

# JOOMLA DAY FRANCE 2014

## Legacy Mode for Joomla!



## Joomla Day Paris

23rd & 24th may 2014



JMS MULTI SITES

Joomla Day Paris: 23 & 24 may 2014

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# WHAT IS A CMS

CMS = Content Management System

This is a system to manage the content

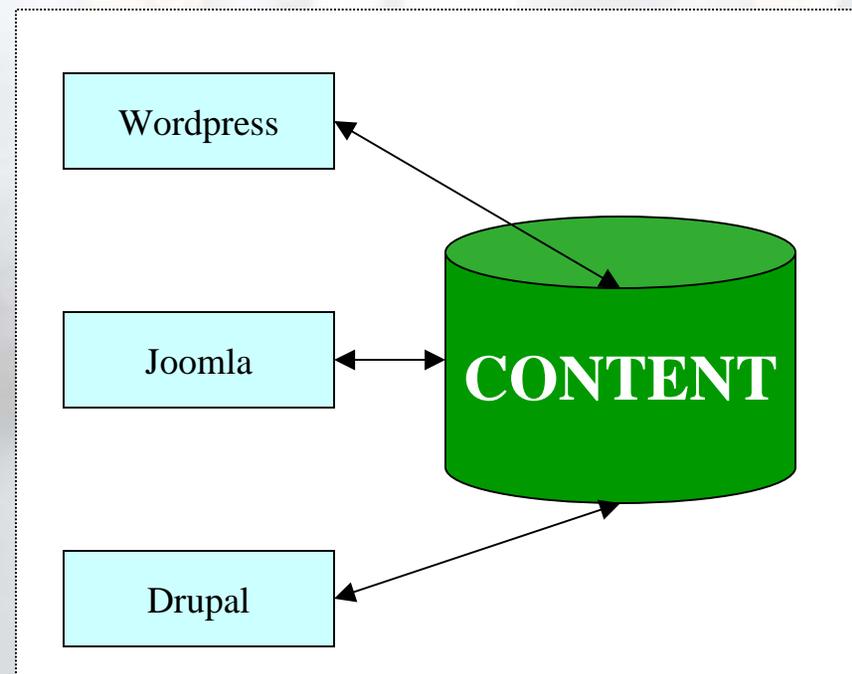
The most important thing is the **CONTENT**.

Not the system that manage the content.

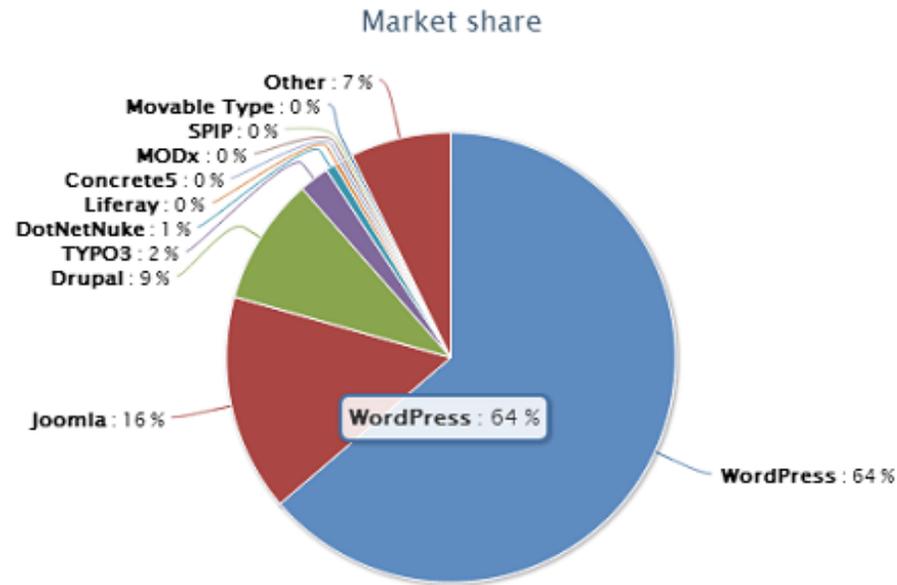
It exists plenty of CMS.

The most populars CMS are:

- Wordpress
- Joomla
- Drupal



# CMS MARKET SHARE



Highcharts.com

#	APPLICATION	WEBSITES USING THIS	PAGEVIEWS
1	WordPress	585,022	25,262,238
2	Joomla	143,360	3,829,550
3	Drupal	83,893	5,493,798
4	TYPO3	19,957	576,929
5	DotNetNuke	6,450	120,184

<http://www.opensourcecms.com/general/cms-marketshare.php>



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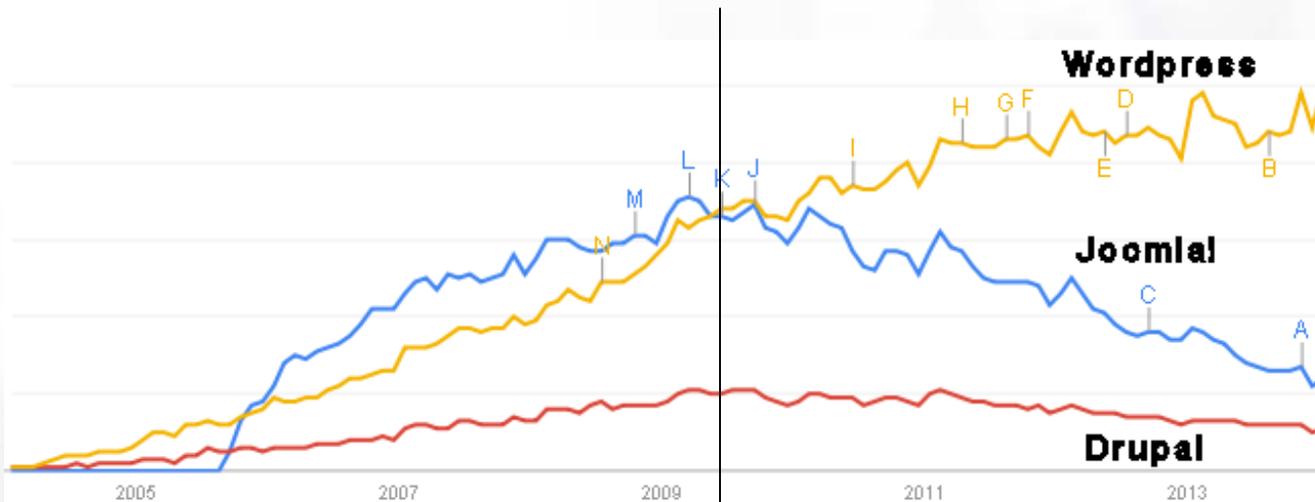
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# WHAT IS CHANGED in 2009

## CMS TRENDS



- WP3
- WP2
- WP1

WP Capitalize his extensions portfolio

Joomla 1.6 is no more compatible with J1.5

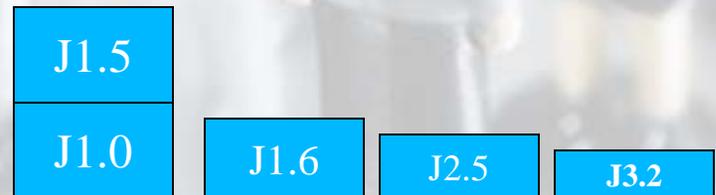
22-jun-2009: Release of J1.6 alpha

People that use Joomla are mainly « **Webmaster** » that **don't like the changes**.

They want to be able built thing over the existing thing and **don't want** to have revamping or **redoing things** all the times

Joomla decided to let the « **guru** » take the decisions and they **decided** to allow **developers working as they wants** without any care of the users needs.

Joomla requires to redo the extensions  
And loose users that are discouraged



# STRATEGY OF JOOMLA

## Joomla 1.0 & 1.5 Strategy

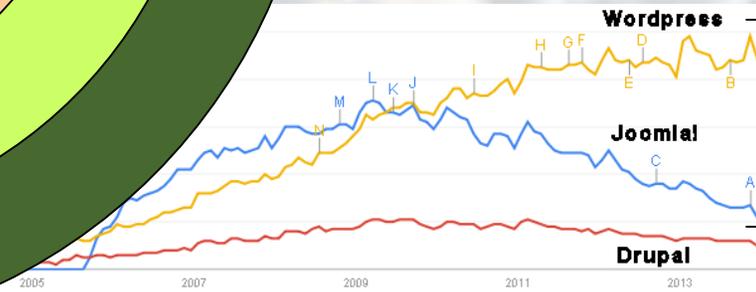
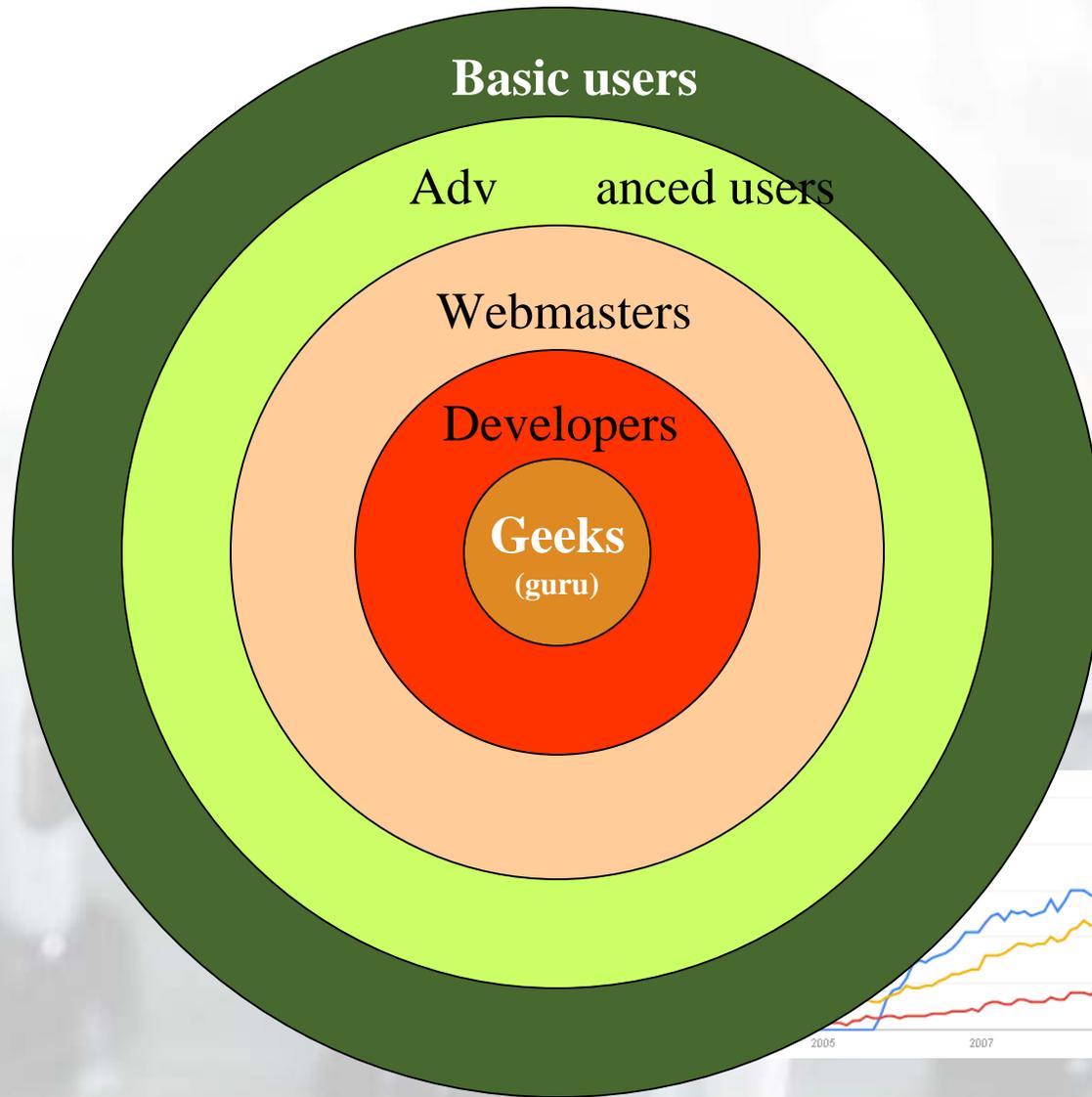
Was **users** oriented and was providing a « legacy mode" to capitalize on their experience.

## Joomla 1.6+ Strategy:

Joomla is developed by developers for for **developers (platform & CMS)**

## What is new for 25-april-2014:

Announce of « backward » compatibility for the CMS (Not for the platform) and review the development cycle



**USERS**



**Developers**



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# SPACE SHUTTLE, SOYOUZ, ARIANE: Who wins ?



Space Shuttle: (alias Joomla)

- Too sophisticated
- Too hard for the maintenance



**Soyouz:** (alias Wordpress)

- Simple (old technology)
- Cost reduced and reliable



Ariane:

- Only for heavy weight
- Too expensive

**The Winner is: Soyouz**

Because it is reliable.

It corresponds to the user needs.

The user does not care about the technology.

They are just concerned about the result (and profit)

# How to address the compatibility issue

## Migration tools:

### ■ JUpgrade

Installed on J1.5 and create a clone for J2.5

It downloads and unzip a Joomla 2.5 that is stored in a subdirectory

Copy all the table from J1.5 into J2.5

It is mono-site and works perfectly on most popular extensions.

**Joomla template (J1.5) is not compatible on J2.5: Must be changed or rewritten.**

**Some extensions may not exists anymore on J2.5+**

### ■ SP Upgrade

Connect on another Joomla DB to perform the import from its content.

You create a new fresh websites where you import the data from the older Joomla version.

It can be run on multiple websites

It works perfectly with most popular extensions.

**Joomla template (J1.5) is not compatible on J2.5: Must be changed or rewritten.**

**Some extensions may not exists anymore on J2.5+**

## Legacy mode

### ■ At the code level (php)

ie. Legacy plugin 1.0 under Joomla 1.5

### ■ At the DB level

Legacy component: (Bridge to **share the users** or **Same DB** for different Joomla Version)

Experimental in Jms Multi Sites 1.3: (**Same DB** for different Joomla Versions)



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# PROBLEMS ENCOUNTERED WITH MIGRATION

- The extensions does not exists anymore (or not yet available) with the new version of Joomla
- The Joomla template used in the website are not necessary compatibles with the new version of joomla and potentially require a review or update
- Potential lost of specific development (customization)
- No guarantee that Joomla will not force you again to migrate in the future (unstable and unpredicatable)

## This is the reason why we decided:

- To create a « legacy » extension to allow user migrate parts (no all) of their websites when they want
- Do the UPDATE of the old Joomla 1.5 to provide security fix and PHP 5.4 compatibility



# ALTERNATIVE SOLUTION: LEGACY

## Objectives

- Restore the user confidence and reduce the number of users discourage by the migrations

- Allow to continue using the old extensions (Capitalise on the catalogue)

The objective is to avoid redoing things that may sometimes have required several month of works.

- Allow several Joomla versions working together.

2 solutions - either:

⇒ Share the users between the websites  
Type: **Bridge**

⇒ Or share the same DB with same prefix to share the same table content between different Joomla versions  
Type: **Legacy**



# HOW TO MAKE COMPATIBLE DIFFERENT JOOMLA VERSIONS

## Different approaches

### ■ PHP Code : (Impossible solution)

Some functions or classes have the same name between different versions but the behaviour has changed is not compatible.  
Functions, classes, arguments moved, renamed, deleted, ...

### ■ DB Structure : (This is our solution)

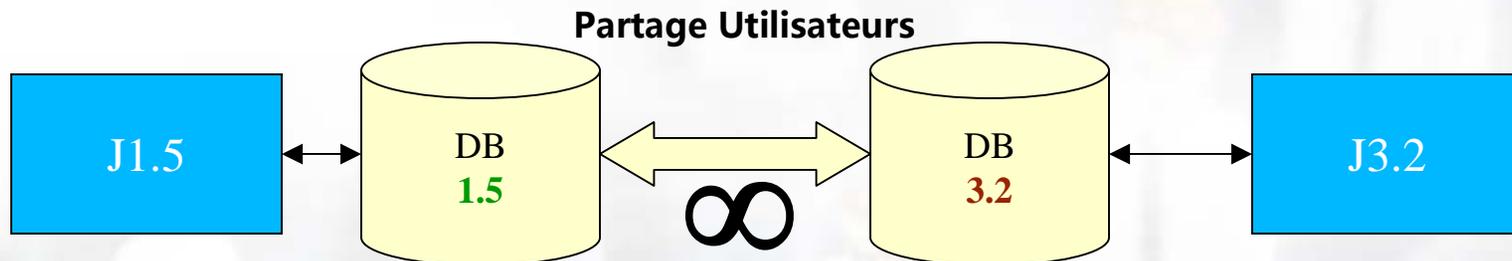
- ⇒ The DB structure changed less than the the PHP code
- ⇒ How to make the DB structure compatible between different Joomla versions
  - ⇒ Never remove a field in a table
  - ⇒ Never reduce the size of the field in a table
  - ⇒ Only add new fields and indexes
  - When fields are mandatory for a specific Joomla version,
    - ⇒ Use triggers to compute the missing data
  - ⇒ Create links between tables when they are renamed (ie. Banners/banner)
- ⇒ Level of functionalities is "degraded"
  - ⇒ ACL is limited to the J1.5 level
  - ⇒ Require a new version of J1.5 to address the compatibility with J2.5.18+ et J3.2.2+ due to password algorithm that was modified.
    - ⇒ So creation of the "aJmool" website

# TYPES OF ARCHITECTURE

## 2 approaches

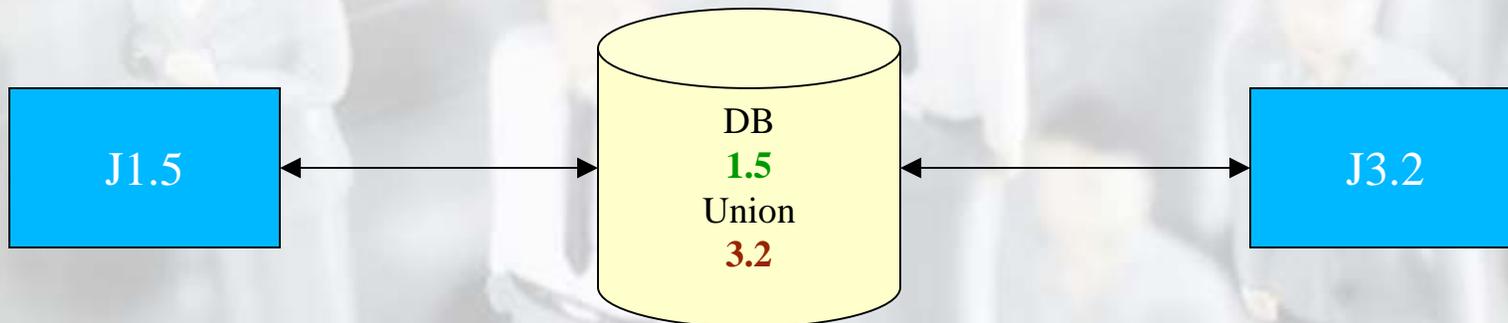
- **BRIDGE:** Keep different DBs per website and “synchronize” the users

This is what we named “bridge” where only **the users are shared** and potentially the content of some extensions.



- **LEGACY:** Create A SINGLE DB for all the websites to avoid the “synchronization” :

⇒ In this case, tables and fields can not be removed from the DB to allow them continue to work.



- Combined with “Jms Multi Sites” and sub menu (sef), the execution can be done with different joomla versions

# BRIDGE - ADVANTAGES & DISADVANTAGES

## Advantages

- **Only the users are shared (and potentially some extensions).**
- **Connections are reduced and therefore interactions are limited with the other websites**
  - ⇒ The risk of incompatibility is reduced.

## Disadvantages

- **The other contents like menus, banners, articles, ... are NOT shared.**
- **The websites remain independent in terms of content but also in terms of look as only the users are shared.**



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# LEGACY - ADVANTAGES & DISADVANTAGES

## Advantages

### ■ Share the same content **between different Joomla version (Menu, articles, ...).**

The advantage is that all the websites share the same content between all the Joomla version and each Joomla version is only responsible to be executed under a specific Joomla version. The other Joomla version can just read the content when they are compatible

⇒ Sharing of Community Builder, JomSocial, Hikashop, ...

## Disadvantages

### ■ **Complex architecture that may become incompatible with future versions de Joomla.**

⇒ The risk of future incompatibility can be significant due to the complexity of the architecture

⇒ This can be a temporary solution while waiting for a migration.

### ■ **Looks (Joomla templates) potentially remains specific per website**

### ■ **The current solution is only available with Jms Multi Sites version 1.3.x.**

⇒ An integration in the “legacy” extension is in progress



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# LEGACY – WHY IT WORKS

Joomla 1.5

#\_\_components  
#\_\_modules  
#\_\_plugins

LEGACY

The definition of the extensions is separated  
=> No connection between the websites

Joomla 2.5+

#\_\_extensions  
•Components  
•Modules  
•Plugins

#\_\_users  
#\_\_core\_acl\_groups\_aro\_map

Automatique Insert of the  
ACL in J2.5+ when a user is  
created under J1.5  
*Not the reverse*

#\_\_users  
#\_\_user\_usergroup\_map

3rd parties extensions still compatible  
•Community Builder  
•Hikashop  
•...

same tables  
and  
same structure  
Or compatible structures

3rd parties extensions still compatible  
•Community Builder  
•Hikashop  
•...

3rd parties extensions that does not  
exist any more  
•JoomFish  
•...

Tables  
not used

Not applicable

3rd parties extensions that are  
incompatible

Tables  
with incompatible structures  
and without solution

3rd parties extensions that are  
incompatible



# COMPOSANT « LEGACY »

Dashboard

Joomla!

Help Options

Dashboard  
About

**Configuration** 1 Customisation 2 Results 3

Configuration Name: [Create](#)  
test01

path on sites:  
M:\mywebs\b1526  
M:\mywebs\b2518

Legacy mode:  
Bridge

Fix site DB's :  **2: Customisation** →

**BRIDGE**

## Simple configuration:

- Path to the location of the Joomla web sites where the file « configuration.php » is located
- Choice of the kind of architecture (Legacy mode)

**Configuration** 1 Customisation 2 Results 3

Configuration Name: [Create](#)  
test01

path on sites:  
M:\mywebs\b1526  
M:\mywebs\b2518

Legacy mode:  
Legacy

Fix site DB's :  **2: Customisation** →

**LEGACY**

# BRIDGE – PERSONALISATION SIMPLE

Configuration **1** Customisation **2** Results **3**

Configuration Name : test01  

## Bridge

#	Components   	Site #0	Site #1
0	Site Name	Bridge 1.5.26	Bridge 2.5.18
1	Code Version	1.5.26	2.5.17
2	DB Structure	• 1.5	• 2.5.18
3	DB Name	b1526	b2518
4	DB Prefix	b1526_	b2518_
5	Core Joomla	Core Tables	Core Tables
6	com_comprofiler	<input type="radio"/> No <input type="radio"/> Custom <input checked="" type="radio"/> Yes <input type="text" value="Site #1 :Bridge 2.5.18"/>	

← 1: Configuration Fix site DB's :  3: Results →

# BRIDGE – PERSONALISATION DÉTAILÉE

Configuration 1 Customisation 2 Results 3

Configuration Name : test01

## Bridge

#	Components	Site #0	Site #1
0	Site Name	Bridge 1.5.26	Bridge 2.5.18
1	Code Version	1.5.26	2.5.17
2	DB Structure	• 1.5	• 2.5.18
3	DB Name	b1526	b2518
4	DB Prefix	b1526_	b2518_
5	Core Joomla	Core Tables	Core Tables
		#__core_acl_aro	
		#__core_acl_aro_groups	
		#__core_acl_aro_map	
		#__core_acl_aro_sections	
		#__core_acl_groups_aro_map	
		#__core_acl_groups_aro_map_oninsert_after	
		#__session	#__session
			#__user_notes
			#__user_profiles
			#__user_usergroup_map
			#__user_usergroup_map_legacy
			#__usergroups
		#__users	#__users
			#__viewlevels
6	com_comprofiler	No Custom Yes	
		List of the tables :	
		#__comprofiler	
		#__comprofiler_field_values	
		#__comprofiler_fields	
		#__comprofiler_lists	
		#__comprofiler_members	
		#__comprofiler_plugin	
		#__comprofiler_sessions	
		#__comprofiler_tabs	
		#__comprofiler_userreports	
		#__comprofiler_views	

← 1: Configuration Fix site DB's:  3: Results →

### Detail deploy:

- Allow viewing the tables that are shared between the webistes
- Choose the website with which share the content of the extension



# RESULTATS

Configuration **1** Customisation **2** Results **3**

Configuration Name : test01 Results history: 2014-05-18 09.13.15 (bridge) ▼

## Results

All statements Success Errors

### Statements to execute

```
--  
ALTER TABLE b1526.b1526_users ADD `lastResetTime` DATETIME NOT NULL DEFAULT '0000-00-00 00:00:00' COMMENT 'Date of last password reset';  
ALTER TABLE b1526.b1526_users ADD `resetCount` int(11) NOT NULL DEFAULT '0' COMMENT 'Count of password resets since lastResetTime';  
  
ALTER TABLE b1526.b1526_users ADD KEY `idx_block` ( `block` );  
  
--  
CREATE TABLE IF NOT EXISTS b2518.`b2518_user_usergroup_map_legacy` (  
  `group_id` integer NOT NULL COMMENT 'Foreign Key to 2.5+ # usergroups.id',  
  `group_id15` integer NOT NULL COMMENT 'Foreign Key to 1.5 # _core_acl_aro_groups.id',  
  PRIMARY KEY (`group_id`,`group_id15`)  
) DEFAULT CHARSET=utf8;  
  
REPLACE INTO b2518.`b2518_user_usergroup_map_legacy` (`group_id`,`group_id15`)  
VALUES  
(1, 29), # Public  
(2, 18), # Registered  
(3, 19), # Author  
(4, 20), # Editor  
(5, 21), # Publisher  
(6, 23), # Manager  
(7, 24), # Administrator  
(8, 25); # Super Users
```

← 2: Customisation

### Pre-requisit:

- It is assumed that new joomla websites (2.5 or 3.x) does not contain any joomla users and they can be dropped and replaced by users present in the old joomla website (1.5)

### Automatic ACL update:

- The ACL in 2.5 (or 3.x) are automatically created based on the data present in J1.5 (not the reverse)

### Addition plugin required in J2.5+ (or 3.x):

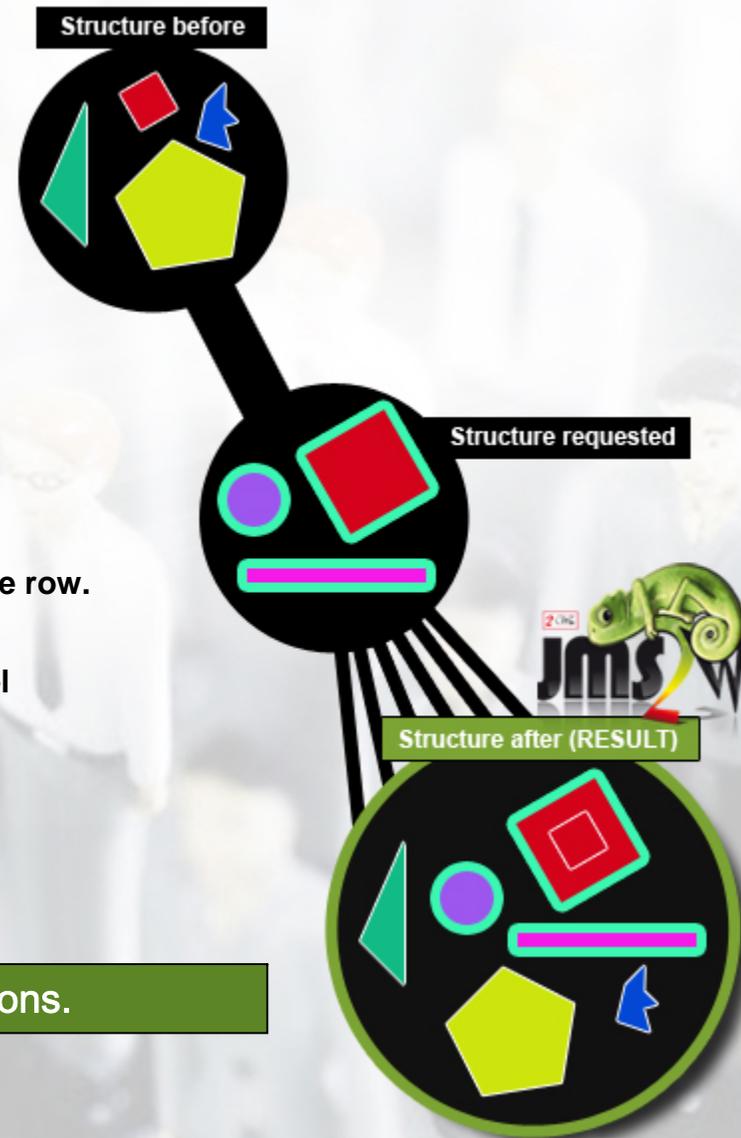
- Time Zones compatibility  
numeric in J1.5 and string in J2.5+)

# LEGACY MODE IN JMS 1.3 (principle)

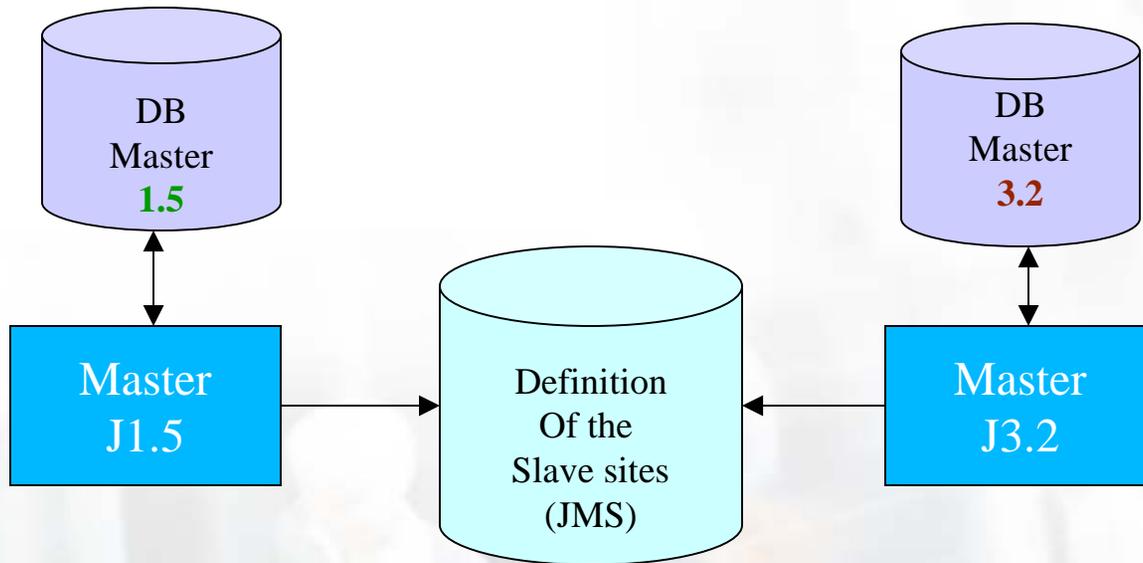
## Possibility to

- **Check the DB structure and data based on :**
  - Specific SQL script
  - Manifest installation SQL queries or external SQL files
  - Structure of the master DB or "template" (parent) website
- **Fix the DB structure for the update, upgrade or migration.**
- **Can fix single insert with multiple row into multiple insert single row.**
  - This allow applying fix on a single row instead of all rows of an insert
- **Can convert the SQL statement into a **legacy mode** data model**
  - Never drop column, never drop tables
  - Only add columns or tables or index
  - Only increase the size of existing columns

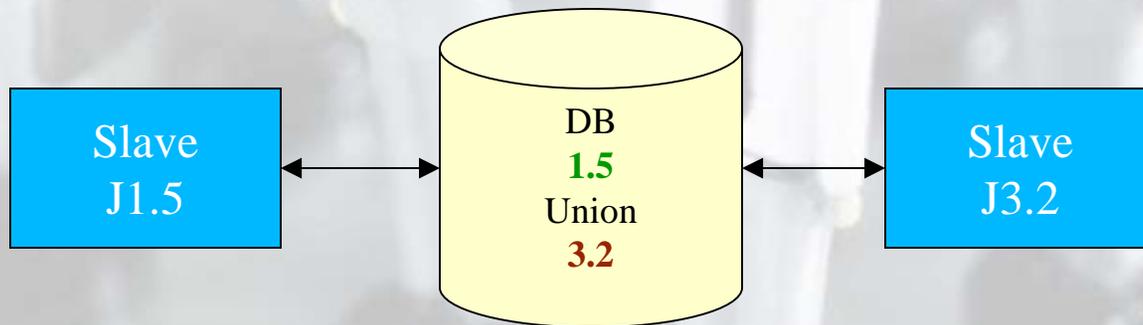
Generalize the « Fix DB » to all the extensions.



# LEGACY MODE IN JMS 1.3 (Architecture)



The « legacy mode » is only applicable to the JMS slave sites



## Procedure:

- Create a master under 3.2 with JMS 1.3 (Recommended: No content in the master)
- Configure the master 3.2 to share the JMS settings setup under the master 1.5  
=> See setting menu
- Create a slave 3.2 (based on the master 3.2) with an URL that is a subdirectory of the website « 1.5 » and a deployment folder that is located in the site 1.5  
=> rule « replicMasterSubdir »
- Go in the JMS maintenance menu to fix the DB structure with usage of the legacy mode
- Install the « legacy » plugin in the J3.2 website

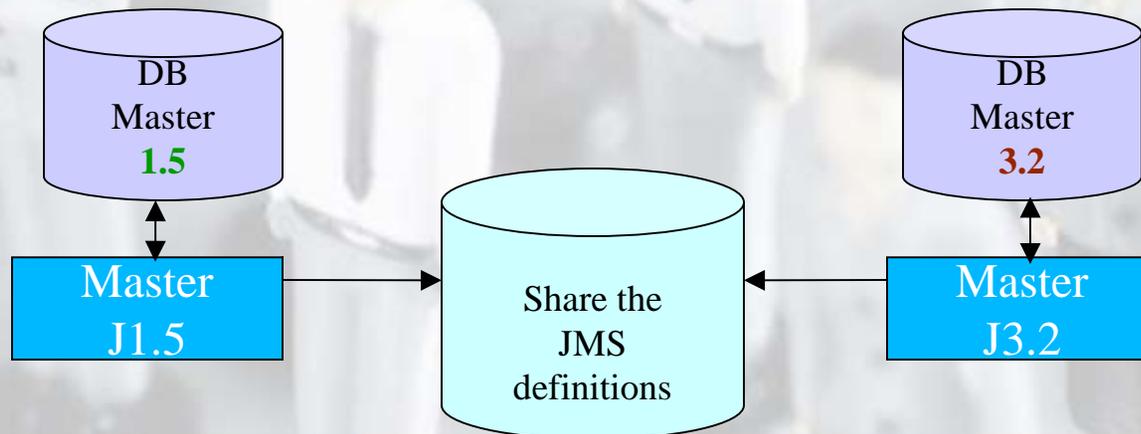
# LEGACY MODE IN JMS 1.3 (Share Multisite)

## Path to Jms Multisite configuration

- The objective is to share the slave sites definition between JMS that are running under different Joomla versions



The screenshot shows the Joomla! Settings interface. The 'General configuration' tab is active, showing the 'Multisites path' field set to 'M:\mywebs\j321\multisites'. Other fields include 'Multisites directory permission' (7 5 5), 'Top Level Domain parsing' (No), and 'Letter tree structure' (No). The 'General information' tab shows 'Product ID', 'MySQL Version: 5.5.31 Sharing supported', and 'Billable websites' with 'Website count: 287' and 'Website quota: 100000'.



# LEGACY MODE IN JMS 1.3 (Maintenance)

« Maintenance » menu in JMS

Maintenance

Refresh JMS Links Remove JMS Links Install packages

Manage sites  
Templates  
Tools  
Check patches  
Maintenance  
User's Manual  
Check for Updates  
Settings  
Layouts  
About us

Filter:  Num

Admin Tools  
Banners  
Contacts  
Joomla! Update  
Meeting Schedule  
Messaging  
Multi Sites  
Newsfeeds  
Post-installation Messages  
Redirect  
Search  
Smart Search  
Tags  
Weblinks

Manage sites  
Templates  
Tools  
Check patches  
Maintenance  
User's Manual  
Check for Updates  
Settings  
Layouts  
About us

Fix DB Fix with skipped Check DB

Extension ID	Name
700	files_joomla

## Possibles actions :

- Check DB: Verify the DB structure
- Fix with skipped: Repair the DB Structure including the SQL statements that were not understood
- Fix DB: Repair the DB structure with only the SQL statements understood by the JMS sql parser

Maintenance

Refresh JMS Links Remove JMS Links Install packages Remove Joomla files

Fix DB Fix with skipped Check DB



# LEGACY MODE IN JMS 1.3 (Legacy Mode)

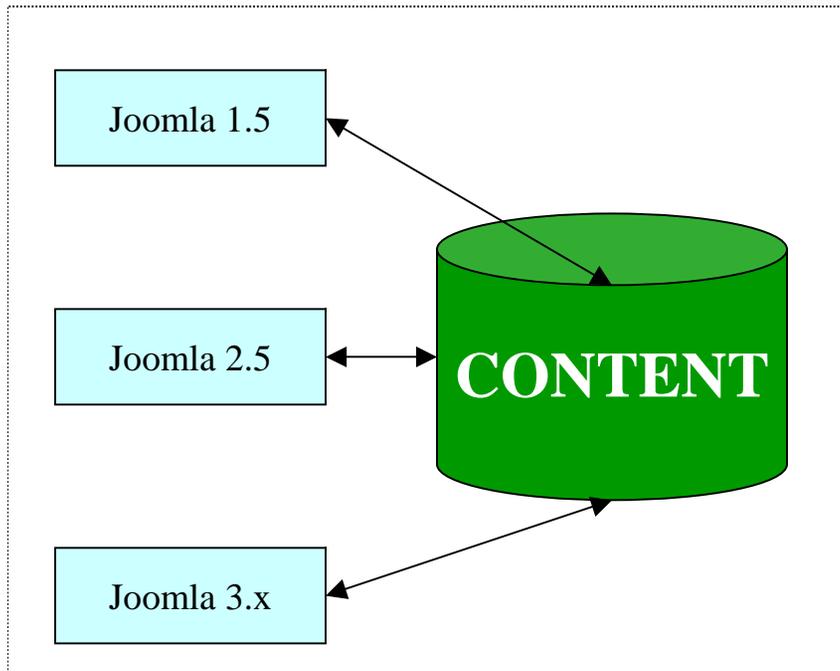
Extension ID	Name	Code Version	Type	Element	Folder	DB Version	Site Info
700	files_joomla	3.2.1	file	joomla		3.2.2-2014-01-23	<p>Extension path : M:\mywebs\j322</p> <p>Selected schema : file[joomla]mysqlMASTER install</p> <p>72 database changes were checked successfully (OK)</p> <p>14 database changes have errors.</p> <p>2 database changes did not alter table structure and were skipped.</p>
10032	admintools	2.6.2	component	com_admintools		2.6.2	<p>Extension path : M:\mywebs\j322\administrator\components\com_admintools</p> <p>Selected schema : component[com_admintools][2.6.2]mysqlmaster: admintools</p> <p>14 database changes were checked successfully (OK)</p>

Legacy mode means that CREATE TABLE structure is VERIFIED and that DROP COLUMN are IGNORED and only new columns are added or modified with greater size



# LEGACY MODE- CONCLUSION

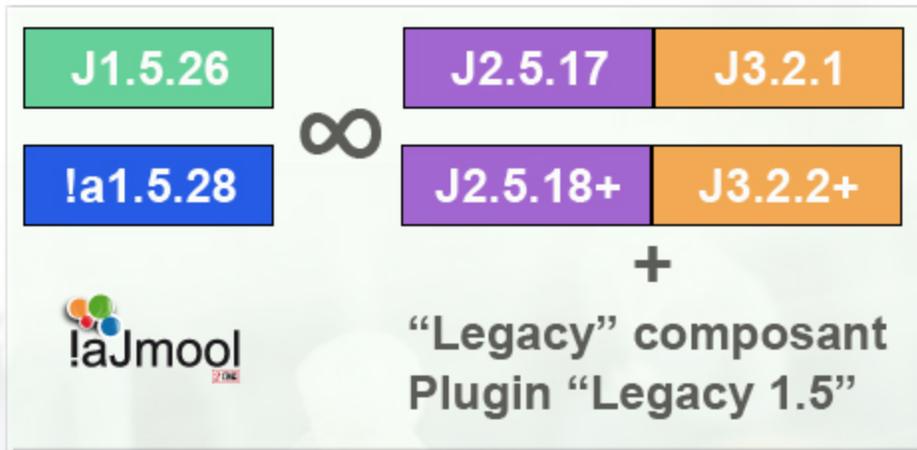
## Content Management System



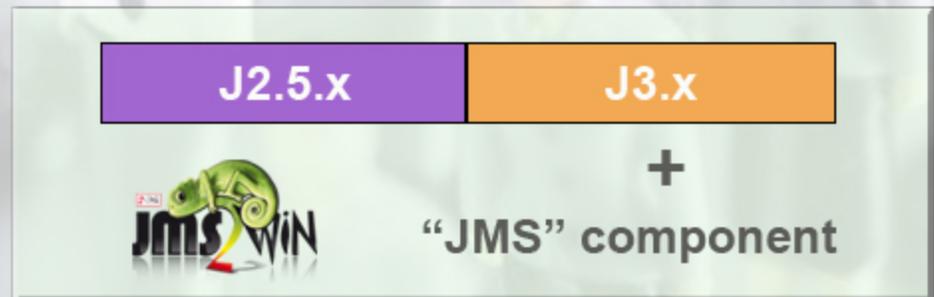
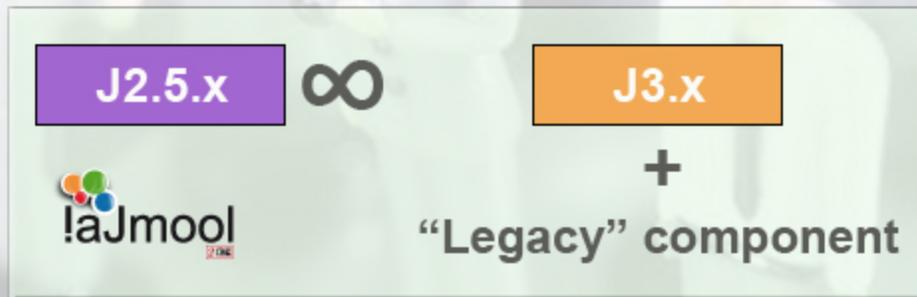
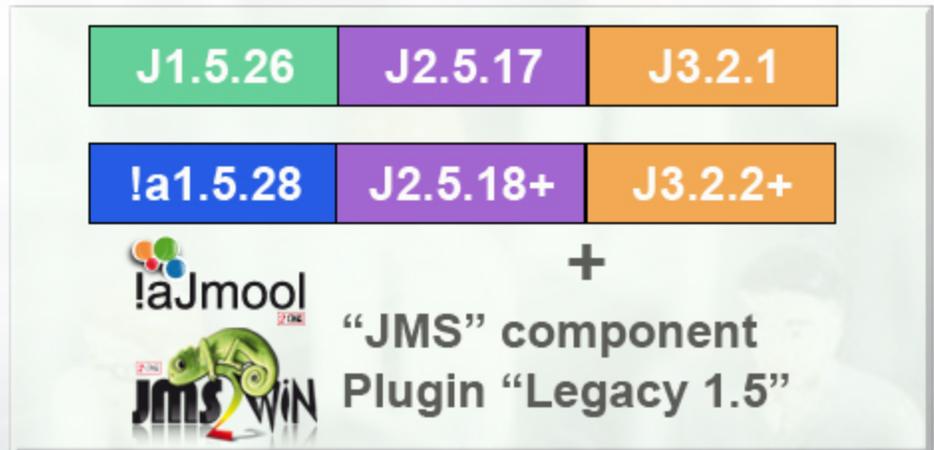
- The **DB structure** is **more stable** than the PHP code used to manage the content
  - ⇒ The developers generally keep a compatible structure between the versions
- The 25-april-2014, joomla **announced** new rules for the development and it can be now expected a « **backward compatibility** »
  - ⇒ Possibility to report bugs related to the incompatibilities

# MODE LEGACY – MISE EN OEUVRE

BRIDGE



LEGACY

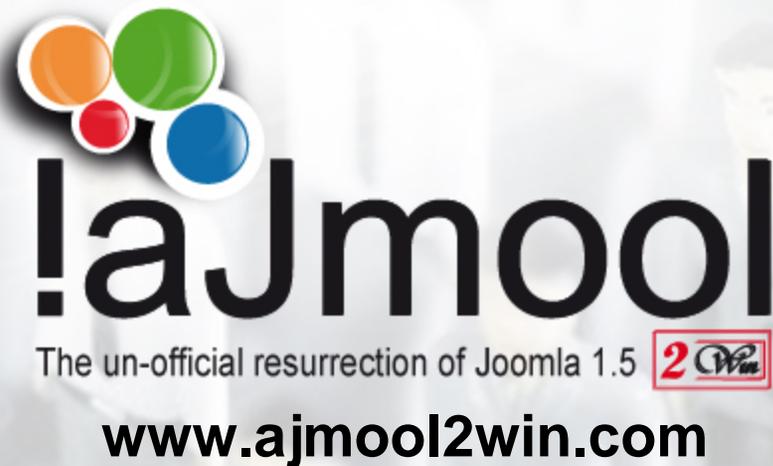


# THANK YOU

Thank you to the **Joomla Day Paris** organisers to have give us the opportunity to present

« the legacy mode »

and thank you to you for your attention !



«Jms Multi Sites » component:  
=> Maintenance / Legacy Mode

- Compatibility with PHP 5.4
- Security fixes
- « User login » compatibility with J2.5.18+ & J3.2.2+

- « Legacy » component
- « Bridge Mode »
- Plugin « Legacy 1.5 »



<http://www.ajmool2win.com/joomladay-paris-2014-en>



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