Future upgrading questions

Posted by oorzaak - 2012/02/15 21:29

Hi Edwin,

I just purchased MultiSites and I am testing it for a project which involves one central site and 10+ regional sites. So far testing is ok, yet I have some questions about future upgrading situations. I could not find any documentation on these but maybe I'm wrong; if so, please tell me.

Upgrading Joomla - no, I do not mean from 1.5 to 1.6+ but just an ordinary upgrade from, let's say, 1.7.3 to 1.7.4. How does this work with MultiSites? Especially regarding the fact that MultiSites is said to be, in a way, a core hack?

Upgrading MultiSites itself - does this have any specific issues?

When it comes to upgrading and managing components, modules and plugins, it seems to me that in the Tools panel, actions can be made only for one slave site at a time. If this is correct, this seems a bit inefficient when managing 10+ identical slave sites. Or can I avoid this by making a template? I did not take time to do that.

I hope you can help me.

With kind regards,
Frits Jongbloets

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Re: Future upgrading questions

Posted by edwin2win - 2012/02/16 21:31

Let remember some definitions.
Update generally means that you have bug fixes and no DB layout modification.
Normally an update is identified with the build number (the 3 part of the number)
(ie. JMS 1.2.75 ro 1.2.76)

The upgrade generally mean that you have a change in the functionality and that the DB layout is modified. This is the release number that is in second position (ie JMS 1.2.x to 1.3.x)

When you have incompatibility between version, this is reflected with the major number.
In general you have a migration operation to do to import the data from an older version.
(ie. product Version 1.x.y to Version 2.x.y)

Joomla does not apply those rule and gave their own definition that is different of the commonly adminitted definition.
Sometimes, inside a build they perform an upgrade and change the DB layout.

So to reply to your question, the key element is to arrive identifying if the update perform by joomla is a real update or an upgrade.

If this is an update, that mean that only the joomla PHP code is updated like you have that with joomla 1.5.
Now with Joomla 1.7, when you click on the "update" button, you may have an upgrade without any mention of that.
The upgrade require to apply the DB layout modification in each slave site DB.

Read the user manual chapter 8 that explain again the difference between update and upgrade.

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Re: Future upgrading questions

Posted by TonyGee - 2012/02/22 04:04

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Hi Edwin,

Regarding the slave site upgrade using JMS I have a few additional questions.

I understand that we sometimes do not know if the database tables are changed with an update to an extension so it is probably better to treat all updates like they are upgrades.

I'm trying to understand all the options and limitations to upgrade the slave sites:

Option 1: Install upgrade into master site. If tables are different then the Site Manager tab will display a 'refresh tables' icon and then we need to click into each slave site and re-save the template. The limitation is that this could become difficult if you have hundreds of slave sites and could also cause trouble if you are using dynamic variables in the site template.

Option 2: Access the administration of each slave site and install the extension through the slave site installer. The limitation is that this is very time consuming to access each slave site if you have hundreds of sites.

Option 3: Install the extension into the Master site. Go into the 'Tools' menu and click to update all the slave sites with the extension. The user can select to simply upgrade the extension and the tables (the config in the slave will remain the same) or 'overwrite' the config with the config from the extension in the master. The limitation here is that JMS Multi Sites does not contain all the tables for all extensions so you would need JMS to write some type of custom patch to include your extension in the Tools upgrade functionality.

Have I correctly understood the options above and their limitations?

What is missing from these options?

Have I missed any limitations?

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Re: Future upgrading questions

Posted by edwin2win - 2012/02/22 13:17

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Option 1 to refresh the slave site can not be used for the upgrade as this does not touch the current table that may have a different layout after an upgrade.
The refresh icon just display that you have a difference in the number of tables present in the slave site and that perhaps you need to take an action to update or upgrade. You can use the refresh is this is just an update.

Option 2: is the only option available today for the upgrade and assume that the extension is able to correctly upgrade the MySQL table layout.
Some extension fails to perform the upgrade and some succeed.
So this depends on each extension themselves.

Option 3, When an extension share its content, you can use the JMS Tool menu to uninstall and re-sharing the extension.
If you uninstall an extension with content inside, the uninstall will delete the table and you will lose the content.
When an extension is not defined in JMS, you have to use the option 2.

The main limitation concern the ability of an extension to perform its upgrade correctly. Some (like JomSocial) are doing that very well and they save inside the DB a kind of layout version. Some other extension use the current verion of the extension to compare with the new one to determine the algorithm of the upgrade. In this case, the upgrade is not performed as in a slave site you can only install an extension with the same version number as the master. So identical version number will result by no upgrade performed by the extension.

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Re: Future upgrading questions

Posted by TonyGee - 2012/02/23 06:47

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Hi Edwin,

Option 1: OK I understand this.

Option 2: This is actually causing me some concern. I was aware that we needed to install upgrades directly into each slave site however I had no idea that sometimes this does not work at all.

Q1: I can see this for example with NoNumbers extensions. Is the limitation regarding version numbers imposed by JMS or Joomla? If it is imposed by JMS why can't we override this?

Q2: What are our options if an extension does not upgrade via the slave install? Does this mean JMS needs further development or is this something that will never be overcome?

Q3: Now that we are into Joomla v2.5+ I have noticed that many developers are offering live updates via an API key or via Joomla upgrade (such as Easy Blog, JCE, Rockettheme etc.) Does this make any difference to resolving this issue? Is it safe to use this feature with JMS?

Q4: Have you published a list of extensions that are upgradable/un-upgradeable with JMS?

Q5: Could I COPY the extensions directory in the JMS template instead of using the symbolic link. Would this solve the issue?

Option 3: I still don't understand why the JMS Tools menu cannot be used to install upgrades into slave sites (and propogated to their children) if the extension is not shared. If the extension upgrade is installed in the master why does the 'install from master' not work in the same way as when the extension did not exist in the slave? Why can't JMS install the extension package and let the extension installation work as if it was being re-installed and/or upgraded in the slave directly from the slave admin?

We all understand that there are limitations at the moment but it's important for us to know if there is a path to upgrading the slave sites en mass (and at all) in the future. In the short term we really need to know what extensions to avoid.

Thanks and regards.

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Re: Future upgrading questions

Posted by TonyGee - 2012/03/01 02:26

Hi Edwin, just a quick bump regarding the questions in my previous post.

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Re: Future upgrading questions

Posted by edwin2win - 2012/03/01 12:12

Q1) NoNumber extension use a special installer that is a temporary component that is installed to install the real component later. One the real component is installed, the temporary component is removed.
So it is not possible to re-install the NoNumber extension from a slave site if you don't first install the "installer" component in the master and make sure that it remains present (not deleted).
JMS just verify the joomla version that is present in the installed directory and when the installed directory is deleted (case of NoNumber), it is impossible to retreive the version number.
This extension use an experimental installer that has limitation. So contact NoNumber in case of problem with their installer.

Q2) The concept of JMS is to share the same PHP code of joomla and also of all their extension installed.
If an extension can not be re-installed in a slave site due to specific installer this must be analyzed on case by case as this can be specific to the extension.

Q3) I don't know.

Q4) NO. You must contact each extension to know if they proceed with update or upgrade.
This is not an information that we have. Only the developer of the extension know or perhaps publish in the release not if the new version is an update or an upgrade.

Q5) Copy a directory will not resolve the DB layout issue.
If you copy a directory, this also mean that you will have to maintain the synchronization of the files and folders manually. So we don't think this is a good idea.

Option 3, we don't know all the specific code written by each extension to proceed with the upgrade of the DB layout. Only the extension knows what must be performed to modify the DB layout structure. This is the reason why you have to re-install it into a slave site to let the extension proceed as usual and overwrite the existing PHP code with exactly the same version as previously installed. As the PHP code is re-installed over the current one, JMS just verify that you re-install the same version.

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Re: Future upgrading questions

Posted by TonyGee - 2012/03/02 07:32

Hi Edwin,

OK this is becoming clearer now.

Just to check my understanding:

Situation 1: When we see a message in the JMS Tools that says "Install from Master" (with a minus icon) this means that JMS is installing the extension based on the installation pattern that is understood by JMS (known as the Definition).

In the above, the extension may be defined in JMS but this is only for the first installation of the current extension. If there is a subsequent upgrade to the extension then JMS Tools cannot be used because the Definition in JMS may not apply to the new version of the extension (and the definition would need to be re-analysed and updated in JMS). This is the reason why the Upgrades needs to be installed from the Slave.

Question 1: Is the above understanding correct?

Situation 2: When we see a message in JMS Tools saying "Define From Master" (with an x icon) then this means that JMS does not have an installation definition and does not know how to install the extension so it does not follow any pattern, it just copies the database tables and creates the relevant symbolic links to the files exactly as they exist in the Master.

Question 2: Is the above understanding correct?

Question 3: Would it be possible to store the entire extension installation package in a directory in the Master and use the JMS Tools menu to run the installation in the Slave sites from the original ZIP. So in this case JMS Tools just eliminates the step to login to each slave site. Wouldn't this also eliminate the need to define every extension in JMS (because the installation or upgrade pattern is already contained in the package)?

Question 4: Regarding an upgrade from an extension in a Slave, how would we know if the extension upgrade has failed in the database (due to the situation arising from the version number already upgraded in the master)? Is the only real way to compare the database tables?

Looking forward to hearing your responses.

Kind regards.

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Re: Future upgrading questions

Posted by edwin2win - 2012/03/03 15:11

Q1: Yes JMS tools does NOT update the layout of the MySQL table when the upgrade of an extension require this layout modification.
"Installation from the Master" mean that the MySQL tables present in the master are copied into the slave site.

Q2: "define from master" mean that just the definition of the extension is defined in the slave site to appear in the menu of the slave site but the table required for this extension are NOT created as JMS does NOT know them.
So your understand is INCORRECT.
It does NOT copies the database tables as they are unknown.

Q3: Installation from a directory is something that you can user in the Joomla extension manager. Trying to do that from the JMS tool require a develop that prohibitive as a solution already exists when you login in the back-end of the slave site.

Q4: I know it is not easy to know if an extension perfor an update or an upgrade as this is not an information frequently published by the author of the extensions.
Personnally, before proceeding to the installation of an update, I always test it on a local environment where I have duplicated the production environment.
So that I can see if the extension has proceed with an update or an upgrade when I compare the DB table structures.
So when you have a "live" environment, we thing that test the update/upgrade offline is a good practice.
This is the method that we are using for our websites.

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Re: Future upgrading questions

Posted by TonyGee - 2012/03/05 02:00

Hi Edwin,

Thanks for your detailed responses.

Regarding Q3, I am interested to explore the possibility of installing the extension ZIP package from the Master Tools Menu directly into the slave sites (and propogating to children).

Do you agree that this would save significant time? We could avoid logging into each slave site to access the extension manager - especially if we have hundreds of slave sites.

Can you please confirm if this is possible via further development of JMS?

What are the key issues that would stop this feature? (I know we would first need to test each extension package on a staging environment to ensure the upgrade works however after this process are there any other issues?)

Thanks and regards.

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Re: Future upgrading questions
Posted by edwin2win - 2012/03/05 10:18

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I don't see how you will be able to use the Zip for the installation in the slave site without to login in the back-end of the slave site.

To perform an upgrade, you need that the standard joomla installer is called from the slave site to let execute the specific PHP code from the slave site.

So I don't see how you can do that otherwise.

For me, what you are describing should not work.
All I can suggest is that you test your idea.

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Re: Future upgrading questions
Posted by TonyGee - 2012/03/05 10:32

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Hi Edwin,

I've been looking into the Joomlart Extension Manager. It seems to contain a number of features that would be required for my suggestion (i.e. a repository for extension packages and also a function to compare version to see what has been updated).

Have you studied the Joomlart Extension Manager component to see if it can help enhance JMS?

Perhaps there is a way to adapt it's functions to assist with the slave site upgrade process.

Please let me know what you think about this.

Kind regards.

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Re: Future upgrading questions
Posted by edwin2win - 2012/03/05 11:31

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The Zip contain PHP code that normally is already updated in your master.
The problem of the Upgrade is the DB table layout and content that can be modified.

I don't think that a tool that compare the files on the disk will also be able to compare the table structure of different website and also read the content of each table to discover what should be added depending on each extension.

So, I am still convinced that this will not work without re-installing the extension in the slave site as you need to call the specific code written by the authors of the extensions.

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Re: Future upgrading questions

Posted by TonyGee - 2012/03/07 08:50

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Ok thanks for that explanation.

I have another 2 minor questions:

Q1: When we have an x icon ('Define from Master') can we manually install the extension into the slave site directly via the slave admin or do we need you to include the definition in JMS?

Q2: Regarding Q1 above, if we can install this directly into the slave via the slave admin are there any additional limitations that we should be aware of?

Thanks and regards.

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Re: Future upgrading questions

Posted by edwin2win - 2012/03/07 18:59

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Q1) When this is for a component, you have to re-install the extension in the slave site and if you want to be able to install it inside the JMS tool, you can to send me the package in the attachement of an email to add its definition in JMS.

If this is a module or a plugin, in most case, you can define it because this suppose that you have a component that had installed the MySQL table required for the module or plugin.

Q2) If you are able to re-install in a slave, this should be OK

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