

## Jms Multi Sites v1.3









# User's Manual

## **April 2021**

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## **Revision History**

Version	Date	Description	
1.0	11-July-2008	Initial version	
1.0.3	4-Aug-2008	Add a trouble shooting section	
1.0.5	19-Aug-2008	Add a section to describe the possible installation architecture. (Use a single database, or one database for the master and another one for the slave sites, or use as many databases than there are websites).  Add also a section concerning the upgrade of Joomla and	
		extensions	
1.0.5.1	28-Oct-2008	Grammar check	
1.1.0	29-Oct-2008	Jms Multi Sites version 1.1.0 functionalities - Update Site management - Add template management - Add front-end slave site creation - Add payment module sample and configuration (VirtueMart case study) - Add setting and "billable" website quota.	
1.2.0	20-jun-2009		
	21-jun-2009	Add a description on the list of valid character accepted in DB name, DB user and DB password	
1.2.79	16-mar-2012	<ul> <li>Update introduction.</li> <li>Add parameters descriptions</li> <li>Add the Joomla 2.5 installation description and troubleshooting.</li> <li>Replaced several screen with the Joomla 2.5 one.</li> <li>Remove PHP 4.3 compatibility and MySQL 4.x compatibility.</li> </ul>	
1.3.0	30-jul-2012	<ul> <li>Describe the new variant of the product (basic, medium, full)</li> <li>Add Geo-Localisation</li> <li>Add Browser Feature detection (mobile, languages)</li> <li>Allow modifying the default Menu, Template, Language</li> <li>Add redirection (SEO)</li> <li>Add Settings configuration and possibility to have multisites present into any directory</li> <li>Add the "Maintenance" feature to compare a DB structure with SQL statements</li> <li>Extends the Joomla 2.5 / Extension Manager / Database / Fix feature.</li> <li>Add possibility to cleanup (remove) Joomla directories</li> <li>Add possibility to cleanup JMS symbolic links</li> <li>Add possibility to refresh JMS symbolic links after moving an installation</li> </ul>	





	1		
		- Add Multisites User Exit to allow creating hard-coded value and	
		avoid build master index	
		- Add Symbolic Link for Windows Server 2008, Windows Vista,	
		Windows 7 and PHP 5.3.3 or higher	
		- Provide default "templates" rules	
1.3.09	17-apr-2013	Add the logo Joomla 3.0 in the cover page to show that JMS 1.3	
		is compatible with Joomla 3.0	
1.3.16	27-aug-2013	Add the logo Joomla 3.x to reflect that JMS 1.3 is compatible with	
		Joomla 3.0 & 3.1	
1.3.65	21-apr-2017	Reflects that JMS 1.3 is compatible with Joomla 3.x and tested	
	_	on 3.6.5 to 3.7.0 RC2	
1.3.68	25-apr-2017	Update the "About Us" menu to describe the new download ID	
	_	field added to all JMS self declare into the Joomla Update.	
		This new feature requires Joomla 3.7 or higher.	
1.3.77	15-apr-2021	Add Joomla 4.0 – beta-7 compatiblity limitations.	
	_	Disabled the installation of layers under J4.0 as this feature was	
		not used by the users.	
		Add screenshot relative to the installation under Joomla 4.0	





## 1. Introduction

Welcome to the Jms Multi Sites' world. This user manual describes the "Jms Multi Sites" (formerly joomla multisites) that is a native component for Joomla 1.5, 2.5, 3.x and 4.0. The same zip (packages) can be installed on any of these joomla versions.

We didn't check the package on Joomla 1.6 and 1.7. This does not mean that it does not work.

A dynamic website is composed of 2 parts:

- An application that is here the Joomla PHP code; It can be considered as static and the same for any website.
- And a Database where is store the dynamic content. There is also some files and folders like the images that are part of the dynamic content.

The concept of Jms Multi Sites is to give the possibility to use the same Joomla application to create several websites. The idea is to avoid maintain several joomla application (one for each website) when it is possible to use the same application to manage several websites.

"Jms Multi Sites" is a component that extends Joomla with the ability to manage multiple joomla website configurations, while sharing the same Joomla installation.

With Jms Multi Sites you can use a single Joomla installation to manage multiple databases, or the same database with different table prefixes (other than jos\_).

Each Joomla configuration file can be mapped (assigned) to one or more domain names. When Jms Multi Sites receives a query for a special host (i.e. <a href="www.domain1.com">www.domain1.com</a>), it searches to see if the domain corresponds to a special Multi Sites configuration file. When the site is served, it uses the specific configuration file to connect to the database. If no special configuration is found, it uses the default original configuration file (The master website configuration).

The install/uninstall of an extension is also possible within a 'slave' site. A slave site can only re-install an extension that is previously installed on the master site, and only if it has exactly the same version number.

With the new Object Oriented Joomla 1.5 (or higher) architecture, it is possible to reduce the number of places where the core Joomla files will need patching. A special menu is provided to let you supervise the files that are patched and check if the patches are correctly installed. The patches are installed on the current Joomla files to potentially benefit of bug fixes and security fixes.

Under Joomla 4.0 we disabled the installation of JMS layers as such feature was not used by the users in previous versions.





#### 1.1. What is new in Jms Multi Sites 1.1

Jms Multi Sites 1.1 adds new functionality to simplify the creation of slave sites:

- A basic database replication that can be used to create a slave sites based on another one. This allows you to avoid the re-installation of extensions as the database is copied with its content. This functionality allows creating "template websites" rules that will be used during a slave site creation.
- For a Unix platform, the possibility to deploy a slave site into another directory than the master website using the "Symbolic Link" mechanism. A new interface allows you to partially define the new website structure based on master structure.
- The possibility the have specific template, image, media, cache, log, and tmp folders. (When a themes folder is specific, this allows the website to manage [install, uninstall] its own templates.)
- A system to allow creating slave sites from the front-end
  - o It is possible to create "free" slave sites or
  - o Create "billable" slave sites.
    - With this function, it is possible to use an eCommerce application such as VirtueMart to order slave sites and wait until their payment to activate the slave site.
      - You can either develop your own interface with your eShop or
      - In the case of VirtueMart use a special plugin we have developed to propose a fully integrated system. See Plugin "Jms Multi Sites for VirtueMart".

#### 1.2. What is new in Jms Multi Sites 1.2

Jms Multi Sites 1.2 adds new functionality to simplify the creation of slave sites:

- Now it is possible to replicate a website into another DB. The restriction that was present in JMS 1.1.x is no more present.

  Possibility to create MySQL DB user and password on the fly when you have "root" permissions.
- Now when saving a slave site based on a "website template" there is an automatic syncrhonisation of new extension installed.
   This allow now update the "website template" an refresh the children slave site with the new extensions installed;
- The website template contain a new panel that allow define sharing rules. For example, it allows sharing the standard Joomla users, VirtueMart user, all VirtueMart eShop, all Community Builder, all JomSocial, ...
- A new tool menu allow to supervise the extension installed and the DB table installed. With this new tool it is possible to install, uninstall extension based on the one already installed on the master website or in a website template. It is also possible to propagate the install/uninstall to





the children slave sites. You can also decide to share some extension and propagate this sharing to children slave sites.

#### 1.3. What is new in Jms Multi Sites 1.3

Jms Multi Sites 1.3 adds new functionalities to help for the maintenance but also to create variant of a same domain based on geo-localisation but also browser features like mobile phone, language.

The functionalities are spread in different variant of Jms Multi Sites.

The variants are:

- Basic: It contains the minimum functionalities to create websites
- Medium: It adds the geo-localisation and browser feature such as mobile phone detection, browser language
- Full: It adds the layout management and the websites creation from the front-end.

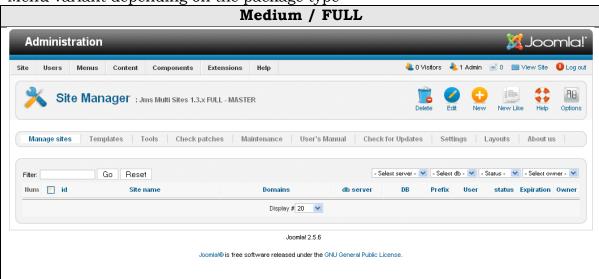
			JMS 1.3.x	
	JMS 1.2.x	Basic	Medium	Full
Default template rule	0	<b>✓</b>	~	<b>/</b>
Change default template, menu,	0	<b>✓</b>	<b>✓</b>	<
language				
SEO – redirect first domain	0	<b>V</b>	~	<
Ignore master website creation for	•	<b>✓</b>	<b>✓</b>	<b>✓</b>
optimisation				
Facility to propagate template	•	<b>✓</b>	<b>✓</b>	<b>✓</b>
actions and specific path				
Possibility to customize the	•	<b>✓</b>	<b>✓</b>	~
symbolic link path (possibility to				
create relative path).				
Possibility to create "dir links" to	•	✓	~	~
create directory and symbolic links				
into sub-directories.				
Symbolic Link for Windows Vista,	•	<b>V</b>	~	<b>~</b>
2008 or higher and Windows 7				
with PHP 5.3.3 or higher				
Additional tools functionalities for	•	<b>V</b>	~	~
joomla 2.5 and 3.x				
- Install templates				
- Install languages				
Maintenance menu	•	<b>*</b>	<b>✓</b>	<b>-</b>
- check DB structure;				
- fix DB structure				
- remove joomla				
- download new joomla				
- install new joomla				
- remove JMS symbolic links				
- refresh JMS symbolic links			_	_
Settings configuration		<b>V</b>	✓	✓





Multisites configuration outside of	0	<b>V</b>	✓	<b>V</b>
joomla				
Geo-localisation	0		✓	<b>✓</b>
- Continent;				
- Countries,				
- States;				
- Cities				
- Zip code				
- Longitude and latitude				
- Metro code (USA & Canada)				
- Area code (USA)				
Browser feature	0		~	~
- User agent (safari, iphone,	_	_		
chrome,)				
- Accepted language				
Check for update	<b>&gt;</b>	•	~	~
Layout menu and website creation	<b>✓</b>	0	•	~
from the front-end			_	

Menu variant depending on the package type



#### **Basic**







#### 1.3.1.Geo-Localisation.

The geo-localisation service is provided via different method. We provide 3 methods:

- Free MaxMind database for country and cities;
- MaxMind online website service that require a license from MaxMind;
- Quova online website service that require a license from Quova.

MaxMind and Quova are companies that provide Geo-Localisation services. We provided 2 different providers to give you the choice concerning their pricings.





### 2. Installation

The installation for Joomla 1.5, 2.5, 3.x and 4.0 is very similar and consists in using the Joomla installer.

In the next sections, the procedure for both Joomla versions is provided.

We start with the installation on joomla 2.5 and after we repeat the procedure with joomla 1.5 and joomla 4.0.

In case where you encounter a problem during the installation that might be caused by a server limitation such as the "upload\_max\_site" that is too small, we also provide an alternate procedure to install Jms Multi Sites from a directory.

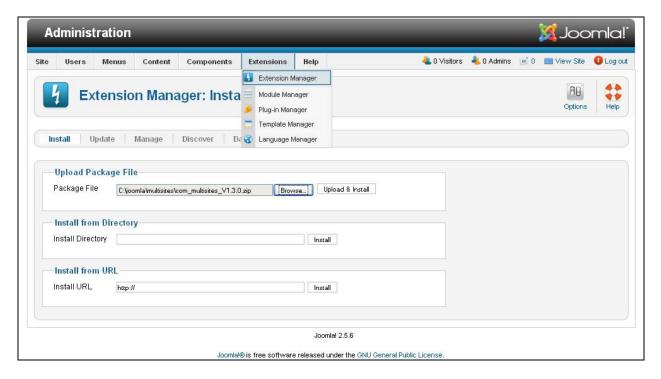
#### 2.1. Installation on Joomla 2.5 and 3.x

Joomla 2.5 (and 3.x) provides a very simple installation interface.

Go in the "extension" menu and select the "Extension Manager" menu.

The installation consists in selecting the "Jms Multi Sites" Zip file in the package field (as shown below).

A tutorial video also show how to install Jms Multi Sites on joomla 1.6, 1.7 or 2.5. <a href="http://tutorial.jms2win.com/joomla/multisite-12x/install-on-joomla-160">http://tutorial.jms2win.com/joomla/multisite-12x/install-on-joomla-160</a>





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When the installation is complete, you are informed that a backup of some core Joomla files is performed in case you decide to uninstall the component.

You are also invited to register the application, although this is not mandatory. If you decline to register, the application will work perfectly. However, you will receive ads in the administration of the multi sites. You can retrieve the "register" button in the "about us" menu.

**Administration** 🔏 Joomla!' 🚢 0 Visitors 🦂 2 Admins 🏿 🖃 0 💹 View Site 🕡 Logout **Extension Manager: Install** Update Manage Discover Database Warnings Installing component was successful. Jms Multi Sites FULL edition. JMS Munt Stess PULL eurton. Single Joomaln installation using multiple configurations. With benefit of multiple configuration files, it is possible to connect on multiple databases or use the same database with different table prefix. When you decide to use the same database for all the websites (master and slave sites), it is strongly recommended to never use 'jos\_' as table prefix. With older Joomla prior 1.5.3, we have notice that standard Joomla installation process can delete the users present in jos\_users table whatever the table prefix If you decide to use as many databases than there are websites, 'jos\_' table prefix is allowed. Ensure also that you have enought rights to create and update joomla files. This is required to install the patches in the standard joomla files. With JMS 1.1x it is now possible to create slave site from a "template website". This feature is particular usefull if you can to propose a "front-end" dynamic slave site creation.

With this version, it is also possible to propose a "billable" front-end website creation and create a bridge with your eShop system (ie. VirtueMart). With JMS 1.2.x, it is now possible to replicate website into another DB, share the user and a limited number of extension. With JMS 1.3.x BASIC edition, this includes the back-end website creation with maintenance facilities and SEO redirection and possibility to change the joomla default templates, languages, menu.

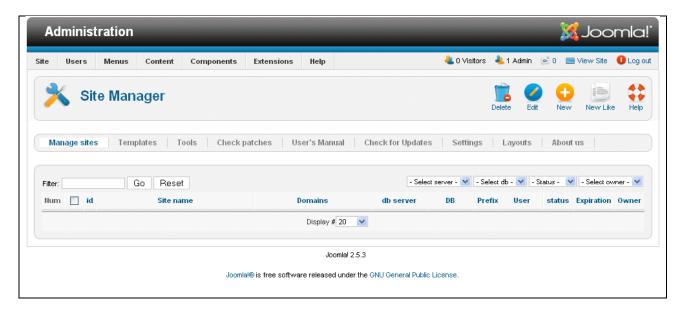
With JMS 1.3.x MEDIUM edition, this adds the geo-localisation, browser feature detection (device, language) facilities to the basic edition. With JMS 1.3.x FULL edition, this adds to the medium edition the layout and website creation from the front-end. A backup directory 'M:'mywebs't1j25/administrator\components\com\_multisites\backup\_on\_install' is created. This directory contain ALL the joomla core files that will be patched. The installation of the patches can be performed by using the MultiSites administration **Geo-localisation** Click on the download buttons to get the latest free Maxmind country and cities Databases required when the Geo-localisation is enabled. You can also get the latest version when you go in the settings menu Country DB (geoip.dat): Please download the free country Download latest country City DB (geolitecity.dat): Please download the free cities DB Download latest cities This component is not registered. Please consider to register this component. If you have purchased this component, it may be asked you that your enter the jms2win.com login an password to allow return the registration code to this product. If you are a new user, it will be proposed to buy this component.

If you don't want to register this component now, ads will be displayed during the administration of this component. Go to the about menu if you want register this component later Register Upload Package File Package File Browse... Upload & Install Install from Directory Install Directory Install from URL Install URL Joomlal® is free software released under the GNU General Public License





When the registration is completed, you are redirected to Multi Sites administration component.



#### 2.2. Installation on Joomla 1.5

Joomla 1.5 provides a very simple installation interface.

The installation consists of setting the "Jms Multi Sites" Zip file into the package field (as shown below).

A tutorial video also show how to install Jms Multi Sites on joomla 1.5. <a href="http://www.jms2win.com/en/tutorial#jms12x-3">http://www.jms2win.com/en/tutorial#jms12x-3</a>

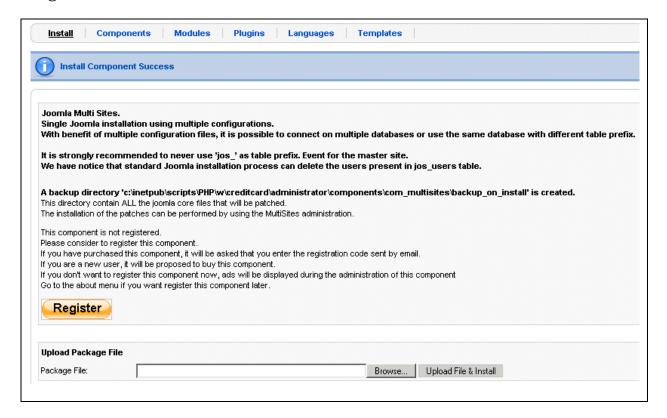




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When the installation is complete, you are informed that a backup of some core Joomla files is performed in case you decide to uninstall the component. You are also invited to register the application, although this is not mandatory. If you decline to register, the application will work perfectly. However, you will receive ads in the administration of the multi sites. You can also retrieve the "register" button in the "about us" menu.



When the registration is completed, you are redirected to Multi Sites administration component.





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## 2.3. Installation from a directory

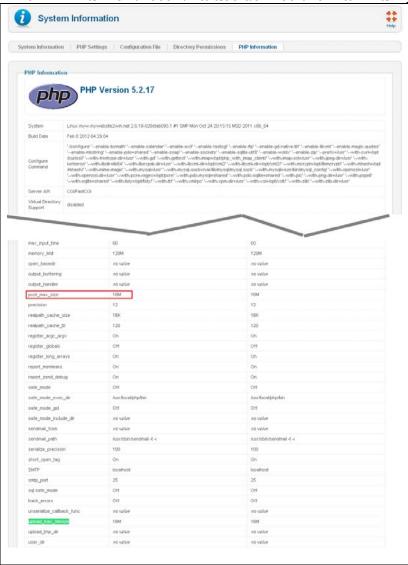
Jms Multi Sites is an extension that makes more than 4.6MB and sometimes the hosting environment has a limitation is the size of "packaged" that can be uploaded.

To identify the maximum size of the files that can be uploaded on your server, you can check your PHP information.

On Joomla 2.5 (and 3.x), you can access the menu Site / System Information and after select the "PHP information" tabs.

On Joomla 1.5, the information is available via the Help / System information.

There, search for the "upload\_max\_filesite" and the "post\_max\_size" parameter. The minimum of these 2 values defines the maximum joomla package size.







If the size that you read in your "System Information" is too small to upload the "Zip" file then you need to proceed with the installation from a directory OR change your PHP "upload\_max\_filesize" and "post\_max\_site".

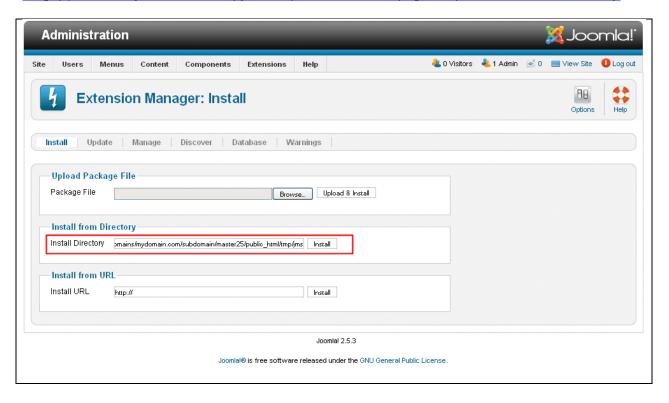
If you are using a server with the WHM administration tool, you can find the PHP environment parameter in "PHP Configuration Editor" with "advanced menu".

In case where you can not increase the "upload\_max\_filesize" and the "post\_max\_size" then you need to install form a directory.

In this case, your FTP tool to copy the "com\_multisites\_V1.2.xx.zip" into a temporary directory. After that, unzip the files present in this temporary directory. Once you have extracted all the files into a temporary directory, you can use the Joomla "installation from a directory".

A video that shows how to proceed with the installation from a directory is available at

http://tutorial.jms2win.com/joomla/multisite-12x/cpanel/install-from-directory



The fact that you upload the file manually with an FTP tool and that you unzip it (uncompress it, extract it). So this avoid the limitation of the maximum upload size. This also may avoid a potential issue concerning a timeout during the upload as you have already uploaded the file manually and also unzipped it.



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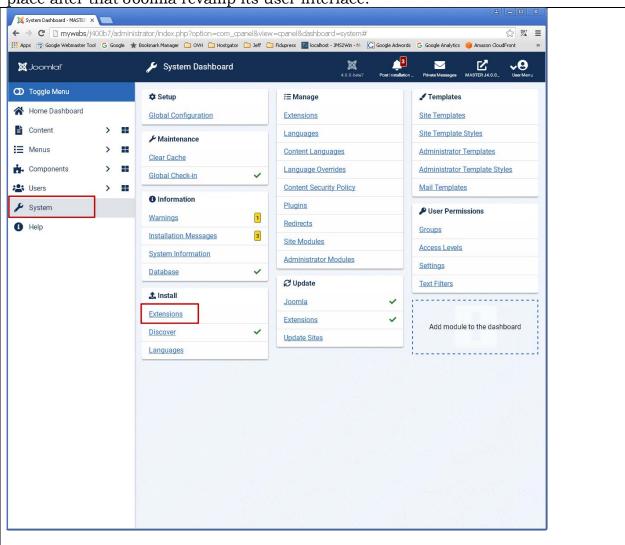


#### 2.4. Installation on Joomla 4.0

The installation under Joomla 4.0 is similar to the Joomla 3.x provides a very simple installation interface.

This is just the Joomla extensions installation menu location that has changed of

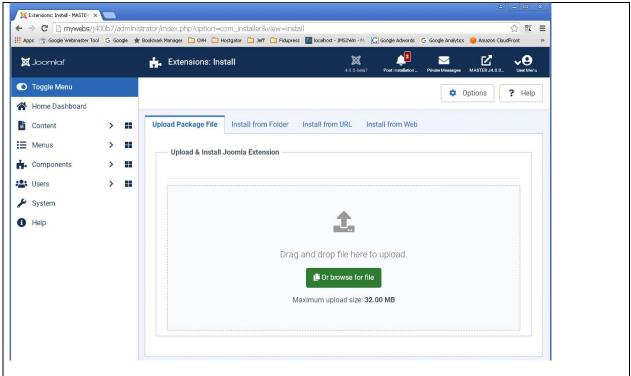
place after that Joomla revamp its user interface.







After that, the extension manager installer is still the same as under Joomla 3.x a show below







## 3. Administration of multiple sites

The administration divided into four main parts:

- <u>Manage Sites:</u> Administration of the 'Slave' sites
  This part consists in giving a 'symbolic' name to a slave site and in supplying the list of domain names associated with this site.
- <u>Template Sites:</u> Administration of 'template websites'
  This part consists in selecting an existing slave site, defining the rules to create a new table prefix, and managing domain rules to create the deployment directory structure.
- **Tools:** Allow the supervision of the extensions installed in the slave sites. A tree display the website dependencies and allows to install/uninstall/share extensions with the master or template (parent) website. It also allow propagate the action to the children website.
- **Check patches:** Administration of the 'Master' site.
  This part deals with installing/un-installing the 'Master' site's patches.
- Maintenance: Allow checking the DB structure but also provide tools to help fix the DB structure modification in case of update/upgrade of joomla or extensions.



The other options give you access to the latest version of this manual, the patches definition update, settings for the "billable" websites, layouts and additional information about the component.

It is also possible to receive a new download ID corresponding to your JMS version as explained in the section 8.3.1 when you login in our <a href="www.jms2win.com">www.jms2win.com</a> website and when you go in your "personal account" menu. There you can request to retrieve a new download ID corresponding to the product that you have ordered. See also our FAQ where you can find a video and a PDF that show how to get the latest version.

- http://www.jms2win.com/en/faq/faq-joomla-multi-sites#cat-122
- Video: <a href="http://tutorial.jms2win.com/joomla/multisite-12x/getlatestversion/index.html">http://tutorial.jms2win.com/joomla/multisite-12x/getlatestversion/index.html</a>
- PDF: <a href="http://www.jms2win.com/en/documentation/doc\_download/20-how-to-get-the-latest-version">http://www.jms2win.com/en/documentation/doc\_download/20-how-to-get-the-latest-version</a>





### 3.1. Check patches

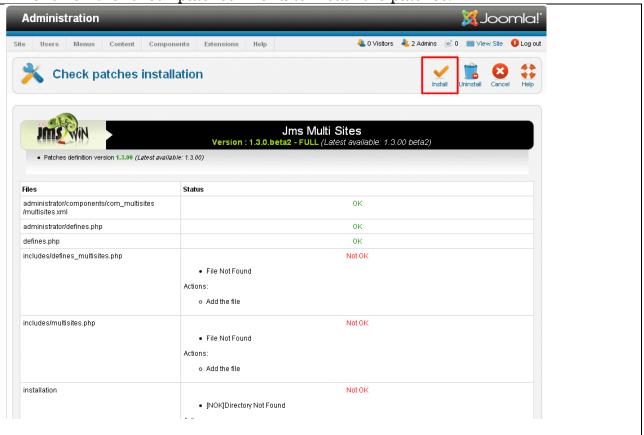
Once the component is installed, the first operation that needs to be performed is the installation of the patches.

Each time you access the management of the site, verification is performed and a warning message will inform you of a potential issue.

"Check patches" scans several files and directory to verify if the patches are installed.

For each file or directory, a diagnosis with a short description of the corrective action is reported. The permission of the files and directories is also checked to report potential problems during the patches installation. This should let the user know where to update permissions before installing the patches.

Click on the "check patches" menu to install the patches.



As you can see, a very limited number of patches are required to extend Joomla with Multi Sites functionality. Some of the patches concern core Joomla files, and others concern some extensions like VirtueMart, Community Builder, JCE, etc. Taking benefit of the new Joomla Object Oriented Architecture, it is now possible to gain control of some part of Joomla, and in particular, to perform some preprocessing without changing Joomla itself.





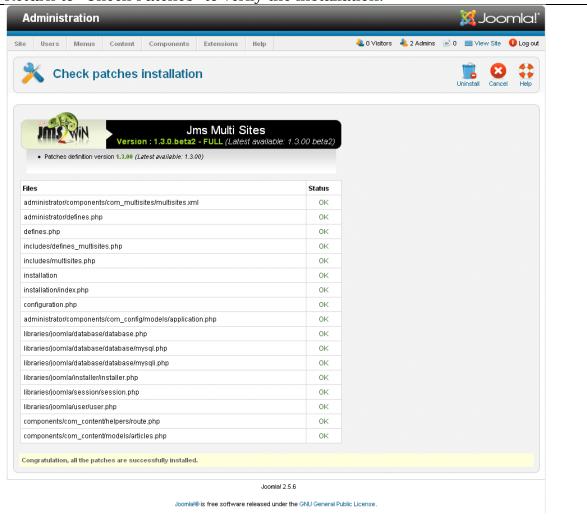
#### 3.1.1.Install the patches

If the patches installer finds that any patches are missing, the "Install" button will be visible.



The installation will execute all the actions reported by "Check patches". When the patches are installed, you might need to re-login into the administration screen.

Return to "Check Patches" to verify the installation.



#### Remark:

Among all the patches that are installed, there is the joomla "installation" directory that is restored. The "installation" directory that is restore is an original "English" version that comes from the "joomla.org" packages.



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If you have installed your Joomla for another languages and that you used another joomla distribution package (ie. Joomla.fr), then we strongly suggest that you restore the "installation" directory from your original package in which the language files will be present.

#### 3.1.2. Uninstall the patches

When at least one patch is installed, the "Uninstall" button will be available. This button allows you to restore all files that were saved during the installation of the patches.

## 3.2. Manage Sites

The management of the sites is very simple and consists of the declaration of the domain name (or sub-domain) you wish to share the master Joomla installation with.

Before describing the creation of 'slave' sites, we present possible architecture and organisation.

#### 3.2.1. Multi sites architecture

#### 3.2.1.1.Databases architecture

Jms Multi Sites architecture mainly consists of using separate configuration files for each individual website. To separate the content of each website, it is important to use a different database, or the same database with different table prefix (other than jos\_).

A limitation discovered in an old standard Joomla installation which concerns the 'jos\_users' table: all its records are deleted during the standard Joomla installation no matter what table prefix the user has decided to use during this installation. It seems that this limitation is no more present in Joomla 1.5.3 or higher.

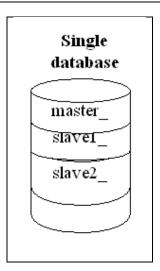
To prevent the deletion of the 'jos\_users' records created by another website, it is mandatory to never use the 'jos\_' table prefix if the database is shared by multiple sites.

This leads to the following possible architectures:

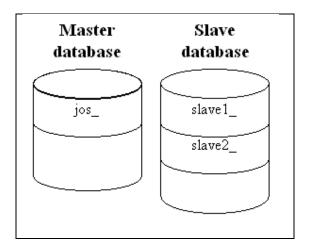
• **Single database** to store the information of all the websites (master and slave sites). In this case, 'jos\_' table prefix is forbidden.







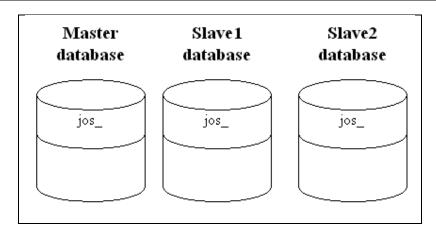
Use one database for the master site and one database for the slave sites. In this case, 'jos\_' table prefix is allowed for the master database and is forbidden for the slave database.
 This architecture is use when you install Jms Multi Sites on an existing website which has limitations on the number of databases you can create.



Use as many databases as there are websites.
 In this case the "jos\_" table prefix is allowed for all the websites.
 When your hosting provider does not limit the number of databases, you can use this architecture to work with the Joomla default installation architecture.







#### 3.2.1.2.Location on the disk

To make all the websites saw from internet as totally separated websites, we recommend to avoid creating slave site into a subdirectory of another website.

We suggest the follow directory name convention when this is possible.

When using a domain name, we suggest to deploy the website into a directory "domains". So that each domain will be beside of each other and never be a subdirectory of an existing website. This avoid for example that a Search Engine index the subdirectory instead of the domain.

When using a subdomain, we suggests to groups all the subdomains of a domain into a "**subdomains**" directory. For same reason, this avoid to have the subdomains discovered as a subdirectory of something else.

In addition, for the domain and subdomains, we suggest to deploy the website into a "public\_html" directory. So that, this give you the possibility to have privates directories beside the "public\_html" one. This can be used for example to have a "download" directory, a "backup" directory, …

URL	Directory location		
www.domain.com	[HOME]/domains/domain.com/public_html		
mysubdomain.domain.com	[HOME]/domains/domain.com/subdomains/mysubdomains/public_html		
Domain.com/subdirectory	[HOME]/domains/domain.com/public_html/subdirectory		

The architecture must be adapted depending on the HTTP Server administration tool. For example, Plesk administration tool use a similar directory structure where the "public\_html" is replaced by "httpdocs".

On cPanel, we recommend also recommend (when it is possible) to create the "domains" directory beside the "primary domain" [HOME]/public\_html.





Some hosting provider may sometimes require that all the domains and subdomains are created under the "public\_html" that result in the [HOME]/public\_html/domains/...

In this case, this means that all your domains and subdomains might become discovered as a subdirectory of your "primary" domain. If this is the case, as you put all your domains into the "domains" directory, you could add a "robot.txt" to forbid the indexation of the domains directory when the Search Engine access the primary domain.

#### 3.2.2. Create a new 'Slave' site

When you want to create a new website, you can either enter some information here, or make reference to a "website template" that contains the rules to create the new website. The definition of a "website template" is given in chapter "Website template" management."

In general, we recommend to start creating a JMS template rule to control all the parameters of the website creation and in particular the parameters relatives to the "files and folders" sharing. The JMS template rule will provide the default values that can be overwritten when defining the slave site.

To create a slave site, three pieces of information are required:

- a **site identifier**: The identifier is used as directory name where Joomla will store the new configuration.php file created by the Joomla standard installation.
- a **site status:** This status indicates whether the websites can be used in production, or should be hidden. This status is also used in conjunction with 'billable' websites that can be created from the front-end. In this case, the website status can be synchronised with the order status.
  - There is also a 'payment reference' field that display the payment reference used when creating a 'billable' website from the front-end.
  - When the status is not "Confirmed", the slave site will be considered as not present by JMS. This means that the list of domains will be ignored and navigating to this domain will show the master website.
- a **List of domain names**: This is the list of domain names that will be routed to the correct slave site.

#### Optional fields

- **owner:** this allows you to assign a user to the website. Only the websites having an owner defined can be displayed in the front-end.
- **expiration date:** this allows you to define a publishing date for the website. When the date is not present, this means it will always be displayed. To modify a date, use the button just after the field to select or clear the date.

In addition to the required site definitions, it is possible to define parameters to duplicate a reference database based on a "template website," or specific rules.





The idea behind this is to define rules that will be used when replicating the table present in the reference database. When using with MySQL 5.0 or higher, you can also possible to define rules to share some extensions.

The replication can be either performed in the same database or in a new database. When sharing extension, it is often recommended to use the same database to avoid MySQL user permission problem.

The replication consists of copying all the tables having the Joomla prefix of the "source DB" into a new table prefix defined here (manage site) or in a template.

At the same time, it is possible to customise the new database and its associated Joomla configuration file.

Whe sharing some extension (ie. Joomla users), there is no copy of the table but the creation of a view on the existing table. This creates a kind of link or shortcut to a physical table.

Below are the parameters of the Database and/or Joomla configuration file that can be configured.

- a **template website:** This combo box lists the available templates defined in the "template" menu.

A template is defined by:

- Its name (or master DB)
- A DB host, DB name, DB user, DB password
- A rule that describes the new "to" DB prefix

When you select a template, this refreshes the "template directory" information to help the user decide if they want to use the template values or change them.

share the whole site: when enabled, it means that in fact you want to the same DB connection than the website defined in the template. In this case, only the "configuration.php" is copied and you can just give a new title to your website or defined a specifiy directory for its deployment and template folders. This may be usefull when you want share the same website between all domains and just change the "themes" content.

<u>Remark:</u> You cannot change the default theme selected in the website but just change the PHP code relative to this theme. The selection of the theme is a parameter that is saved into the DB and as you share the same DB connection (including the same prefix) this means that modifying this selection will affect all the slave site that share the same DB connection.

#### Optional parameters added in JMS 1.2.x to create a slave site into a new DB:

- the **new DB server name:** when present, or when a template is selected with a DB server name, this allows you to define the parameters to create the slave site into a new DB.
  - When both "template" and the current field are empty, the DB server name is the one of the website that will be replicated (same DB).
- the **new DB DB name:** when present, or when a template is selected with a DB name, this allows you to define the parameters to create the slave site into a new DB.

When both "template" and the current field are empty, the DB name is the one of the website that will be replicated (same DB).

The valid characters of a DB Name are:

Letters: 'a' to 'z', 'A' to 'Z';





- Digits: '0' to '9';
- Special characters: '\_.-{}'
- the **new DB user:** when present, or when a template is selected with a DB user, this allows you to define specify the MySQL user that must be used to access the DB. When the user does not exists, JMS try to create the user using the DB login present in the website to replicate. It is also possible to force using a specific MySQL root user. This MySQL root user is defined in "multisites.cfg.php".

The valid characters of a user name are:

- Letters: 'a' to 'z', 'A' to 'Z';
- Digits: '0' to '9';
- Special characters: '\_.,;:=-+\*/@#\$£!&(){{||<>}\$|
- the **new DB password:** when present, or when a template is selected with a DB password, this allows you to grant the user with a specific password. When the user does not exists, JMS try to create the user using the DB login present in the website to replicate. It is also possible to force using a specific MySQL root password. This MySQL root password is defined in "multisites.cfg.php".

The valid characters of a password are:

- Letters: 'a' to 'z', 'A' to 'Z';
- Digits: '0' to '9';
- Special characters: '\_.,;:=-+\*/@#\$£!&(){{[]<>}\$'
- the **new DB prefix:** when present, or when a template is selected with a table prefix rule, this unlocks the fields that allow you to customize the database and also trigger the creation of the Joomla configuration file.
- the **new site title:** This allows you to specify a new website title. This replaces the website title that was present in the "from template website" that is replicated to create this new website.
- the **new admin email:** This allows you to give a new email address to the "admin" user selected in the template. When there is no template (or a template without an "admin user" selected), the first "Super Administrator" user is used to setup a new email address.
- the **new admin password:** This allows you to define a new administrator password to the "admin user" selected in the template. When there is no template (or a template without an "admin user" selected), the first "Super Administrator" user is assigned the password.
- the **new media folder:** This allows you to specify a new Joomla Global Configuration, system settings, and media folder settings.
  - When specified, the "source" media folder is copied into the new location.
  - The source media folder is either the source path defined in the "template website" database, or when there is no database, the path defined in the master website.
- the **new image folder:** This allows you to specify a new Joomla Global Configuration system image folder settings.
  - When specified, the "source" image folder is copied into the new location.
  - The source image folder is either the source path defined in the "template website" database or when there is no database, the path defined in the master website.





- the **new theme folder:** This allows you to define a specific "template" or theme front-end directory. When it is specified, a new directory "/template" directory is created and the content will be either a copy (for Windows servers) or a symbolic link (for Unix servers) to all the templates present in the source template directory.
  - The source theme folder is either the theme folder from the "template website" (when selected) or from master website.
- the **new FTP enable:** This allows using the Joomla FTP layer to create the slave site. When enabled, it gives access to the FTP Host, port, user, password, root path.
- the **new FTP host:** This is the IP or domain name of the FTP server.
- the **new FTP port:** This is the port number of the FTP server.
- the **new FTP user:** This is FTP user for the login.
- the **new FTP password:** This is FTP password for the login.
- the **new FTP root path:** This is the path that must be used by the Joomla FTP layer to create the slave site. Becarefull that this path is relative to the current website root path. For example if you current "master" has an FTP root path that is "/public\_html" and that you want to deploy something in a directory like "/domains" that is beside the "/public\_html", the value that must be entered in the new FTP root is "/public\_html/../domains"

When a website is already defined, additional information is displayed. The information displayed from the Joomla configuration is:

- DB server name;
- DB name;
- DB table prefix;
- DB login or User name;
- DB password.

#### 3.2.2.1.Internationalized Domains Names

Internationalized Domain Names, or IDNs, are web addresses that can contain non-ASCII-characters that are common in many languages like German, Arabic, Hebrew, Chinese etc

(http://en.wikipedia.org/wiki/Internationalized\_domain\_name). Since the standard for domain names does not allow such characters, the Internationalized Domain Names convention translates an internationalized domain into a standard ASCII format. A domain like "münchen.de" might get translated to "xn--mnchen-8vb.de". This means: when you type in www.münchen.de, the Domain Name Server will return www. xn--mnchen-8vb.de as the URL.

In order for Multi Site to work properly with these Internationalized Domain Names, you have to enter the translated URL into the List-of-Domains-field in the Site Management. If you do have an IDN domain, go to your Domain Registrar and log into your account. The information on how the IDN is translated should be listed there somewhere. Copy this translation and paste it into the List-of-Domains-field and Multi Site will work properly.





#### 3.2.2.2. "multisites.cfg.php" configuration

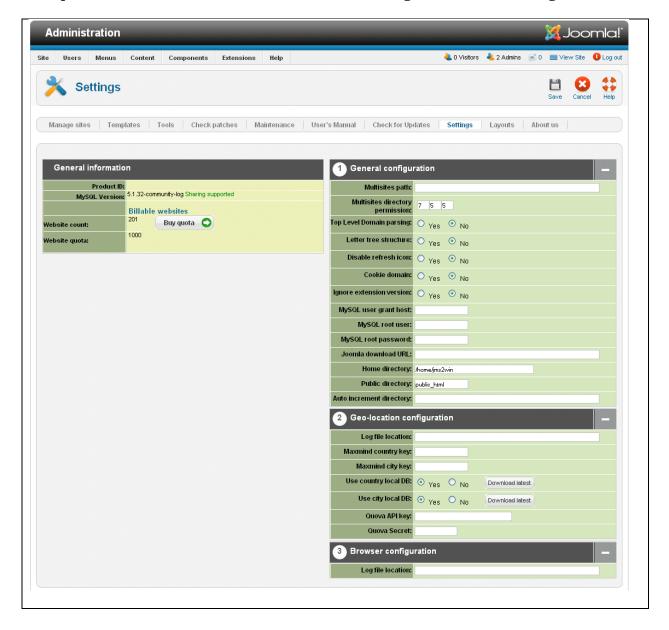
It is possible to configure the behaviour of Jms Multi Sites for specific cases.

The specific configuration parameters are grouped into a specific

"multisites.cfg.php" file that is located in the

"administrator/components/com\_multisites" directory.

The parameters here below described can be managed from the "settings" menu.



Parameter	Description	
JPATH_MULTISITES	It defines in which directory the	
Is exceptionally located in	"multisites" data are stored. By	
multisites_path.cfg.php file	default they are stored in the	



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	"/multisites" directory located in the root of the website.
MULTISITES_DIR_RIGHTS	This is the parameter that allows modifying the permission of the directory created by JMS. The default value is "0755".
MULTISITES_TLD_PARSING	This parameter is used to parse the URL and recognize the "Top Level Domain". Some domain like "co.uk", "co.au", are composed of several words that should be recognized as a single one. When it is set to false, this ignore the parsing and the TLD is not detected. This impact the performance as there is no more need to parse each URL.
MULTISITES_LETTER_TREE	When set to true, this modify the way that Jms Multi Sites saves the slave site information on the disk. Rater than to use the site ID as a directory name, this create a directory tree where each letter of the Site ID is a directory. This is used when a large number of slave site is expected (over than 1000 websites). This avoids having inside a single directory a very large number of subdirectory.
MULTISITES_REFRESH_DISABLED	When set to true, this disable the computation of the "refresh icon" that may consume a lot of resource as it requests to open/close each slave site DB and count the number of tables present for each websites. When a large number of websites is expected, we recommend to disable the refresh icon.
MULTISITES_COOKIE_DOMAIN	Sometime, it is required to avoid that the "cookie domain" is computed by JMS when sharing the users between websites.
MULTISITES_IGNORE_MANIFEST_VERSION	Is an experimental parameter that when it is set to true allow ignoring the verification of the version of the extension when installed in a slave site. The idea is to allow upgrading extension from a slave site before





	upgrading it in the master.
MULTISITES_DB_GRANT_HOST	Allows to specify which DB host
Wobiistibo_bb_diditti_itoot	value must be used when creating a
	DB dynamically.
	In general, the value is "localhost"
MULTISITES_DB_ROOT_USER	Allow specifying the MySQL "root"
MODITSTIES_DB_ROOT_OSER	user that must be used when
	creating a DB dynamically or
MINIMES DE DOOR DOW	creating a MySQL user dynamically.
MULTISITES_DB_ROOT_PSW	Provide the MySQL user password
	corresponding to the root user.
Joomla download URL	Allows providing a specific URL
	where the latest joomla version can
	be downloaded. It is used by the
	"maintenance" menu.
MULTISITES_HOME_DIR	Specify the home directory of the
	hosting environment.
	On cPanel, this is something like
	"/home/account"
	This value is used by the {home}
	keyword.
MULTISITES_PUBLIC_DIR	Convention used to identify a
	"public" directory.
	On cPanel, this is generally
	"public_html".
	On Plesh this is generally "httpdocs"
	On other system, this is sometimes
	"www" or "html".
	This value is used by the {public}
	keyword.
MULTISITES_AUTOINC_DIR	Auto Increment directory allows
MODITOTIES_AUTOINC_DIK	· · · · · · · · · · · · · · · · · · ·
	customizing the location where the
	"autoinc.dat" file is create to store
	the auto increment value. When
	empty, the "autoinc.dat" file is
	created in the
	"administrator/components/com_multisites/classes" directory.
	directory.

Parameter	Description
MULTISITES_GEOIP_LOGFILE	Path where must be stored the Geolocalisation switch decisions. This is the full path to the file. Ie:

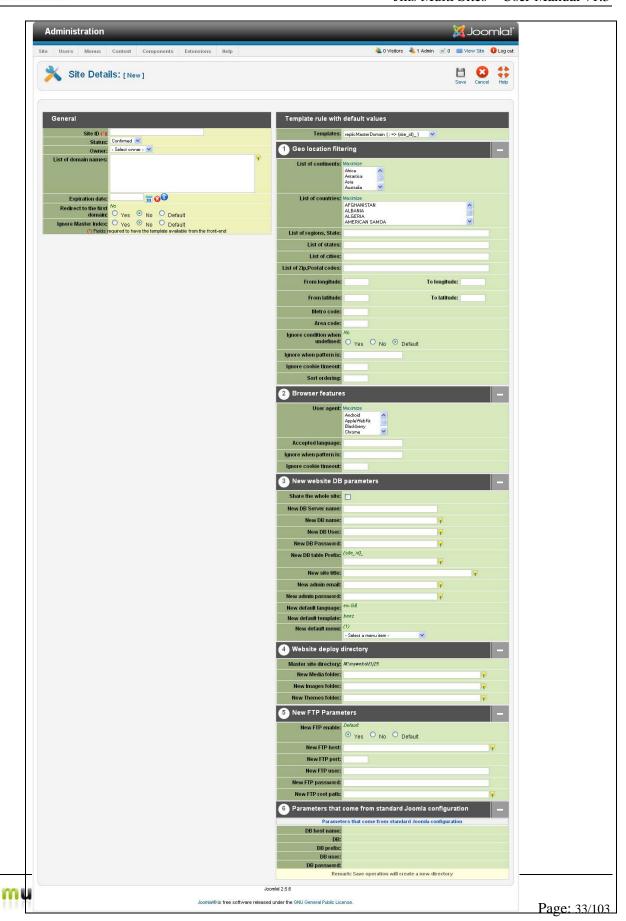




	{root}/logs/geoloc.php
MULTISITES_GEOIP_MAXMIND_LICENSE_KEY_COUNTRY	This is the licence key
	that you can get from
	"maxmind.com"
	website.
MULTISITES_GEOIP_MAXMIND_LICENSE_KEY_CITY	This is the licence key
	that you can get from
	"maxmind.com"
MULTISITES_GEOIP_MAXMIND_ICC_ENABLED	Enable/Disable the
	Geo-localisation
	processing based on
	the free country data.
MULTISITES_GEOIP_MAXMIND_CITY_ENABLED	Enable/Disable the
	Geo-localisation
	processing based on
	the free city data.
MULTISITES_GEOIP_QUOVA_APIKEY	License key of "quova"
	provider
MULTISITES_GEOIP_QUOVA_SECRET	License key of "quova"
	provider









#### 3.2.3. Configure the 'Slave' site

You can create slave site using 3 different methods:

- Fresh slave site using the standard Joomla installation;
- Replicate an existing website using a rule defined in the "website template"
- Share an existing website using its current DB connection.

#### Fresh slave site:

The configuration of a new fresh slave site is very simple, and uses the standard Joomla installation. If you plan to use the same database for multiple web sites, we recommend you perform a backup before installing the new website.

We assume that you have declared all the domains on your server and that you have routed them to the same Joomla installation.

#### Replicate an existing websites using rules define in a template:

In this case, you will not have to re-install extension and other data. The website that is defined in the template will copy totally copied to create the new website. So you can pre-install extension, pre-fill content, ...

#### *Share an existing website:*

When sharing an existing DB connection, this mean that you don't create a clone of the website but really re-use the same website.

This may be usefull if you want to create identical website with just some delta like contact form (ie. Dealers contact infos, ..), change banner, provide different layout of a same themes; ...

Becarefull that there are many limitation due to the fact that you use the same DB content.

There is also 2 way to deploy a slave site on the disk:

- Share the same directory than the master (case of Windows platform). That was the solution propose in JMS 1.0.x
- Deploy a slave site into a specific directory when the symbolic link is allowed.

Solution added in JMS 1.1.x. For this version, the directory must exist.

With JMS 1.2.x, it is now possible to request the creation of the deployment folder.

In both case, the configuration depends on your personnel environment. Here below, we give some guidance for some specific cases:





- We illustrate the case where you are using an Apache server that administrate yourself;
- We illustrate the case with Cpanel that has been used by one of our customers;
- We illustrate the case with Plesk used by another customer. Refer to your server administrator, or contact your hosting provider if you need help configuring domains correctly.

In all the cases illustrated below, the objective is to define the same folder path for all the websites.

When you deploy a slave site into a specific directory, you have to modify the "folder path".

Suppose you have a master website with the domain "www.master.com" physically installed in the directory '/public\_html/master' and that you have defined 'slave 1' with the domain "www.slave1.com".

This means that you have to setup your environment to declare the "www.slave1.com" that it is mapped to the same directory than the master '/public\_html/master'.

The expected result is:

Website	Domain	Folder path
Master	www.master.com	/public_html/master
Slave1	www.slave1.com	/public_html/master

#### 3.2.4. How to configure httpd.conf with apache

In apache, you can configure the "httpd.conf" file to declare multiple virtualhost entries pointing to the same directory.

#### 3.2.5. How to configure CPanel

Some hosting providers use CPanel to administer the domain.





Most CPanel users know how to create a domain but not necessary how to provide a specific folder for this domain. Usually, the users create a domain that has its own folder.

When working on Unix platforms, Jms Multi Sites Version 1.1.x or higher gives you the possibility to deploy a website in a different directory than the master. In this case, you can specify the directory that has be created by CPanel., from within JMS

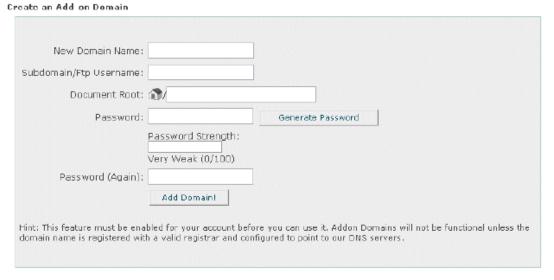
If you want to use the same directory as the master website (as we recommend), the procedure below is provided by one of our customers.

We are providing it to help CPanel users in the configuration of their system. We cannot guarantee the accuracy.

1. In the CPANEL, click on AddOn Domains section:



2. Once in the AddOn Domains, then you will see an interface similar to this:



- **New Domain Name:** the "slave site" domain name (ie. slave1.com)
- **Subdomain/Ftp Username:** Any name you choose.
- **Document Root:** This is the root where the website is installed. (ie. /domains/slave.com/public\_html)

Sample case using our recommendations.

Let suppose that you have a cPanel account with the primary domain = "mywebsite2win.com" and that the location on the disk is "/home/mywebsite".



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Create an Addon domain with "slave1.com" would result with the following values:

- New domain name = slave1.com
- Subdomain = slave1
- Document root = domains/slave1.com/public\_html

In the JMS slave site definition, the values are:

- Site ID = slave1.com
- Domain list = <a href="www.{site\_id">www.{site\_id}</a>, {site\_id}</a>
- Deploy folder = /home/mywebsite/domains/{site\_id}/public\_html

## 3.2.6. How to configure Plesk

Some customers use Plesk for the administration of their domains.

Most Plesk users know how to create a domain but not necessary how to provide a specific folder for this domain. In general the users create a domain that has its own folder.

When working on Unix platform, Jms Multi Sites Version 1.1.x or higher offers you the possibility to deploy a website in a different directory than the master. In this case, you can specify the directory that is created by Plesk from within JMS.

If you want to use the same directory as the master website (as we recommend), the procedure below is provided by one of our customers.

We are providing it to help Plesk users in the configuration of their system. We cannot guarantee the accuracy.

#### 1. First Login into Plesk:

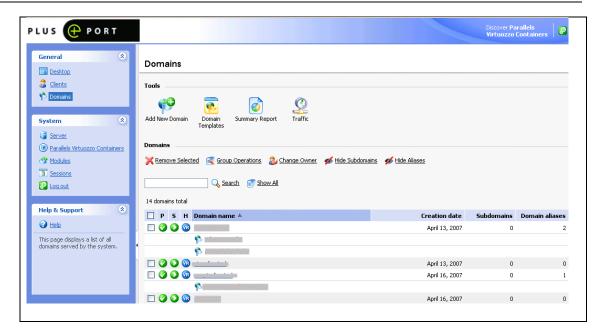


## 2. Click on Domain

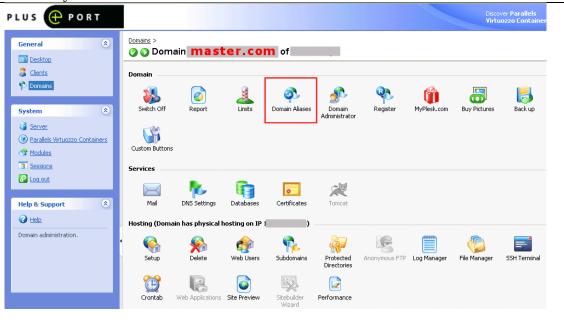


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3. Click on your master domain



4. Click on domain alias



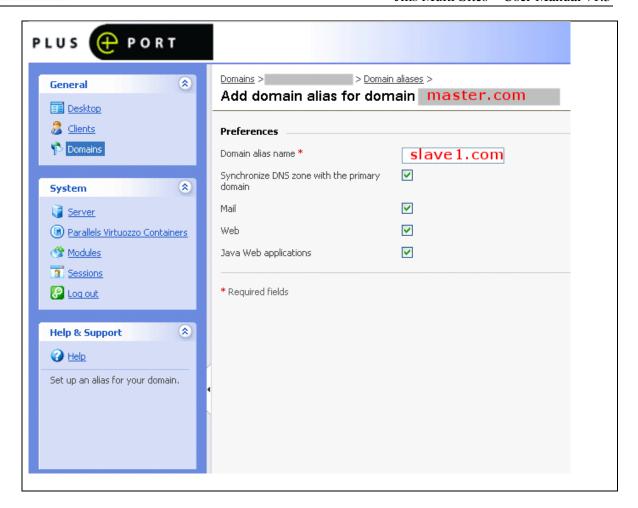




## 5. Add domain alias







Type in the Domain Alias Name Field your new SLAVE domain name with no www in front of it ex (slave1.com) and press OK.

Also, make sure you don't host the newly made Domain alias name on the Plesk server as a full domain. You will get the error Domain name already exists. In this case delete the existing domain and after that make the Alias.

When the Alias is in place make sure that the DNS records are pointing to the right domain IP.

Then when you enter your new domain alias slave site into you web browser it will show you the new Joomla installer.

Plesk will configure your apache with all the rest of the virtualhosts etc nothing more than making an alias to the master domain and make sure plesk isn't using the same domain name in a other domain as alias or as full domain name then you get an error.

#### Remark:

If you create a specific domain in Plesk, in most cases, you need to change the permission present in your server to accept sharing files and folders between the different domain and subdomains.





One key element that you have to check on your Plesk environment is the "open\_basedir" parameter that is frequently computed by Plesk to restrict the access to some specific directory.

If the "open\_basedir" parameter is used, then you may have to modify the default value computed by plesk by creating a "vhost.conf" file as documented in the Plesk help (appendix II).

You can see the value of the "open\_basedir" when you display the "PHP Information".

#### 3.2.7. Proceed with the standard Joomla Installation

The procedure below will demonstrate how to install a fresh slave site.

If you chose to replicate a website using a "template website", this section can be ignored, as the database and configuration file will be computed based on the rules defined in the "template website".

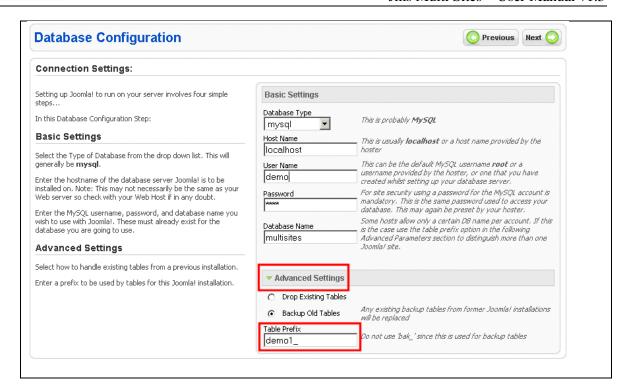
When the new domain names are correctly routed to your Joomla directory, the rest is performed by Jms Multi Sites. It uses the domain name to retrieve the Multi Sites identifier and checks if the Joomla configuration is present. If you access the domain for the first time, it redirects you to the standard Joomla installation that allows you to describe the new configuration.



Continue the installation until you arrive to database configuration.







The most **important** here is to correctly select the appropriate **database name** and the **table prefix**. If you don't understand this, please refer to the possible architectures in previous section.

To avoid having an impact on another Joomla installation, it is important to carefully choose the database name and prefix, particularly when you choose an existing database.

## **WARNING:**

Prior to Joomla 1.5.3, our test shows us that prefix "jos\_" CAN NOT BE USED when multiple sites share the same database. This is due to a problem we noticed during the standard Joomla installation procedure. In fact, Joomla always delete the jos\_users records no matter the table prefix chosen. This makes the administration of the site using the "jos\_" prefix impossible. If by mistake you have a table jos\_users where all the records are deleted, you need to restore its content from a backup. Normally, the standard Joomla installation performs a backup of the jos\_users where you can retrieve them. Therefore, it is **strongly recommended** never to use a database that has tables with "jos\_" prefix.

#### Don't remove the installation directory:

At the end of the installation of the new site, Joomla asks you to delete the installation directory.

With Joomla multisites, this is not required. We strongly recommended that you do not remove the Joomla installation directory. Jms Multi Sites is able to detect if the installation is already completed and will grant access to the administration and the front-end.





If you delete the installation directory, you will have to restore it each time you will want create a new 'slave' site. It is possible to restore the installation directory from the "Check Patches" menu. Jms Multi Sites is supplied with a copy of this installation directory.

When working on Unix (and if you have chosen to deploy the slave site into another directory than the master) JMS will create "Symbolic Links" to the master folder. In this case only, you can delete the installation "Symbolic Link" as it only affects this slave sites.

## 3.2.8. Installing an extension

To maintain consistency between all the websites sharing the same Joomla installation, it is also required that each 'slave' website shares the same extensions coming from the 'master' website. The master website can be seen as a repository for all the slave sites.

Since many extensions are available on the internet, and it is difficult to know exactly the database table and other parameters they use, we have decided to allow each 'slave' website to re-install the extensions previously installed by the 'master' site.

'Slave' sites can only re-install an extension that has exactly the same name and same version number.

A consequence of the re-installation is that all files present on the disk for this extension will be overwritten therefore causing a potential damage to the configuration file used by the extension.

When you re-install an extension (in particular components) it is therefore recommended to re-configure them exactly the same way for all websites.

This procedure only affects components, modules and plugins.

Languages and templates are not concerned as they are automatically shared by all the websites. The re-installation of Languages and templates is disabled from within the slave site.

## 3.2.9. Uninstalling an extension

It is possible to remove an extension from a 'slave' site.

In fact, the uninstalling of an extension from a 'slave' site only consists of deleting the entries that describe the extension in the database.

This also calls the "uninstall" queries present in the extension manifest.

The other specific uninstall process defined by the extension are not called because it is not possible to know whether some files on the disk will be destroyed. Therefore, this part of the un-installation of an extension is disabled.

This could also result in database ghost table.

Therefore, we do not recommend uninstalling an extension that could lead to ghost database tables.





# 3.3. "Website template" management

Website template is a feature that allows you to define generic rules that are used to create new web sites. The rules are very important when you want to use the "front-end" slave sites dynamic creation.

When you propose to your front-end "registered users" the possibility to create slave sites, the "website template" is used to compute the parameter that would normally be introduced by the JMS administrator when using the "site manager".

The "website template" is used to define the rules for:

- Which database must be used as reference database to create the new slave site. In fact, in the template, you select an existing slave site where all the information, such as the database and the configuration file, will be used and replicated to create the new slave site.
- You also have to define the rules on how to create a unique table prefix
- The rule to create a unique site ID.
- The "generic" domain name must also be specified.

  It is possible to use sub-directory which is computed based on some parameters provided by the user. In particular, it is possible to define a domain name alias.
- When you decide to publish the template to the front-end to allow dynamic slave site creation, it is required to specify which user will be used as administrator.

Other parameters can also be specified to customize the slave site that will be created with the temple. You can also define:

- A deployment folder (this is only available for unix platform [not windows] because it will use Symbolic Links that are not available on windows. This field can be used when the hosting provider provides tools like Cpanel, Plesk, or other applications that assign a specific directory for each domain by default. As some customers may encounter difficulties setting up those tools, JMS provides the functionality to deploy a slave site into a specific folder, and it will create symbolic links on the master directory.
  - Also see the "folders and files" panel that can be used to customise the deployment.
- A new media folder;
- A new image folder;
- A new theme (template) folder

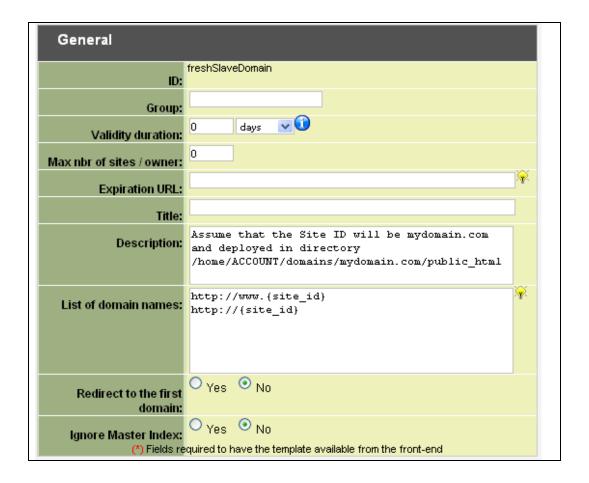
With the "website template" you can also define some rules on the directory structure that you want for a slave site when it is created.

When working on Unix platform, it is possible to create a "root" website directory that is based on Symbolic Links. The objective of the "Symbolic Links" is to provide the possibility to have a specific disk workspace for the slave Website and increase the security when the slave sites are available from the



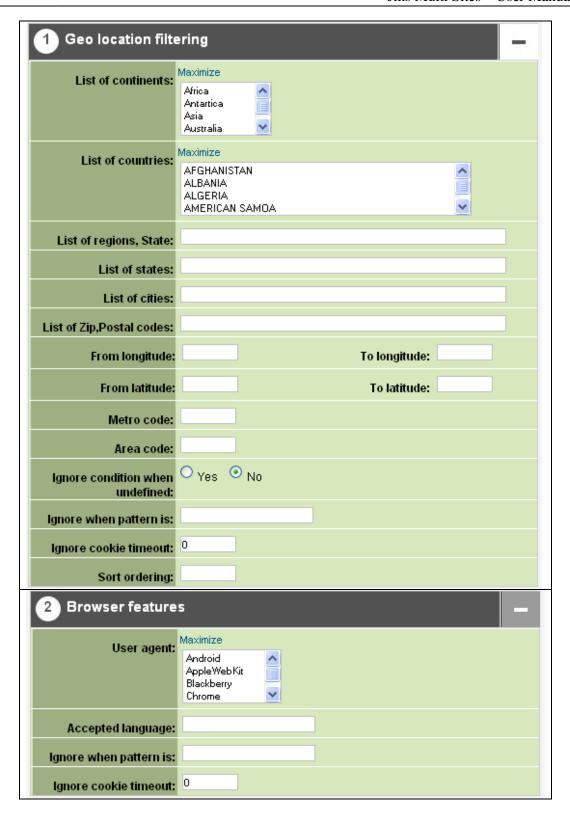


front-end. This give for example the possibility to have specific templates folders deployed for the customers and not share them for all the slave sites.



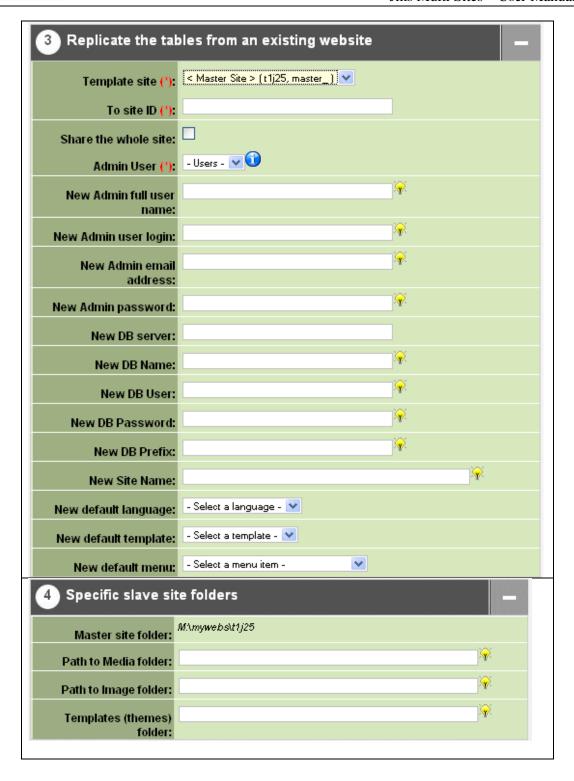






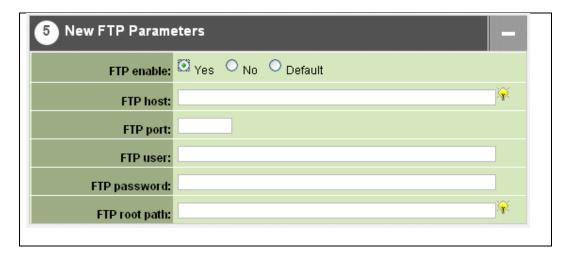












As you can see with all the screenshot, parameters are groups by functionalities.

#### General

- **ID:** This is the identifier of the template.
- **Group:** When defining a menu entry to allow front-end user create slave sites, it is possible to filter the template displayed on a specific group name. Enter any text you want to use to group some template into a same menu here. You could use this group field to create a category of templates or whatever.
- **Validity:** This parameter gives you the possibility to define a validity duration when you propose a "billable" website service. When present, it may be used to compute a slave site expiration date.
- **Expiration URL:** This parameter gives you the possibility to redirect the user to a specific page when the website is expired. As you can resolve keywords in this field, you can provide a redirection URL that is specific to each slave site. For example, you could create a special "off line" webpage or propose a renew system or even send automatically an email to the owner of the slave site to inform him of the expiration, ... In fact, you could develop any extension that will be triggered with the parameters that you could attach to the URL.
- **SKU:** This is a field you can use when you develop a bridge with your eShop or shopping cart system. In the case of "MultiSites for VirtueMart", we have used this parameter to specify an external reference to a product defined in VirtueMart. This allows you to use the VirtueMart shopping cart system to place an order of a "billable" slave site.
- **Title:** This is template title that is displayed to the front-end user that created the slave site.
- **Description:** Free text that allows you to describe the template. This text is displayed to the "front-end" when a user selects the template.
- **List of domain:** This field is mandatory when you want to show this template into the front-end.
  - Define the rule to create the new domain name here.
  - You can use multiple keywords in the definition of a domain. See next section for an exhaustive list of keywords available.





You could define rules like:

- http://{site\_url}/u{user\_id}{site\_prefix}
- http://{site\_url}/{site\_alias}

#### Where:

- {site\_url} : define the current URL of the website
- {user\_id} : define the Joomla user identifier
- {site\_prefix} : Is a prefix introduced by the front-end user when it creates a slave site.
- {site\_alias} : Is an alias introduced by the front-end user when it creates a slave site.
- **Redirect to the first domain:** When describing several domain names, this parameter allows automatically redirect any domains to the first one of the list. This avoid that duplicated content is identified by the Search Engine and potentially have penalties for the ranking.
- **Ignore Master Index:** This is a special flag that allow ignoring the generation of the master index used by Jms Multi Sites to retrieve the site ID based on a URL. This flag can be enabled in case where a specific development is done to implement a hard-coded inside the "multisites\_userexit.php" file. The hard-coded rule is recommended when a very large number of slave sites is expected (more than 1,000 slaves). In this case, the hard-coded rule can be faster than loading a file with all the slave site definition to take the decision.

#### Geo-Localisation

- List of continents: This information is provided by the "quova" real time processing..
  - In the case of MaxMind, the continents are derived from the country code and use the following table. <a href="http://www.maxmind.com/app/country\_continent">http://www.maxmind.com/app/country\_continent</a>
- **List of countries:** Select the countries for which this website must be only identified.
- **List of regions, State:** depending on the Geo-localisation provider, the state is not defined the same way. Some providers use 2 letters and the other one use full name.
- **List of states:** depending on the Geo-localisation provider, the state is not defined the same way. Some providers use 2 letters and the other one use full name.
- **List of cities:** depending on the Geo-localisation provider, the cities is not defined the same way.
- **List of Zip codes:** You can provide a list of zip code when the Geo-Localisation providers give this information.
- **Longitude and Latitude:** You can provide a range "from" "to" value to identify a location.
- **Metro code:** USA and Canada metro station. The list of code can be found at <a href="http://code.google.com/apis/adwords/docs/appendix/metrocodes.html">http://code.google.com/apis/adwords/docs/appendix/metrocodes.html</a>
- **Area code:** See the Quova or MaxMind website for more info on the area code.





- Ignore when undefined: Is a specific decision algorithm that make a parameter mandatory or facultative when the Geo-Localisation provider does not give the information.
- Ignore when pattern is present: This special feature allows verifying if a specific parameter is present in the URL to ignore the rules. It can be very helpful in case where several identical domains are defined for different location. For example, let suppose that a user connect on www.jms2win.com website from a location in france and that a rule is defined to redirect to www.jms2win.fr website in French but this customer would like to see the www.jms2win.com. You could provide a link in www.jms2win.fr that redirect on the www.jms2win.com with an additional parameter to request ignoring the redirection.
- Ignore cookie timeout: To maintain the "ignore" rule, a cookie is written for duration in second. 86400 = 24 hours
- **Sort ordering:** When several rules are defined for a same domain, it is important to decide in which order the rule must be executed. This parameter allows deciding the order.

#### Browser features

- User agent: when a server receives a request, the "user agent" contains a string that allows identifying the kind of browser. We provide a list of most common user agent pattern that can be found. This list can be update in the administrator\components\com\_multisites\data\browser\_types.cfg.php
- Accepted language: Allows defining a list of language code present in the request. Wildcard can be used and is case sensitive. The syntax used in the protocol is "en", "en-gb", "en-us", ... you can enter here something like "en\*" to accept any values.
- **Ignore when pattern is present:** This special feature allows verifying if a specific parameter is present in the URL to ignore the rules. It can be very helpful in case where several identical domains are defined for different "user agent" or "language".
- Ignore cookie timeout: To maintain the "ignore" rule, a cookie is written for duration in second. 86400 = 24 hours

## Replication of tables from an existing website

- This field is mandatory when you want to show this Template site: template into the front-end.
  - It is used to select an existing slave site that will be replicated when creating a new slave site.
- **To site ID:** This field is mandatory when you want to show this template into the front-end.
  - It is used to define the rule for the creation of the slave site identifier. You could use for example a rule such as:
  - u{user\_id}{site\_prefix}





- **Share the whole site:** Is a flag that is equivalent to use exactly the same DB with same table prefix than the "template site" selected.
- **Admin user:** This field is mandatory when you want to show this template into the front-end.

It allows you to select the "admin user" that will be available to the front-end user and for which the administrator email and password can be setup during the slave sites creation.

You could use, for example, a rule such as:

Optional parameters added in JMS 1.2.x to define a new DB rule:

- the **new DB server name:** when present this allows you to define the default new DB server name to use when creating a new slave site.
- the **new DB DB name:** when present, this allows you to define the default new DB name to use when creating a slave site.
- the **new DB user:** when present, this allows you to define the default new MySQL DB user to the DB that will be used by the slave sites.
- the **new DB password:** when present, this allows you to define the rule to grant the user with a specific password..
- **New DB prefix:** This field is mandatory when you want to show this template into the front-end.

It is used to define the rule for the creation of the new database table prefix. You could use, for example, a rule such as:

- u{user\_id}{site\_prefix}
- **New site name:** When creating website from the front-end, sometimes it is decided to generate the site name automatically. This field allow such automatic customization.
- **New default language:** Allow changing dynamically the default language used in the front-end by joomla. This allow for example to share a whole site but create variant depending on the browser language or user geolocalisation.
- **New default template:** Can be useful when using specific template for mobile device.
- **New default menu:** Can be useful when using specific website for mobile device or that you share a same whole site for different languages, different geo-localisation.

## Specific slave site folders

- **Deployment folder:** This field is only available for "non Windows" systems probably Unix platform. When present, it allows to specify where the slave site will be deployed. In this case, it is possible to define Symbolic Links or other rules in the "Files and Folders" panel as described in another section.
- **Path to media folder:** This field can be used when you want to use a specific media folder. When specified, it duplicates the media folder associated with the "template website," and also updates the new database with the new path.

The new slave site Joomla / Global Configuration / Server panel is changed with the parameter with this new media folder path





- **Path to image folder:** This field can be used when you want to use a specific image folder. When specified, it duplicate the image folder associated to the "template website" and also updates the new database with the new path.
  - The new slave site Joomla / Global Configuration / Server panel is changed with the parameter with this new image folder path
- **Themes folder:** This field can be used when you want to have a specific themes folder for the slave sites.

In case of Windows platform, this duplicates the "template site" themes folder.

On non Windows – probably Unix, this creates Symbolic Links on the "template site" themes folder. We have chosen to create "Symbolic Links" instead of duplication to simplify the maintenance and allow reduce the number of place where template must be updated. This can help some companies that use JMS to propose "themes" to their customers. They could have only one place where to maintain the "themes".

## **New FTP Parameters**

- the **new FTP enable:** This allows using the Joomla FTP layer to create the slave site. When enabled, it gives access to the FTP Host, port, user, password, root path.
- the **new FTP host:** This is the IP or domain name of the FTP server.
- the **new FTP port:** This is the port number of the FTP server.
- the **new FTP user:** This is FTP user for the login.
- the **new FTP password:** This is FTP password for the login.
- the **new FTP root path:** This is the path that must be used by the Joomla FTP layer to create the slave site. Becarefull that this path is relative to the current website root path. For example if you current "master" has an FTP root path that is "/public\_html" and that you want to deploy something in a directory like "/domains" that is beside the "/public\_html", the value that must be entered in the new FTP root is "/public\_html/../domains"

## 3.3.1. Keywords available to create generic slave sites

Keyword are text between parenthesis.

- **{home}, {home\_dir} :** This is the value defined in the "settings". Is helpful when using the distributed default rules to customize them depending on your hosting environment.
- {public}, {public\_dir}: This is the value defined in the "settings". Allow creating generic rules more independent of the hosting environment.
- {user\_login}: This is the current joomla user login
- **{user\_name}**: This is the full name of the current joomla user
- {user\_id}: define the Joomla user identifier
- {user\_name}: This is the full name of the current joomla user
- {user\_login}: This is the current joomla user login
- {user email}: This is the current logged joomla user email address





- {user\_email\_left}: This is the current logged joomla user email left part (before the at @)
- {user\_email\_left\_alnum} : Same as {user\_email\_left} and remove all special character. Just keep the letter, digits and the '-' character.
- {user\_email\_right}: This is the domain name of the logged joomla user email address. This is the right part after the at @ character.
- {user\_email\_right-1} to {user\_email\_right-n}: This extract the part present in the domain name from right to left using the dot (.) as separator.
- {user\_psw}: This is the current logged joomla user password
- {site id}: This is the site identifier.
- { **site\_id\_left**} : This is the site\_id left part (before the at @)
- {site\_id\_left\_alnum}: Same as {site\_id\_left} and remove all special character. Just keep the letter, digits and the '-' character.
- { **site\_id\_right**}: This is the right part of the site\_id after the at @ character.
- {site\_id-1} to {site\_id-n}: Site identifier part exploded on dot(.) in reverse order. For example, the site id 'www.jms2win.com' can give {site\_id-1} = 'com', {site\_id-2} = 'jms2win' and {site\_id-3} = 'www'.
- {site\_id\_letters} : Site identifier where letters are converted in a directory path. ie: 'site' is converted into 's/i/t/e'
- {site\_alias}: Is an alias introduced by the front-end user when they create a slave site.
- {master}: Absolute path where is installed the master website is located. This information is computed based on the "multisites" directory specified in the "settings" menu.
- {**root**} : Absolute path where is installed the current website
- {multisites}: Absolute path to the multisites directory.

Equivalent to {root}/multisites

- {**site dir**}: Absolute path of the site directory.
  - Equivalent to {multisites}/{site id}
- {**rel\_site\_dir**}: Relative path of the site directory.
  - Equivalent to multisites/{site id}
- {site\_domain}: Field domain fo the site
- {site\_url} : define the current URL of the website
- {site\_prefix}: Is a prefix introduced by the front-end user when they create a slave site.
- {rnd\_psw\_6} to {rnd\_psw\_10}: Random password on a length of 6 to 10 characters
- {rnd\_psw}: Random password on a length of 8 characters
- {rnd\_alnum\_6} to {rnd\_alnum\_10}: Random string that only contain letters and digits on a length of 6 to 10 characters. The letters can be Uppercase or in lowercase.
- {**rnd\_alnum**}: Random alpha numeric string with a length of 8 characters
- {rnd\_word\_6} to {rnd\_word\_10} : Random word contain uppercase or lowercase letters on a length of 6 to 10 characters.
- {rnd\_word}: Random word with a length of 8 characters
- {rnd\_prefix\_6} to {rnd\_prefix\_10}: Random alphanumeric string in lowercase only and starting with a letter and containing only lowercase letters on a length of 6 to 10 characters.





- {rnd\_word} : Random word with a length of 8 characters
- {autoinc+offset}: Auto-increment number starting at 1 to which an offset number can be added. ie. {autoinc+100} will start at 101.
- {autoinc}: Auto-increment number that is starting at number 1
- {reset}: Force to reset the field value (clear it). Is generally used with FTP layer parameters

#### 3.3.2. New Folder and files

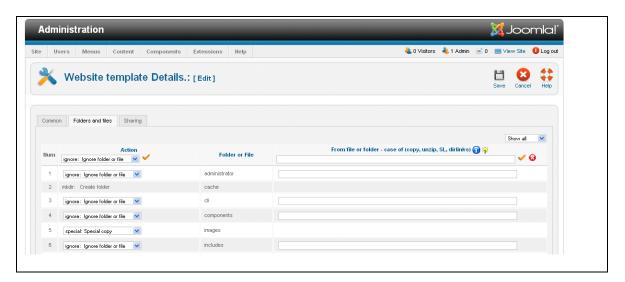
The "folder and files" panel is used to customise the new slave site root directory structure.

When working on Unix platform, this is used to create a replication of the master website using "Symbolic Links". In this case (Unix), this allows a domain to be mapped to another directory than the master website. This can be helpful for plesk or cpanel users, or any other Unix tools that propose by default a specific directory for each domain.

With this tool, it is also possible to decide to copy or create a directory from a tar.gz file.

Some files and folders cannot be customized because they have a specific processing. This concern:

- the "index.php" and "index2.php" that can not be a link because this may crash website. We create a basic PHP include of the original file present in the master directory for those files.
- The cache folder, the log folder, the tmp folder, the media folder, the image folder, and the themes folder.



With the fields present in the header, it is possible to propagate the action to all the lines.

Most of the actions can have a specific value for the computation. Relative path can be entered (../)



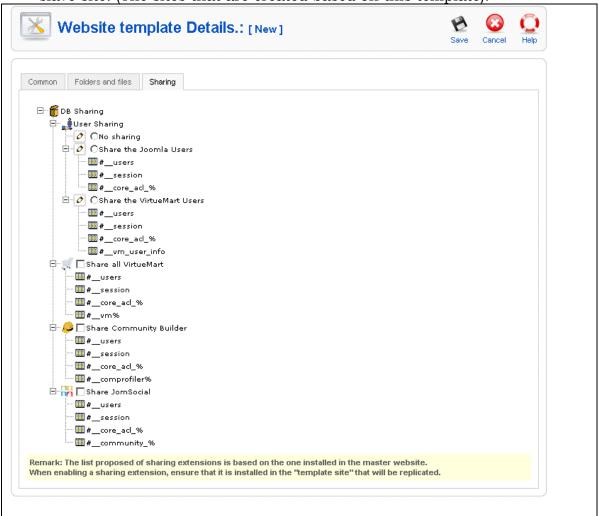


## 3.3.3. Sharing

The "Sharing" panel is used when you want to share the users or some extensions at the website creation.

Becarefull that once a website is created, it is no more possible to change the option.

This panel is used when a new extension must be installed in a "children" slave site. (The sites that are created based on this template).



You can select select several extension to share.

Inside each chose, JMS provide the list of MySQL tables that will be shared. It use the Joomla notation:

- "#\_\_" means in Joomla the table prefix
- "%" is the MySQL wildcard that mean any character or words.

The list of extension that may be share is limited.

The sharing definition is present in the "check for update" distribution.





Therefore if you want to share an extension that is not currently present, send us a email with your extension proposal. We will analyze it and perhaps we will add your sharing proposal into a new "check for update".

When submitting a sharing proposal, please provide us the URL where we can download the extension for free or join us the extension in attachement.

## 3.4. Tools

The tools menu is provided to help the user supervise the installation of the extensions into the different websites.

This is a tool that compare the extension installed between the master website, the template website and the current website.

It also allows perform some install/sharing and un-install operation on the slave sites.

This tool is divided into two parts;

- A hierarchical tree that present the website dependencies (based on the websites template usage)
- A description of current selected websites.

When you select a website, JMS perform plenty of queries in the different DB (master, parent website template, selected website) to retreive the whole configurations and perform a comparison between the websites. It is designed to help the user install/share or un-install extensions.

The description of a website is divided into several panel:

- Detail panel provide the description of the DB connection of the select websites;
- Components, modules and plugins list all the extensions present in the master website and compare them with the one present in the "template" website and with the selected websites.
  - Only the "no core" Joomla extension is listed as the core joomla extension cannot be un-installed.
- Templates and Languages are available for Joomla 2.5 (and 3.x) that avoid logging into the back-end of the slave site to discover them.
  - Only the "no core" Joomla extension are listed as the core joomla extension can not be un-installed.
- Table panel provide information concerning the MySQL tables present. It also compare the table present in the master website, the template website and the selected websites.

In Joomla when you install an extension, in addition to install the PHP code of this extension, there is also creation of DB tables and finally storing information relative to this extension in a kind of "table of content". Unfortunattely, no where there is a list of the MySQL tables that are associated to a specific extension. This is the responsibility of each author of an extension to create the MySQL tables.





To propose the service to install/share extension in the "tools" menu, JMS contain a description of a limited number of extensions. The description of the extension is possible and can be distributed with the "check for update".

To display the installation/sharing rules, you can put the cursor over the components/modules/plugins name. This will display a tool tips with the description.

To know if JMS contain definition of the extension and perhaps also sharing definitions, JMS use some icon convensions:

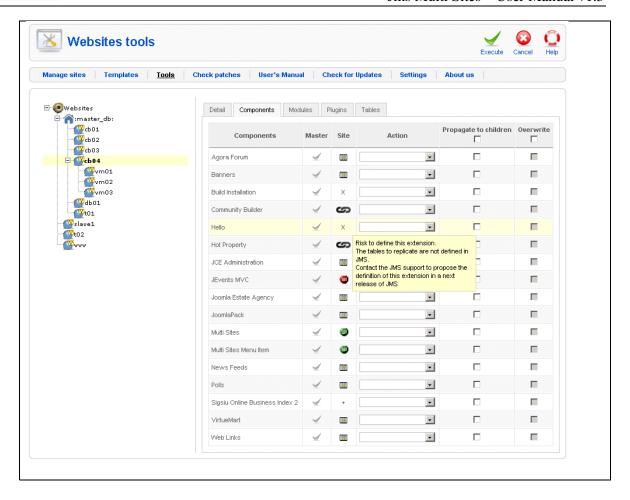
- mean that you can install the extension and that JMS contain the list of table to use for the installation.
- means that you can install or share the extension. JMS contain both descriptions.
- Means that it is **NOT recommended to install this extension with this tool**. JMS does NOT contain the description of this extension. Submit a require to the support to propose adding the extension in a next "check for update" distribution.

It is preferable to re-install the extension in the slave site or in case where the extension is installed in the template (parent) and not in the slave site, to open/save the slave site in the "manager site" to synchronize the install of ALL the extensions.

- Mean that the extension is installed
- Means that only the "toc" of the extension is present and that no description is present in JMS
- Means that only the "toc" of the extension is present and is perfectly described in JMS







## 3.5. Maintenance

With the introduction of Joomla 1.6, joomla does not provide anymore legacy mode and also change the DB datamodel structure very frequently and also inside a same release.

Joomla decided to not respect the commonly recognized "semantic versioning notation" untill Joomla 3.4. (<a href="http://semver.org/spec/v2.0.0.html">http://semver.org/spec/v2.0.0.html</a>)

Therefore, at the difference with Joomla 1.5, now the DB structure can change at any time and all the websites must use the same DB structure for a given joomla version.

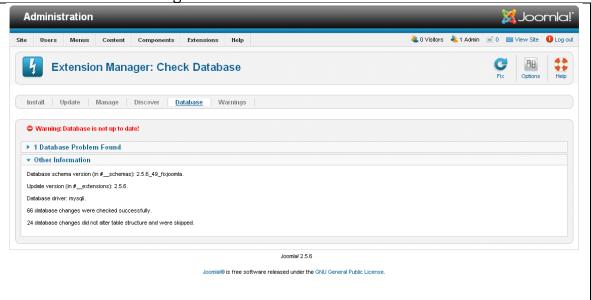
The chapter 8 describe more in detail the difference between update and upgrade.

- An update generally corresponds to bug fixes and does not modify the database structure.
- An upgrade generally modifies the database structure or add new table into the DB to allow the new extension working properly. This may also add or remove records in the existing tables.

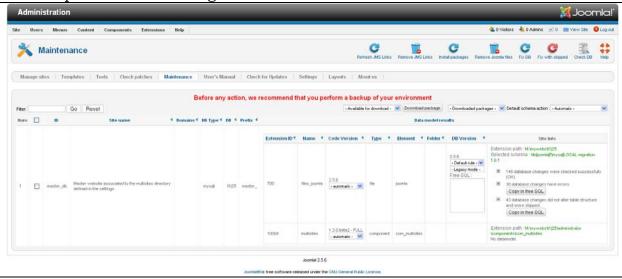




In joomla 2.5 (and 3.x), a new "extension manager" / database / fix functionality is introduced to help fixing the DB modification but only check a limited number of things and is not reliable.



The JMS maintenance menu is inspired from this new feature and provides a more sophisticated checking and fix.



The functionalities available are:

- **Check the DB** data model structure in function of specific SQL scripts. The scripts can be a new "joomla.sql" or migration script or any other specific SQL scripts that would be provided.
  - It is also possible to check a DB structure on different joomla version
- **Fix and Fix with skipped functionalities** allow executing the SQL scripts provided with (or without) the skipped statement. The "maintenance" menu contain a MySQL parser able to recognize most of the statement and





perform verification inside the DB to determine if a statement must be executed or not (or is not understood - skipped).

• **Remove Joomla file** allows cleanup all the joomla files and folders with the objective to re-install another joomla version. The idea is to keep all the components, modules, plugins, templates ... files that are not present in a standard joomla package. In case of a migration, this allow re-using all the current files installed without copying them into another directory structure.

#### Remark:

There is no check on which "extension path" is removed. So be careful to not removing yourself.

- **Install package** allows unzip (extract) a package into the extension path directory. We provide a list of available package that correspond to the official joomla website for a full package. You can also download the package manually and store the result into the directory: "administrator\components\com\_multisites\download"
- **Remove JMS Links** allows removing all the symbolic links but also specific files that would contain a link that you would like rebuild. This might be useful when moving an installation on an other server or directory.
- **Refresh JMS Links** allows rebuilding the symbolic links.

The list of information are divided in several parts and the actions are executed via "synchronious" Ajax to allow executing a large number of actions that may require several minutes of processing

You have a list of websites that start by:

- ":this\_site:" It is present when the current website is not the master website. In this case, it provides the possibility to check the DB on yourself. It is generally displayed when the "settings" multisites directory is connected on another joomla.
- ":master\_db:" displays the master website information.
- "slave sites" is the list of slave sites defined in the master website.

For each site, a list of extension is provided and for each one, we try to identify the version of the application and the version of the DB structure.

Technically, this is list is resulting of the content of the joomla 2.5 (or 3.x) "#\_schema" table but also resulting of all the components installed under joomla 1.5 or 2.5 or 3.x.

When an information is not provided via the joomla 2.5 (or 3.x) "#\_\_schema", an automatic detection is performed to discover the extension ID, extension name, version of the component declared in its manifest XML file and the DB structure version when it is available.





To know which SQL script are available for each extensions, either hard-coded scripts are declared (this concern the joomla core) but also scan of the extension manifest file to search for install queries or install sql scripts. When the manifest does not contain any SQL script declaration a scan in the extension directory is used to discover all the ".sql" files.

Site identification is composed of:

- Site ID
- Site name: The title present in the joomla "global configuration" (configuration.php)
- Domains: The domain names defined in Jms Multi Sites.
- DB Type: show the database driver type (mysql, mysqli, sqlazure, sqlsrv, ...)
   mysql and mysqli are considered as synonym and use the same SOL
  - mysql and mysqli are considered as synonym and use the same SQL scripts
- DB name:
- DB prefix:

For each sites, a list of extension is provided:

- **Extension ID**: Number of the extension
- Name: Name of the extension
- **Code version**: This is the version number present in the manifest XML file. Combine with the "Install Package" button, a combo box provide the list of available "downloaded" packages.



- **Type**: This is the type of extension. In joomla 2.5/3.x several types are available such as "file, libraries, components, modules, plugins, ..."
- Element: this is the "technical name" of the extension.
- **Folder**: this is generally used by the plugins to provide the variant of the plugins.
- **DB version**: This is either the information collected from the joomla 2.5 "#\_schema" or automatically computed based on manifest XML file or based on the DB structure in case of joomla itself. The algorithm is able to detect Joomla 1.5, 1.6, 2.5 and 3.x structures. Starting with Joomla 1.7 the information is considered as present in the "#\_schema" table.

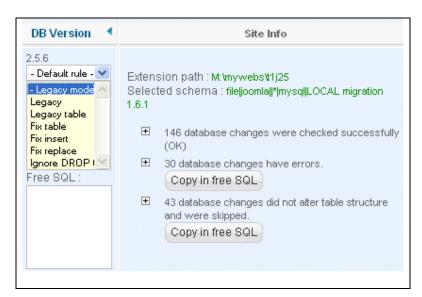






Different actions are possible on the DB structure:

- It is possible to select a specific SQL scripts to apply on the extension;
- Provide a specific algorithm to apply on each SQL scripts before execution
- Execute addition free SQL statement to fix some issues. The free SQL statement can be collected from the "errors" or "skipped" statement reported during a check of DB or after an fix operation.



In addition to execute SQL scripts, it is possible to perform pre-processing on the SQL script to allow filtering or change the behaviour of the SQL scripts. This is the "legacy mode".

- Site Info: This is the result of the "synchronous" AJAX processing. In the case of a "check DB" or "Fix …", the information returned are:
  - "extension path" to verify where is located the files (php code) on the disk
  - "Selected schema" that allow verifying the rules applied





- "Legacy mode" that allow verifying the pre-processing algorithm selected on each statement
- Statement checked successfully
- Statement that return an error
- Statement that are "skipped"

For each SQL statement, the path to the file where the SQL statement comes from is provided to help fixing potential bugs.

## SQL Scripts "rules" selection:

• "Default rule" use the action defined in the "top right" action. This can be automatic or any other rules defined here below.

Automatic correspond to the automatic algorithm to detect the current DB structure and that correspond to the first rule available for the given version detected.

- Free SQL only. When a "free SQL" field is provided it is always executed after the rule selected. When "free SQL only" is selected, the "automatic algorithm" is disabled.
- Ignore mean that no rules must be applied on this extension.
- List of SQL scripts identified by the key (type, element, folder, driver, label)
- "xml:" Identifies that SQL scripts were present in the manifest XML file
- "sqlfile:" mean that SQL files are described in the manifest XML file.
- "discover:" means that SQL files were found in the component directory. This exclude all files containing the word "uninstall".

#### Remark:

The scripts available are defined in the directory.

"administrator\components\com\_multisites\libraries\cms\schema\sql\upda tes"

In addition, an extension MySQL language is created to add some special statement to perform pre-processing tasks. The additional statements are:

- "LEGACY TABLE"
- "FIX TABLE"
- "FIX INSERT INTO"
- "FIX\_REPLACE INTO"

#### Legacy mode algorithms:

To allow providing a kind of legacy mode on the DB, it is possible to add limitation in the execution of the SQL script or perform addition verification. For example, by default, when a table already exists, it is not verified. The "fix table" mode allow verifying its structure and generate all the "add columns, index or modify columns, index" to adjust the table structure.

Another example is the "legacy mode" that avoid deleting any columns or indexes but just add new tables, new columns or just increase the size of existing columns (not reduce the size).





In addition, the "legacy" can be used to check an existing table structure and create automatically the "create table", "alter table add columns", ... to modify an existing table.

Multiple actions are possible with the legacy mode.

- "Legacy": This action converts all the "create table" into "legacy table" and also enable the flag "ignore drop columns".
- "Legacy table": This action converts all the "create table" into "legacy table". The "legacy table" algorithm consists in checking if a table already exists and when it exists to check its table structure.
  - o If the table does not exists, create it
  - o If the table exists verify its structure and
    - Generate "alter table ADD Columns"
    - Generate "alter table modify columns" with a field size greater than current size
    - Generate "alter table add index"
    - Generate "alter table modify index"
- "Fix table": This action is similar to the "legacy table" except that "drop columns", "drop index" are possible and that "modify columns" can be applied on any columns size.
- "Fix insert": This action basically consists in converting all the "insert into" into "replace into" to avoid adding duplicated records. In addition, when an "insert into" SQL statement is provided with plenty of data in a single insert, this "fix insert" try converting the multi-values insert into a "single" insert into statement to allow ignoring all the duplicated insert. In other words, 1 big muli-value is converted in several insert for each individual records.
- "Fix replace": Allow converting a multi-records "replace into" into multiple replace into with a single record for each "replace into". So that, some of the values can be considers as "ok" when other generate an error and must be executed. This avoids executing all the records when just few of them must be executed.
- "Ignore DROP Columns": Discard (ignore) any "alter table drop", "alter table drop columns".

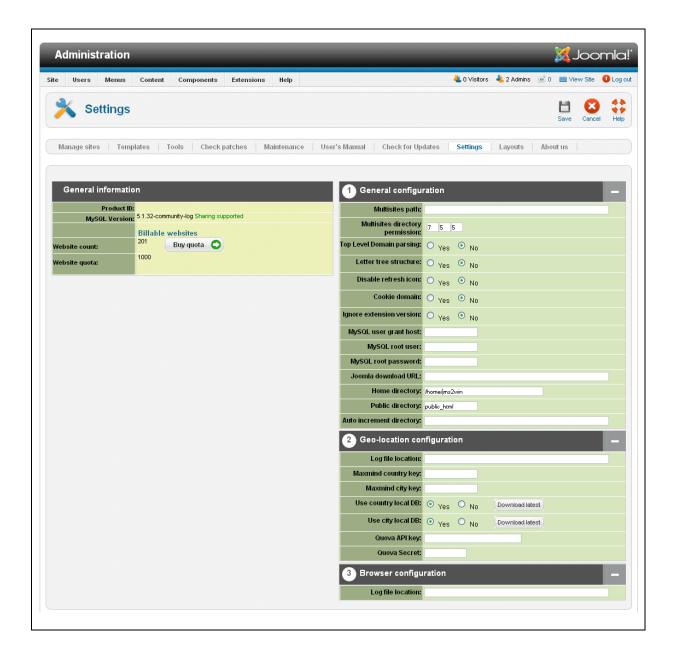
# 3.6. Settings

The settings menu has 2 functionalities.

- 1) It displays general information concerning the environment and also provide the possibility to buy website quota for the creation of front-end website that require "billable website" functionality
- 2) Configure the component to allow describing where is located the "multisites data directory", the features concerning the geolocalisation and browsers. Such configuration was previously available with a manual configuration in "multisites.cfg.php" file and now a user interface is provided to customize this file.







#### 3.6.1. General Information

When you want to use the functionality of "billable" front-end websites, it is required to buy quota on <a href="https://www.jms2win.com">www.jms2win.com</a>.

The interface that you can use to buy quota is present in Settings menu.

This menu shows you the current number of "billable" front-end websites that have been created and your current website quota.

The website quota you have already purchased and that is attached to your "jms2win" login. Therefore, you can share your website quota between multiple JMS master installation.





When you click on "Buy quota", you are redirected on <a href="www.jms2win.com">www.jms2win.com</a> website and it will show you the different volume package available based on your current quota.

When you have purchased quota, this will give you access to a special menu in www.jms2win.com with your website quota history.

In addition to the website quota, Jms Multi Sites display some usefull information such as:

- Unix Symbolic Links : allowed / forbidden; This is not display on Windows platform.
- The MySQL version that condition if the Sharing functionality is available or not. When using MySQL < 5.0, the sharing functionality is NOT available.

See also the tutorial video 14 that show how to create "billable website" from the front-end.

http://www.jms2win.com/en/tutorial#jms12x-14

## 3.6.2. Configuration

The configuration correspond to the parameters that are defined in the "multisites.cfg.php" file and "multisites\_path.cfg.php" files.

The configuration is divided in different parts depending on the variant of the product:

- General (or common) configuration
- Geo-localisation configuration
- Browser feature configuration

A detailed description of the parameters is already present in section 3.2.2.2

## 3.7. User's manual

This user's manual is available online.

It gives a direct access to this document.

A special feature is implemented to always give access to the latest version of this manual that matches your Jms Multi Sites version.

The help screens are also available online.

# 3.8. Check for Update

"Check for Update" is a functionality to allows you to download update automatically into the patches definitions.

This allows us to add patches definition for the extensions that could require a modification to be compatible with Jms Multi Sites.

This "check for update" does not upgrade the Jms Multi Sites kernel. Only the list of patches is updated.



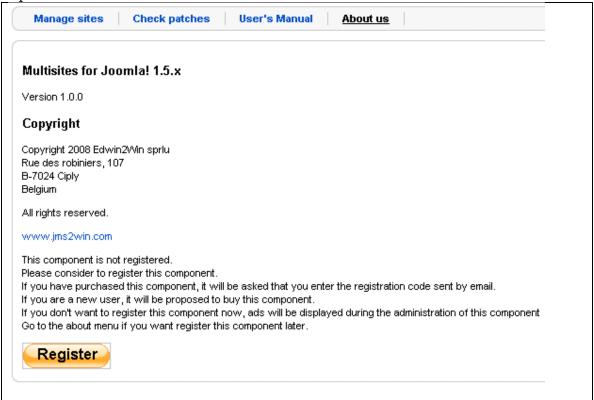


If a user identifies a problem with a specific extension he can report it to us and if we can provide a solution with a patch, this is the channel we will use to distribute the patch to the user community.

## 3.9. About us and registration

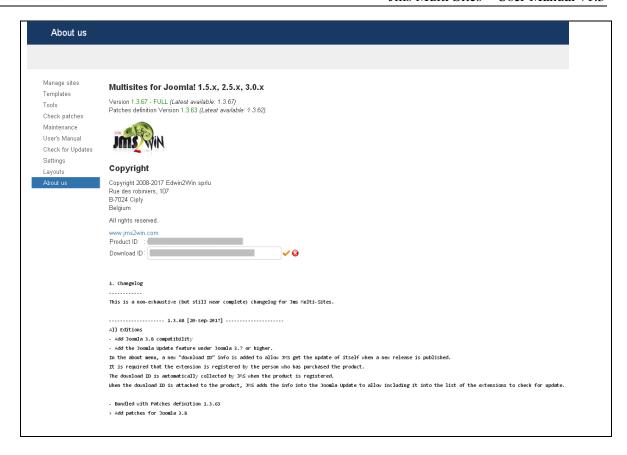
The about menu displays the version of the extension and possibly shows you a registration button when you have not yet registered the component.

The registration is a mechanism that we use to determine if the user has paid a fee for the download of this product and if he can have access "check for update".









When you register the product with user who purchased the product then JMS is able to retrieve the order of the product and its download ID. This information are used to allow add JMS to the list of the extension that can be updated via the extension / update menu.

The "Download ID" can also be provided manually.

This is the download ID that is present in the email sent when the order is confirmed or when the "Get Latest Version" menu is used into jms2win.com to get a new download ID.

If after a rebuild in the extension manager / update site the "multi site" extension disappear from the list of extensions then you just have to come back into this "about us" menu to let JMS declare itself again into the joomla update.





# 4. Front-end dynamic slave sites creation

Creating a slave site from the front-end is a functionality that works with "website template". With the "website template" you define the rules for the creation of a new website site.

You can either create "free" or "billable" slave site from the front-end.

First, we describe the parameter that can be entered by a final user.

Next, we describe the parameters that can be defined in the Joomla menu to specify additional "billable" information.

Finally, we have a section that gives you some general information to help you in the communication between JMS and your specific eShop. We have a plugin "MultiSites for VirtueMart" that propose a complete integration with very popular VirtueMart. This plugin allows you to automatically add an item into the VM shopping cart, redirect the user to the check-out, process the VM order to update the slave site status according the VM order status associate to the slave site.

The front-end can only define a limited number of parameters. Those parameters can be used by the "website template" in the definition of the rules:

- Select a "website **template**". The template defines the rules that must be used to create the new slave site.
- A **site prefix**: This is a field that can be used as a keyword in the "website template". It can be used for example in the rule that defines the site ID. In that sample below, use have used the template site ID rule = "u{user\_id}{site\_prefix}".

{user\_id} is a keyword that represent the Joomla user ID.

{site\_prefix} is a keyword that represents the value introduced by the user in this field.

- An **alias**: This is a word that could be used in the creation of a domain name. In our example, we have used this field in the rule that defines the domain.

http://{site\_url}/u{user\_id}{site\_prefix}

http://{site\_url}/{site\_alias}

{site\_url} is the keyword that return the value of the current site URL

{site\_alias} is the keyword that corresponds to the field entered by the user.

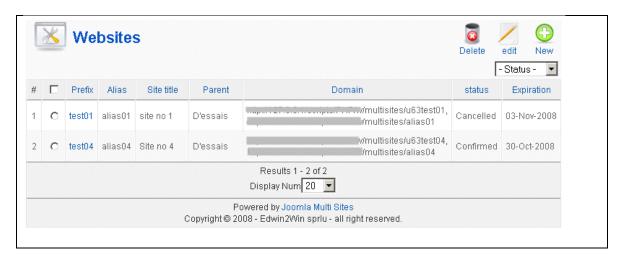
- **Site title**: This is the title of the slave site that will be created.
- **Administrator login**: is the field that display the login name of the administrator. This is the name defined in the "website template".
- **Administrator email**: This is the new email address that must be associated to the administrator user selected in the template.
- **Administrator password**: This is the new password that the user wants to associate to the administrator user defined in the template.

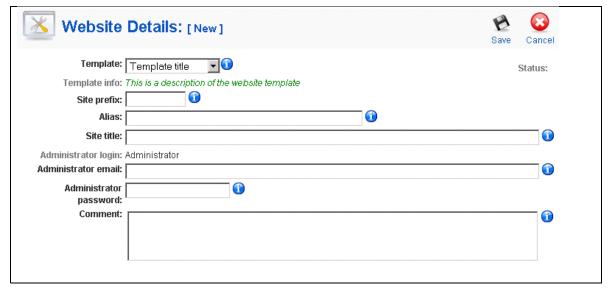




- **Comment**: This is a free text that the user can add a few things he wants to remember. This field is not displayed anywhere. This is just a field to write some notes.
- **Status**: The status is a field computed during the slave site creation that is a result of the processing. When the creation starts, the website is set in a "Pending" status, and when completed, in a "Confirmed" status.
  - The status can also be synchronized with a eShop application such as "VirtueMart". It can be used by "billable" front-end websites.
- **Expiration date**: This is a field computed during the creation of the slave site and that depends on the validity duration defined in the "website template". When it is specified, this means that JMS will recognize the slave site until this date. After this period, this is the master website that will be displayed.

The front-end user has the possibility to edit its slave site and request to pay (buy button) for additional service. In this case, the payment procedure will increment the expiration of the "validity duration".





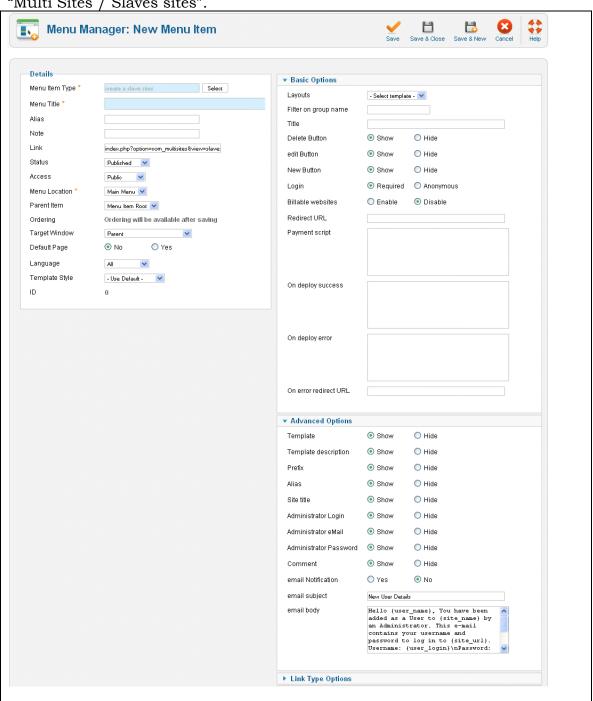


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## 4.1. Front-end menu definition

To give access to the dynamic slave site creation, you can use the menu type "Multi Sites / Slaves sites".



When you supply a front-end slave site creation, you must define the criteria that are used to display the templates available.





- **Layouts**: This is a combo box that allows you selecting among different look for the front-end. See the "layouts" menu in a next section that show how to install new layout.
- **Filter on group name**: This is a group name present in the "website templates". This limit the list of templates proposed to the user with the group name you have entered.
- **Title:** This field allows you to change the title displayed of the list of slave sites.
  - This allows you to avoid having to change the language file to update the title.
- **Delete Button:** It is possible to hide the "delete" button to avoid giving the user the possibility to delete the slave site he has created.
- **Edit Button:** It is possible to hide the "edit" button to avoid giving the user the possibility to edit the slave site he has created.
- **New Button:** It is possible to hide the "new" button to avoid giving the user the possibility to create new slave site when you display the list of slave sites.
- **Login:** Allow deciding if only registered user or any "anonymous" users can have access to the websites creation or list of slave sites.
- **Billable website**: This is a flag that indicated if you propose a "billable slave site" service or free slave site creation.
  - When it is enabled, it requires that you have available quota. See settings menu to buy website quota.
  - When enabled, this also enable the usage of the "Jms Multi Sites" plugin and different additional PHP scripts that can be executed during the slave site creation.
  - When enable, this also hides the "powered by Jms Multi Sites" message that appears in the bottom of the front-end list of websites.
- **Redirect URL:** allow to redirect a user to a specific page when the website creation is done with success. See also the "On error redirect URL" that provide the URL in case of error.
- **Payment script:** This field allows you to introduce a valid PHP code that must be executed to proceed with payment.

Below, we give a sample of script that we have used to test the integration in VirtueMart.

It adds an item in the shopping cart using the "sku" product reference defined in the "website template".

```
<?php
$payment_ref = uniqid(rand());
if ( $renew) {
    // Put here the code to renew a website
}
else {
    // Put here the code when a new website is created
}
?>
```

- **Deploy on success:** This is a script that is executed when the site deployment is success.

It can be used for example to redirect the user to the checkout or to add specific things such as update external files or environment that must be





aligned with the new slave site. By example, this could be used to automatically update the apache 'httpd.conf' file.

The sample below is given for VirtueMart and shows how to redirect the processing to the VirtueMart check out.

```
<?php
global $mainframe;
// Redirect to the check out
$root_url = JURI::base();
$mainframe->redirect(
"$root_url/index.php?page=checkout.index&ssl_redirect=l&option=com_virtuemart&Itemid=$Itemid");
?>
```

When VirtueMart is present, we have included a patch that allows you to add a plugin on each modification of an order status.

The "Jms Multi Sites for VirtueMart" plugin implements the slave site status update based on VirtueMart order status update.

For example when a payment notification is sent by PayPal to VirtueMart, this calls a VM order status update that is intercept by the plugin. With this plugin, the VirtueMart status is used to update the JMS slave site status.

**Deploy on error:** This is a script that is executed when the site deployment failed.

### **Avanced parameters**

The advanced parameters mainly specify which parameters must be show or hide and also customizing the email that can be sent when a new password is generated automatically and that it must be sent to the user.

- The parameters with Show/hide are:
  - Template

It can be hide when there is only one template available. Otherwise this field should be set to "show"

- Template description
- Prefix
- Alias
- Site Title
- *Administrator Login*

It can be hide when another rule like re-use the current user login is used to setup the administrator login.

- Administrator email
- Administrator password
- Comment
- The parameters relatives to the email notifications are:
  - Email notification

It can be used to force the send of an email to the administrator of the website created.

- Email subject
- Email body

A limited number of keywords are available to customize the email.





# 4.2. How to define script for additional specific processing

The script can be used for different purposes and is available with "billable websites".

The scripts can be used to perform additional processes such as specific database updates required by some specific extensions, setup additional files or communicate with other components like VirtueMart.

Here we illustrate the case where you want to create you own payment module.

In this case, you can either develop a plugin such as "Jms Multi Sites for VirtueMart" plugin or use additional scripts.

The principal is to:

- Create a unique payment reference that will be used to identify a payment transaction

This transaction number is created using the "payment script".

This script is called in a "sanity routine" to make all variables hidden.

This routine must either use

- return xxxx;
- or \$payment\_ref = xxx;

where xxx is the payment reference that must be attached to the website. At this moment, you have all the information to add an item into the shopping cart.

The information available and that can be used for a shopping cart are:

- ItemID: This is the Joomla Item ID that is used for the breadcrumb:
- Site\_id: that is the name of the site that can be used to update the status or store information such as the expiration or validity duration or any other information that must be attached to the website site identifier.
- Sku: This is the SKU information that is defined in the "website template" selected by the user
- Validity: This is a number that contain the validity value introduced in the "website template";
- Validity\_unit: This variable can contain the values [days, months, years]
- Renew: This is a flag that is set to true when the user clicks on the "buy" button to renew its payment.
- When the website is deployed, it is set in "Pending" status until the order is paid. At this moment, the "on deploy success" script can be called to give the opportunity to redirect the user to the "check out" section.
- When an error occurs during the website creation, this script gives the opportunity to undo or cancel some operations
- When the payment is performed with your favorite eShop or any other system, you have to notify JMS that the slave site status is confirmed (or cancelled).





We have developed a routine 'updateStatus" that is documented in the next section and that can be used from anywhere to update a slave site status.

### Remark:

This payment module description is given as a sample.

Depending on the eShop, specific development is required to interface JMS with this eShop.

### 4.2.1. Multisites Utils functions

# 4.2.1.1.function updateSiteInfo( \$site\_id, \$values)

Generic routine that allow to update some JMS website values using a site ID.

This update the content of the file "config\_multisites.php" file present in the site ID.

This routine starts by reading the current configuration values. Next it updates the DBInfo values with new values parameter. Finally, it rewrites the configuration files with the new values.

This routine can be used to store the eShop order identifier when it is known.

### Parameters:

- \$site\_id: The slave site identifier that must be updated;
- **\$values**: An array of key/values that must be written into the sites information section.

### Sample:

```
// Retreive the contract information present in the session
$session =& JFactory::getSession();
$site id = $session->get('site id', null, 'contracts');
$payment ref = $session->get('payment ref', null, 'contracts');
$validity = $session->get('validity', null, 'contracts');
$vality unit = $session->get('vality unit', null, 'contracts');

$values = array();
// VirtueMart infos
$values['order id'] = $db->f("order id");
$values['order number'] = $db->f("order number");

// JMS Template infos retrieved from the session
$values['inc validity'] = $validity;
$values['inc vality unit'] = $vality unit;

require once(
JPATH ADMINISTRATOR.DS.'components'.DS.'com multisites'.DS.'classes'.DS.'utils.php');
MultisitesUtils::updateSiteInfo($site id, $values);
```





# 4.2.1.2.<u>function updateStatus( \$key, \$value, \$newStatus)</u>

Update the status value based on a key and a value.

This function searches for the site that has the key name = value expected.

This function scans all the slave sites and searches for "key" (variable) defined in the slave site and that has the "value" given in the second parameter. When the condition is a success, it updates the "status" fields with the "newStatus" value provided in the third parameter.

This allows you to use any key field in the scan.

For example, VirtueMart use the 'order\_id' field to identify the order and this information can be stored in the website info to later update the status.

This routine is used by billable website post processing to update an order status.

In case of VirtueMart, it is used by the plugin "onUpdateStatus".

### Parameters:

- **\$key**: The Key name the must be used to retrieve a website. (ie. 'order id')
- **\$value**: The value of the key. (ie 145 => 'order\_id' = 145)
- **\$newStatus**: An array with the list of new values to store in DBInfo

The possible status of a slave sites are:

- Confirmed
- Pending
- Cancelled
- Refunded

### **Returns:**

- **True** when update is OK
- **False** when an error occurs.

#### Sample:

Here below we give you an extract of very basic PHP code that could be used to update a slave site status with the JMS VirtueMart plugin Slave Update Status.



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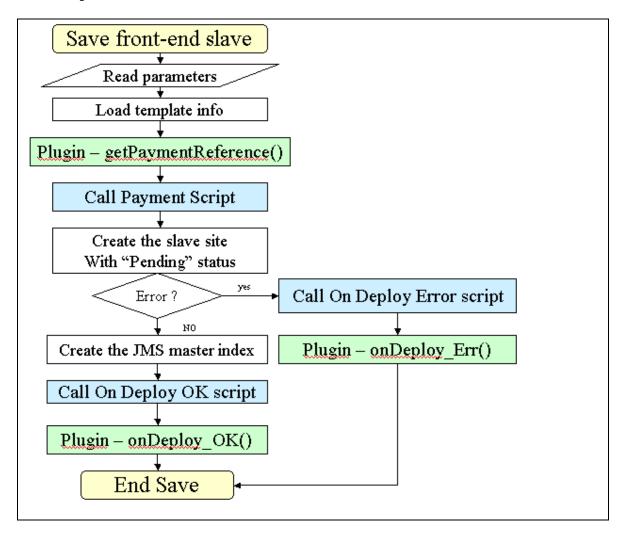
```
$newStatus = $statusCodes[ $order_status];

// retreive the VirtueMart order_id
$order_id = (int)$d["order_id"];

// Update the slave site that match the order ID and set the new status
require_once( JPATH_ADMINISTRATOR.DS.'components'.DS.'com_multisites'.DS.'classes'.DS.'utils.php');
MultisitesUtils::updateStatus( 'order_id', $order_id, $newStatus);
```

### 4.2.2. Multisites "front-end" slave site flow chart

In the figure below, we have summarized the processing of the front-end slave site saving in aim to highlight the different places where the external script is called.



In green box, is displayed the calls to the plugins and in the blue box, the call to the menu scripts.





# 4.2.3. MultiSites plugin API

When creating "billable" slave sites, JMS performs a call to "MultiSites" plugins.

In this section we describe the public functions that can be implemented for specific requirements.

The plugin can used to implement a special bridge between Jms Multi Sites and a specific eShop, or can be used to implement special database update required by some extensions.

Some extensions may save specific data that perhaps should be updated to reflect the new website URL, path or whatever that could be website dependent.

# 4.2.3.1.getPaymentReference( &\$d, &\$enteredvalues, &\$model, &\$template, \$renew)

This function is called before the creation of a slave sites and requires that you return a "payment reference".

### Parameters:

- **\$d**: An array of data;
- **\$enteredvalues**: This is an array with the parameter entered by the users.
- **\$model**: This parameter gives access to the "slave site" model. (MVC Model View Controler)
- **\$template**: This is a template object that contains the "website template" information.
- **\$renew**: This is a boolean flag that indicates if this is a new website or the update of an existing website.

#### Returns:

- **a Payment Reference** : A string with the payment reference
- **Null or empty** when an error occurs.

### 4.2.3.2.function onDeploy\_OK( \$d, &\$enteredvalues, &\$model)

This function is called once the website is created.

### Parameters:

- **\$d**: An array of data;
- **\$enteredvalues**: This is an array with the parameter entered by the users.
- \*model: This parameter gives access to the "slave site" model. (MVC Model View Controller)





### Returns:

- none

# 4.2.3.3.<u>function onDeploy\_Err</u> (**\$d, &\$enteredvalues, &\$model**)

This function is called when an error occurs during the website creation.

### Parameters:

- **\$d**: An array of data;
- **\$enteredvalues**: This is an array with the parameter entered by the users.
- **\$model**: This parameter gives access to the "slave site" model. (MVC Model View Controller)

### Returns:

- none

# 4.2.3.4.function onBeforeDeleteSlave( \$site\_id, &\$model)

This function is called before to delete a slave site.

#### Parameters:

- **\$site\_id**: The site identifier that will be deleted
- **\$model**: This parameter gives access to the "slave site" model. (MVC Model View Controller)

#### Returns:

- none

### 4.2.3.5.function onAfterDeleteSlave ( \$site\_id, &\$model)

This function is called after a website is delete.

This allows the example to perform additional cleanup.

### Parameters:

- **\$site\_id**: The site identifier that will be deleted
- **\$model**: This parameter gives access to the "slave site" model. (MVC Model View Controller)

#### Returns:

- none



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# 4.2.4. Multisites "front-end" slave site - sample scripts for VirtueMart.

The following description and scripts are given to explain the logic and must be used as a case study. In any manner it should not be used in production, as it does not process all the cases. It has been simplified for the case study. If you need a bridge between Jms Multi Sites and VirtueMart see the plugin "Jms Multi Sites for VirtueMart".

For VirtueMart the logic we have used is shown in green box in the following flow chart.

Here we have used the VirtueMart "payment extra info" that is available for some payment method. (ie. PayPal).

If you want to use VirtueMart with another payment module that does not use payment extra info, perhaps you should modify some VirtueMart code to update the slave site information with order id, payment reference and other things like that. In fact the problem is that you have to wait that VirtueMart has process the shopping cart to have an order ID.

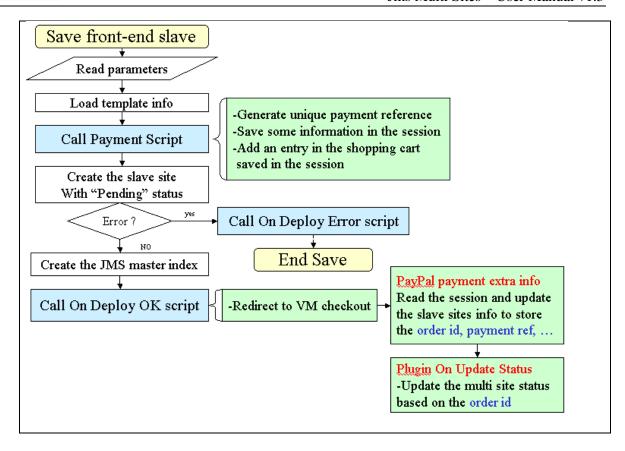
The sample PHP code is present in the directory

"...administrator/components/com\_multisites/samples/VirtueMart"
The following files are present:

- **checkout.jms2win\_result.php**: A PHP script that can be used as URL OK. In the following example, we have not used because we have used a plugin that do the same.
- **payment\_extra\_info.php**: A script that can be added into VirtueMart payment extra info field. We have used it with PayPal.
- **vm\_utils.php**: Some usefull function to communicate between VirtueMart and JMS.
- **plgvmslaveupdstatus\_V1.1.0.zip**: A very basic Jms Multi Sites plugin that demonstrate how to update a slave site status when a VirtueMart order status is updated. This require the JMS patch for VirtueMart.







The associated PHP scripts are:

1) Generate the Payment Reference and add an item in shopping cart

```
<?php
require_once( JPATH_COMPONENT_ADMINISTRATOR.'/samples/VirtueMart/vm_utils.php');
$payment_ref = uniqid(rand());
if ( $renew) {
    Jms2Win_VM_Utils::addItem_Cart( $Itemid, $site_id, $payment_ref, $sku, $validity,
$validityUnit);
}
else {
    Jms2Win_VM_Utils::addItem_Cart( $Itemid, $site_id, $payment_ref, $sku);
}
?>
```

2) Redirect to VirtueMart checkout

```
<?php
require_once( JPATH_COMPONENT_ADMINISTRATOR.'/samples/VirtueMart/vm_utils.php');
Jms2Win_VM_Utils::redirect_CheckOut( $Itemid);
?>
```





### 3) Payment Extra Info to add in PayPal VirtueMart payment module

This payment extra info allows you to update the order ID, the validity duration and payment reference into the slave site. Part of this information is retrieved for the session.

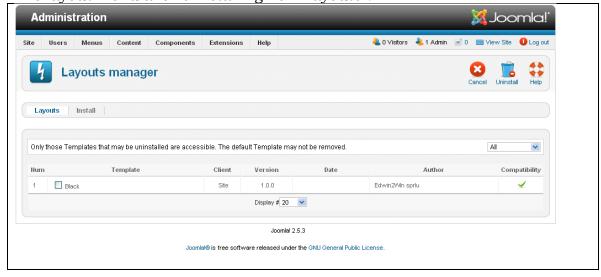
4) Update the Site status (with the VirtueMart plugin)

# 4.3. Front-end Layouts

The front-end layout can be customized.

You can either create your own layout (templates) or use layouts that you can find in our "www.jms2win.com" websites.

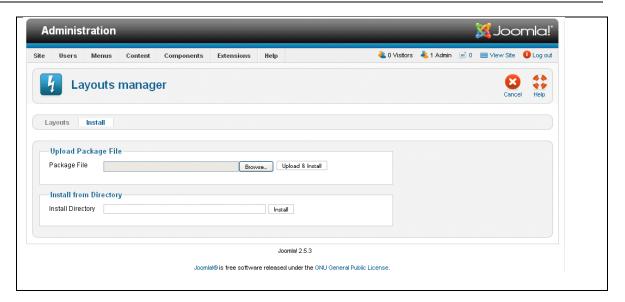
The layout menu allows installing new "layouts".





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The layouts are stored in the "/components/com\_multisites/templates" directory and their definition is very similar to the standard joomla templates.

If you want to create your own template, you just have to duplicate a layout present in the templates directory to build an new one and update its rendering.

For specific layouts, it is possible to declare "user defined" fields in the form that will be saved inside the slave site definitions. The field name must be called like "userdefs[XXXXX]" where the XXXXX is the name of the user defined field.

```
<input class="inputbox" type="text" name="userdefs[companyName]" id="companyName" size="90"
maxlength="90" value="<?php echo $this->row->userdefs['companyName']; ?>" <?php echo $readonly;
?>/>
```

Here it is an example of the "list anonymous" layout that can be added in Jms Multi Sites. It allows display the list of the slave site as a directory of website like some Search Engine propose it.









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# 5. Jms Multi Sites for VirtueMart plugin

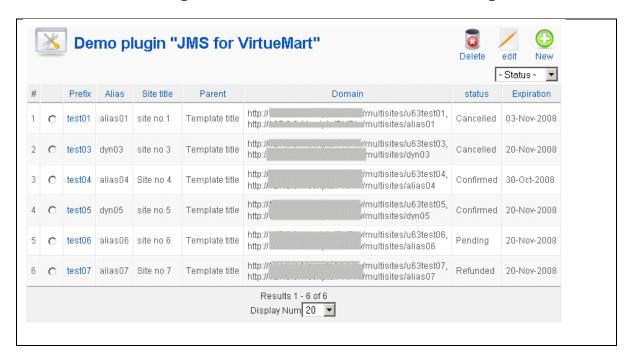
This plugin allows JMS to communicate with VirtueMart.

In fact it uses the VirtueMart shopping cart system to add items, proceed with payment and update the website status regarding the VM order status.

The following screen shot illustrate a typical Website ordering.

In Joomla, you define a menu item that uses the "MultiSites" layout. This functionality is only available for registered users. A control is performed to check if the user is registered event if you select "Public" menu.

With this menu, this give access to the front-end website management

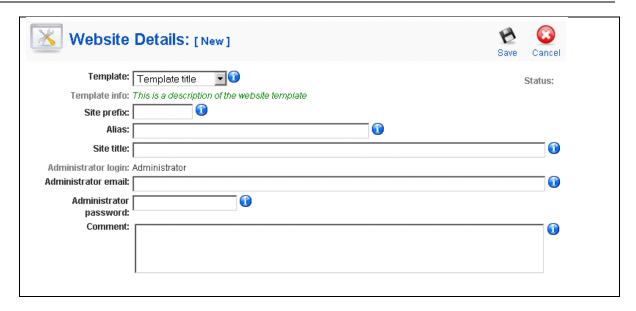


When a user create a new Website, they receive an empty screen



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Once he has introduced the parameters and click on "save" button, the plugin takes the hand and saves some information into session.

The website is created with the "Pending" status and the user is redirected to the VirtueMart checkout.







Checkout				
	Payment Meth	od Complete Order		
Name SKU	Price	Quantity / Update		Subtotal
Test product my-sku	] '	EUR8.48 1 🕏 🥫	l	EUR8.48
		•	Subtotal:	EUR8.48
			Total:	EUR8.48
			Tax Total:	EUR0.65
If you have a coupon code, please enter it Submit	below:			
lease select a Payment Method!				
Payment Method ———				
C PayPal				

The product name is the one defined in VirtueMart and the SKU corresponds to the one that is defined in the JMS "website template".

VirtueMart provides the price and other information.

Once the order is confirmed, JMS plugin again receives the hand to update the website information and add the corresponding VM order ID.



The order id that is stored in the Website is used to synchronise the VM order status with the JMS website status.



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Each time VM update the status of an order, it is reflected to the JMS website that corresponds to this order.





# 6. Language and internationalisation

The current component uses the standard Joomla language mechanism to display most of the messages.

It delivers English messages located in:

- "/administrator/languages/en-GB/en-GB.com\_multisites.ini".
- "/administrator/languages/en-GB/en-GB.com\_multisites.menu.ini".
- "/languages/en-GB/en-GB.com\_multisites.ini".

It delivers French messages located in:

- "/administrator/languages/fr-FR/fr-FR.com\_multisites.ini".
- "/administrator/languages/fr-FR/fr-FR.com\_multisites.menu.ini".
- "/languages/fr-FR/fr-FR.com\_multisites.ini".

If you have installed this component in another language than "English" or "French", you probably need to create another file for the appropriate language and translate all entries.





# 7. System requirements

- "Jms Multi Sites" has been tested with Joomla 1.5.26, joomla 2.5.28, joomla 3.6.5 stable and joomla 3.7.0 RC2 version under PHP 5.3.28, PHP 5.4.16 and MySQL 5.5.31.
- PHP 5 and MySQL 5.x is required.
- Older PHP 4.3 and MySQL 4.1.x is no more supported
- Other database engines such as Microsoft SQL Azure, SQL Server are not supported.





# 8. Joomla and extension upgrades

This section describes what to take into consideration when Joomla, or/and extensions, have an update that must be installed.

# 8.1. Upgrading the Joomla Core

As for Joomla itself, the upgrade can be performed only once. In general the upgrade deals with files that are not modified by Jms Multi Sites.

If the Joomla upgrade restores a file that is patched by JMS, the installation patch will have to be re-applied.

In some cases Joomla might restore a file that will require the installation directory to be removed in order to access the back-end. In this case, you will have to rename or delete the installation directory in order to Jms Multi Sites.

(If you want to know if a Joomla upgrade will restore a file that is patched by Jms Multi Sites, you can explore the Joomla upgrade distribution (zip, tar.gz, etc.). Search to find files in their distribution that will replace one or more files that are part of Jms Multi Sites patch list.)

Before installing Joomla update, it is recommended to un-install the Jms Multi Sites patches. This is just a security to reduce a risk of inconstency. We have encounter such potential problem with one past release of Joomla that have required to un-install JMS patches before applying the Joomla update.

# 8.2. Updating Extensions

The upgrade of a foreign extension depends on the kind of upgrade you wish to perform.

To know if the upgrade must be replicated on each web site, you must know whether this impacts the database definition. If not, you can install the update on the master site and it will be automatically available for all the slave sites.

If the extension update impacts the database definition, (i.e. adds table, adds fields, adds values, etc.) you will have to repeat the upgrade of the extension on each slave site to apply this database upgrade.

In general a bug fix does not concern the database and can therefore be applied only once on the master website.

# 8.3. Jms Multi Sites upgrade

As for the upgrade of Jms Multi Sites itself, it is designed to overwrite the files of a previous installation, as it does not save any information into the database. This means there is no need to un-install a previous Jms Multi Sites installation to upgrade to a new version of Multi Sites.

When you have purchased JMS, you have received a download ID that allows you download the product a maximum of 3 times during 5 days.





When limit is reached or the download period is expired, it is still possible to request a new download ID when you go in our website.

### 8.3.1.Get a new download ID for the latest version

To receive a new download ID corresponding to the product you have ordered, you have a special "get latest version" menu that is available when you are logged into JMS.

This option is provided to allow you update and receive bug fix in the JMS core. The "Check for Update" only distribute the new patches definition for the compatibility with the extensions.

The "get latest version" does NOT provide you the update to the upgrade of JMS.

An upgrade correspond to new functionalities present in JMS and the are identified by the second digit in the version number.

The "get latest version" give you the update corresponding to the last digit of the version number.

The procedure to "get the latest version" consist in go to http://www.jms2win.com/get-latest-version

Select (check box) the product for which you want to receive a new download ID and click on "get latest version" button in the top right.

This will resend you an email with the new download ID corresponding to the selected producted.

### 8.3.2. How to update Jms Multi Sites

Normally, you can install JMS over a current one.

Nevertheless, It is advised to "uninstall" the JMS patches with current version of JMS before installing the new JMS version.

When the new JMS version is installed, you can re-install the JMS patches.

Uninstall the JMS patches is also recommanded when you want to update Joomla itself.

This reduces a risk of inconsistency between the patches that are present and the patches that are missing due to the Joomla update (new files installed by Joomla).





Starting with Joomla 3.7, the about us menu has a "Download ID" field that allow "Multisite" self declare into the list of the extension that can be updated via the extension manager / update menu.

When it is declared into the joomla extension update then you can benefit of the notification when a new version is available and also use the Extension manager / update menu to get the latest version.





# 9. Special procedure when working on localhost

Jms Multi Sites is not designed to work on a localhost because it this case, some environment parameters used by Jms Multi Sites may be not present and could provide unpredictable results.

To solve such kind of problem and also give the opportunity to simulate any slave site, Jms Multi Sites contain a special feature that is only enabled when working on a localhost.

Here we describe the special procedure that we use in development and that does not work in production as soon as the domain name is different of localhost or 127.0.0.1.

The procedure consist to add a parameter to simulate any slave site defined in JMS.

The method consists to add \_host\_=xxxx parameter in the URL where xxx is the slave site domain name to simulate.

Suppose you have defined in JMS a <a href="http://www.slave1.com">http://www.slave1.com</a>

If you want to login in the administration of this website http://localhost/master/administrator/?\_host\_=http://slave1.com

There are some constraints.

You can not have ANY website defined in JMS with <a href="http://localhost">http://localhost</a> or the \_host\_ parameter will be ignored.

The \_host\_ parameter is saved into the session.

This means that when you log off, or when session expire, you are automatically returned to the master website.

As JMS create the session before Joomla, this may have side effect with some extensions.

This method is usefull to have the same JMS definition than the one used in production.

We hope this special procedure may help some users when working on a localhost.

Remember that this feature only works with localhost and is unavailable when you working with real domain name.

This feature also assume that you don't use the Symbolic Link and specific folders for the slave sites.

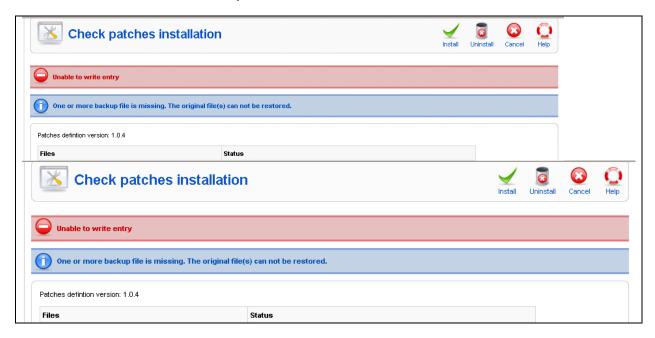
This is a feature used for developement and there are limitations.





# 10. Troubleshooting

# 10.1. Unable to write entry



If the error message, "Unable to write entry" appears, this means that one or more files that require patching are set to "read only," or that you do not have the necessary permissions to modify the file.

To help the user identify the files that have potential permission problem, the "check patches" function gives a report on each file and directory that could be problematic. It is up to the user to correct the permission of the files and/or directories to allow patches deployment -- this can be done using a Unix prompt or other tools.

In Unix, the command chmod and chown can be used to change the permissions, and the owner of a files/directories. For more information on Unix permissions, please refer <a href="here">here</a>.





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