Akeeba Release System User's Guide

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Abstract

This book covers the use of the Akeeba Release System (a.k.a. ARS) download directory for Joomla!™-powered web sites.

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Chapter 1. Introduction

1. Introducing Akeeba Release System

Akeeba Release System (or ARS for short) is a download manager component quite different than its competition. It is primarily geared towards developers who want to disseminate their software products to their clients, but can also be used as a generic downloads manager. Its key features are:

- Joomla! 1.5 and 1.6 ready.

- **Full support for Amazon S3**, including the ability to manage (upload, delete, create directories) your files stored on S3 from within the component

- Chameleon skinning; the front-end automatically matches its output to your template, using module chrome.

- Sensible three-level organization of your downloads (package, version, files).

- The best out-of-the box SEF URLs, without requiring a SEF component.

- Excellent performance; before its first public beta it has already served one million downloads with a rate of 200,000 downloads per day. Smart caching will use Joomla!'s caching options to intelligently cache your public download pages, saving tons of resources on busy sites.

- Integration with AMBRA.Subscriptions and Joomla! 1.6 Access Levels for limiting access to downloads only to specific subscribers.

- Integration with JoomlaCode.org; you can directly import download items from it.

- Allows you to add files either stored on any directory under your site's root -even a different one per package!- or directly link to externally hosted files without revealing their URL to your visitors.

- Automatic determination of th file size and MD5 and SHA1 hashes of all files you add to it.

- Helps you keep it organized! You can create subdirectories, upload, replace and delete files from the component itself.

- Automatic item descriptions. Tired of typing the same descriptions over and over? Stop typing! ARS can do it for you.

- Update streams. Offer updates to your software in two formats: INI files easily usable by any and all programming languages or automatic creation of **Joomla! 1.6 or later XML extension update streams**. That's right! As soon as you publish a new version, all your clients using Joomla! 1.6 or later will be able to automatically upgrade to it. No extra file creation necessary.

- Allows for automatic updates of restricted downloads. You can authenticate automatic downloads of restricted access items by passing the username and password or a secure Download ID to the URL. This is how we allow you to do 1-click live updates of Akeeba Backup Professional and Admin Tools Professional!

- Automatic RSS and Atom feed creation.

- Automatic handling of release notes separately from your generic release description.

- All texts are edited using Joomla!'s WYSIWYG editor and support content plugins. Need to include an image gallery to your description? No problem!

- Latest releases overview for one-stop-shop presentation of your newest downloads on a single page.

- Download logging like no other. Even the referrer, IP address and country (using the free MaxMind GeoIP database) is logged. Know who downloaded when and what.

- BleedingEdge™ repositories support. Just upload files to your server by FTP and ARS will automatically create new releases, download items and publish them, while refreshing their update stream. In other words, 0-click releases.

- Full integration of Amazon S3, including a file manager for all of your Amazon S3-stored files, right out of the box!

- GPL v3 software. We value your Freedom of choice and transparency in our code.

Important

While we provide the component free of charge, we do not provide support for free. If you're interested in receiving support for ARS please consider an AkeebaBackup.com subscription to the "SUPPORT" or "AKEEBADELUXE" levels.

Note

This product includes GeoLite data created by MaxMind, available from http://www.maxmind.com/.

2. Server environment requirements

In order to work, Akeeba Release System requires the following server software environment:

- Joomla!™ and PHP version compatibilities are detailed in our Version Compatibility matrix [https://www.akeebabackup.com/compatibility.html].

- MySQL 5.0 or greater.

- Minimum 16Mb of PHP `memory_limit`. More is better.

- The hash PHP module should be enabled for trouble-free operation.

- The cURL PHP module or URL fopen() wrappers must be enabled for automatic determination of MD5 and SHA1 hashes of remotely stored files and importing files from JoomlaCode.org.

Chapter 2. Installation, updates and upgrades

1. Installing Akeeba Release System

Installing Akeeba Release System is no different than installing any other Joomla!™ extension on your site. You can read the complete instructions for installing Joomla!™ extensions on the official help page [http://help.joomla.org/content/view/1476/235/]. Throughout this chapter we assume that you are familiar with these instructions and we will not duplicate them.

1.1. Getting the installation packages

You can download the latest installation packages by visiting our site at http://www.akeebabackup.com. Just click on the Download, Official Releases menu item on the top menu of our site. Then click on Akeeba Release System. The releases are listed with the newest release always on top, using ARS itself to present them! Click on it to view the files. Click on the "Akeeba Release System" item to download the ZIP installation package.

> **Note**
>
> Do not forget to download the documentation PDF file or read it online. As we do not provide support free of charge this is your best bet in solving your problems if you do not have a SUPPORT or AKEEBAPRO subscription.

The installation package can be installed on both Joomla! 1.5 and Joomla! 1.6 sites. It can also be used to upgrade Akeeba Release System; just install it *without* uninstalling the previous release.

In any case, do not extract the ZIP files yet!

1.2. Installing the component

Log in to your site's administrator section. Click on the Extensions, Install/Uninstall (Joomla! 1.5) or Extensions, Manage (Joomla! 1.6 users) link on the top menu. In this page, locate the Browse button in the Upload Package File area. Locate the installation ZIP file you had previously downloaded and select it. Back to the page, click on the Upload File & Install button. After a short while, Joomla!™ will tell you that the component has been installed.

1.2.1. Manual installation

Sometimes Joomla!™ is unable to properly extract ZIP archives due to technical limitations on your server. In this case, you can follow a manual installation procedure.

First, you have to extract the installation ZIP file in a subdirectory named `akeeba` on your local PC. Then, upload the entire subdirectory inside your site's temporary directory. At this point, there should be a subdirectory named `akeeba` inside your site's temporary directory which contains all of the ZIP package's files.

If you are unsure where your site's temporary directory is located, you can look it up by going to the Global Configuration, click on the Server tab and take a look at the Path to Temp-folder setting. The default setting is the `tmp` directory under your site's root. Rarely, especially on automated installations using Fantastico, this might have been assigned the system-wide `/tmp` directory. In this case, please consult your host for instructions on how to upload files inside this directory, or about changing your Joomla!™ temporary directory back to the default location and making it writable.

Assuming that you are past this uploading step, click on the Extensions, Install/Uninstall (Joomla! 1.5) or Extensions, Manage (Joomla! 1.6 users) link on the top menu. In this page, locate the Install Directory edit box in the Install from Directory area. It is already filled in with the absolute path to your temporary directory, for example `/var/www/joomla/tmp`. Please append `/akeeba` to it. As per our example, it should look something like `/var/www/joomla/tmp/akeeba`. Then, click on the Install button.

If you still can't install Akeeba Release System and you are receiving messages regarding unwritable directories, inability to move files or other similar file system related error messages, please do not ask us for support. These errors stem from your site set up and can best be resolved by asking for help in the official Joomla!™ forums [http://forum.joomla.org].

2. Updating to the latest version

Checking for the latest version and upgrading

You can easily check for the latest published version of the ARS component by visiting http://www.akeebabackup.com/latest. The page lists the version and release date of the latest ARS release. You can check it against the data which appear on the bottom of your ARS Control Panel. If your release is out of date, simply click on the Download link to download the install package of the latest release to your PC.

Updating ARS to the latest version is by no means different than installing the component. You do not have to uninstall the previous version; in fact, you are discouraged from doing so. Simply follow the installation instructions so as to install the latest ARS version over the existing ARS installation. That's all! All your settings are preserved.

Live update

There is also an alternate update path, if your server supports it. It is called the "Live Update" feature. Whenever you visit the ARS Control Panel, it will automatically check for the existence of an updated version and it will notify you. You can see the notification button on the bottom of the left-hand section of the Control Panel page. Clicking on the notification allows you to perform a live update without further interaction. Do note that if your server is protected by a firewall you'll have to enable port 80 and 443 TCP traffic to www.akeebabackup.com and joomlacode.org for this feature to work properly.

Chapter 3. Using the back-end

The bulk of ARS is in its back-end. This is where you will be setting up your repositories, update streams, view your log files, upload files and more. Since you are going to spend most of your time looking at the back-end, we have done our best to streamline your administrative experience. Our goal is to have you spend as little time as humanly possible while publishing files. Your time is better spent creating the files, be it code, documentation, your dissertation, your weekly e-magazine or anything which can be downloaded.

1. Understanding the structure of a repository

Akeeba Release System is designed as a dual-repository, three-level system. Quite fancy wording and I'm sure you didn't understand anything. Let's break it down and understand how an ARS repository is structured.

The repository is logically separated to two sub-repositories. By default, they are named "Official Releases" and "Development Releases". Their only difference is the way items are added to them. In "Official Releases" you have to manually go to the back-end, enter an existing "category", create a new "release" and start uploading "items" to it, then publish the lot for your site visitors to see and download. In "Development Releases" you do not have to use your site's back-end. All you need to do is to use FTP to create a new directory, which automatically creates and publishes a new "release", and upload files, which automatically creates and publishes a new "item". The separation is only logical. If you wish to do so, you can display both sub-repositories as a single repository.

The repository follows the standard convention of Joomla! 1.0 and 1.5 article categorization. Each repository can have one or more "categories". Each category can have one or more "releases". Each release can have one or more "items". The "categories" are the top organization level of your data. Usually you have to create one category per software you want to publish. If you are not interested in publishing software, create one category per general file type. Think of them as article Sections.

Each category has one more "releases". Think of a release as a group of files belonging to the same chronological order. Each release is supposed to supersede the directly previous release (the one with a higher ordering number than itself).

Finally, "items" are what your visitors download. We chose to name them "items" instead of "files" because they can either be physical files stored on your server or links to a remote resource served from a different web server.

Practical example: Software distribution

This is the kind of repositories ARS excels at. Create one category per software you want to publish. Let's say you produce an application named "Kitten Finder" and a Joomla! component named "Kitten.me". Each one of them is a category in ARS. Create one release per version of the software. For instance, "Kitten Finder" has released versions 1.0.b1 (a beta release) and 1.0 stable. Each one of the versions is a release in ARS. Each downloadable file is an ARS item. For example, you may have an installer of Kitten Finder for Windows, another for Linux, a third one for Mac OS X, a PDF with instructions and so on. Each file belonging to specific version of the application is an item in ARS.

In order to allow your visitors to browse the entirety of your repository, you will have to create a menu item to the full repository.

Practical example: Community site

In this case, you will be using ARS as a generic download system, much like DOCman or PhocaDownloads. Do the following mind mapping:

• Section - ARS Category

- Category - ARS Release

- File - ARS Item

Now, let's say you want to publish your weekly newsletter in PDF format. Create an ARS category item named "Newsletter". For each new issue, create an ARS release named after the date of publication, e.g. "January 2011", "February 2011" and so on inside the "Newsletter" category. Finally, create a single ARS item per issue so that your visitors can download the PDF file of your newsletter.

In order to reduce the number of clicks required by your visitors to get to the desired download, just create a menu item to the specific Category you created. There's no need to create a link to the full repository.

Practical example: A personal site / blog

This is the most peculiar download repository setup. Usually, such users only need to publish a bunch of files and track download stats. The easy way to do that is to create an ARS category (the name is indifferent), an ARS release under it (use something descriptive of your site) and just publish items in that single release. In order to save your visitors some clicks, you can create a menu item directly to this sole release, so that nothing but your files gets listed.

2. Basic: categories, releases, items

2.1. Category management

In order to manage the categories in ARS, just click on the Categories button on the Control Panel page, or the Categories link right below the component's name in any ARS page. A standard Joomla! administrator list page appears. Do note that the search box below the Title field will filter categories based on their title or description.

You can quickly make a copy of a category by selecting its checkbox on the left-hand column and clicking the Copy button on the toolbar. The releases and items belonging to that category will not be copied along. Deleting a category by selecting it and clicking on the Delete button will remove all releases and items associated with that category. Beware! You will not be asked to confirm this choice. Deleting a category is an irreversible change. If you are not sure, unpublish instead of removing the category. You can edit a category either by clicking on its name in the list, or selecting it and clicking on the Edit button. You can add one or more new categories by clicking on the New button.

Editing or adding a category

The category editor page consists of the following fields:

Title	This is the title of the category displayed to your site's visitors
Alias	This is the alias (slug) appended to the URL pointing to that category's page. It's best to keep it short and only use lowercase unaccented Latin letters (a-z), numbers (0-9), dashes and underscores. Anything else may behave oddly.
Directory Type	You have two options. In a **Normal** directory you have to manually create releases and items. In a **BleedingEdge** directory all subdirectories created in the selected Files Directory will result into new releases being created and published without your intervention. Similarly, files uploaded in the subdirectories will be automatically turned into items and published.
Files Directory	This is the path to a directory which contains the files to be published in this category's releases. The paths are given relative to your site's root. This field is mandatory. You can not create a category without assigning it a files directory. You can use the same directory in multiple releases.

You can use directories in completely different base folders on each release. If a directory doesn't already exists it will not be created, you will see an error message and your category won't be created.

Please note that ARS uses Joomla!'s API to filter directories. This limits you to using directories under your site's root. If you want to protect your files from direct web access, please create a .htaccess file with the following content inside your files directory:

```
order deny, allow
deny from all
```

Published   Should it be visible to your users? Set to off to hide the category from view.

Access   The Joomla! access level / view level to apply to the release. In Joomla! 1.5 you only have a choice between public, registered and special. In Joomla! 1.6 you can create custom view levels, effectively choosing which user groups should be granted access.

AMBRA Groups   If you have AMBRA.Subscriptions from Dioscouri Design installed, you will be presented with a list of subscription groups. Tick the boxes on the subscription groups you want to be granted access to this category.

Description   Use the WYSIWYG editor to type in a description to be displayed for this category. You can use plugins freely.

Please note that if a category is unavailable to a particular user, i.e. due to Published, Access or AMBRA Groups settings, the user will not see the category listed in the front-end and will be unable to access the category, its releases or download its items.

Clicking on the Save & New button will save the category and immediately let you create a new category.

2.2. Release management

Important

You can edit releases even if the category is unpublished, unlike DOCman.

In order to manage the releases in ARS, just click on the Releases button on the Control Panel page, or the Releases link right below the component's name in any ARS page. A standard Joomla! administrator list page appears. Do note that the search box below the Title field will filter categories based on their title or description.

You can quickly make a copy of a release by selecting its checkbox on the left-hand column and clicking the Copy button on the toolbar. The items belonging to that release will be copied along. The copied release will be unpublished by default and have an ordering of 0. Deleting a release by selecting it and clicking on the Delete button will remove all items associated with that release. Beware! You will not be asked to confirm this choice. Deleting a release is an irreversible change. If you are not sure, unpublish instead of removing the release. You can edit a release either by clicking on its name (the Version column) in the list, or selecting it and clicking on the Edit button. You can add one or more new releases by clicking on the New button. You can edit the category the release is in by clicking on the name of the category in the Category column.

Editing or adding a release

The release editor page consists of the following fields:

Category   Choose the category where the release will be placed in.

Tip

If you had filtered the releases list based on a category, that category will be automatically selected in this box! Filter the list, save some time.

Version
Type in the title of this release. Since ARS is optimised for software delivery, we call this field Version, but you may type in anything you want, not just numbers.

Alias
This is the alias (slug) appended to the URL pointing to that release's page. It's best to keep it short and only use lowercase unaccented Latin letters (a-z), numbers (0-9), dashes and underscores. Anything else may behave oddly.

Maturity
If you are using ARS for software distribution, select the maturity level of this release. The possible options are Alpha, Beta, Release Candidate and Stable.

Hits
How many times the release page has been displayed. You can use this field to alter that number. Do note that you do not need to change it on copied releases; copies will automatically receive a Hits number of zero.

Published
Should it be visible to your users? Set to off to hide the category from view.

Access
The Joomla! access level / view level to apply to the release. In Joomla! 1.5 you only have a choice between public, registered and special. In Joomla! 1.6 you can create custom view levels, effectively choosing which user groups should be granted access.

AMBRA Groups
If you have AMBRA.Subscriptions from Dioscouri Design installed, you will be presented with a list of subscription groups. Tick the boxes on the subscription groups you want to be granted access to this release.

Description
Use the WYSIWYG editor to type in a description to be displayed for this release. You can use plugins freely.

Please note that if a release is unavailable to a particular user, i.e. due to Published, Access or AMBRA Groups settings, the user will not see the release listed in the front-end and will be unable to download its items.

Clicking on the Save & New button will save the release and immediately let you create a new category.

2.3. Item management

Important

You can edit items even if the category or release they are in is unpublished, unlike DOCman.

In order to manage the items in ARS, just click on the Items button on the Control Panel page, or the Items link right below the component's name in any ARS page. A standard Joomla! administrator list page appears.

You can quickly make a copy of an item by selecting its checkbox on the left-hand column and clicking the Copy button on the toolbar. The copied item will be unpublished by default and have an ordering of 0. Deleting an item is an irreversible change. If you are not sure, unpublish instead of removing the item. You can edit an item either by clicking on its name (the Title column) in the list, or selecting it and clicking on the Edit button. You can add one or more new items by clicking on the New button. You can edit the category the item is in by clicking on the name of the category in the Category column. You can edit the release the item is in by clicking the name of the release in the Release column.

Editing or adding a release

The release editor page consists of the following fields:

Release
Choose the release where the item will be placed in.

> ## Tip
>
> If you had filtered the items list using a specific release, that release will be automatically selected in this field! Filter the list, save some time.

Title
The title of the item, used to display it to your users. If you are using Automatic Descriptions you don't have to fill it in.

Alias
This is the alias (slug) appended to the URL pointing to that category's page. It's best to keep it short and only use lowercase unaccented Latin letters (a-z), numbers (0-9), dashes and underscores. Anything else may behave oddly.

> ## Tip
>
> Leave it blank. As soon as you select a file or type in a link, ARS will automatically fill it in before your eyes. Didn't I already mention that ARS is designed to *save you lots of time*? But please note that ARS will also include the extension of the file (e.g. .zip) in the alias. Unless you've modified your .htaccess to redirect all extensions to Joomla!, this might cause 404 errors. In this case, just edit the automatic alias, removing the dot.

Type
What kind of download is this. File items allow your visitors to download files stored on your server, the most common case of downloads. However, Link items allow you to link to a file or even a web page by its URL. You can use it to let your visitors download files hosted on external sites (e.g. your friend's site, JoomlaCode.org, SourceForge, Amazon S3, DropBox, Windows Live SkyDrive, RapidShare, MegaUpload etc) or redirect visitors to an external page. Using the Link type will not reveal the URL of the external item to your visitors until they proceed with downloading the item. Furthermore, all download links are marked as no-follow and no-index, so that search engines do not reveal the URL to the linked file/page.

File Name
If you chose the File type, this displays a drop down of files found in the category's Files Directory and all of its subdirectories. Yes, that list could be very long, so we are cheating: we only show you the files which have not been already used in other File items on any category. So, instead of having to scroll through a never ending list of files you will only see the files you haven't already used. That's what we call a clever repository! Oh, yes... As soon as you choose a file, the Alias will be filled in if and only if it was empty.

URL
If you chose the Link type, type in the full URL to the file or web page you want to link to. Oh, yes... As soon as you click anywhere outside this field, the Alias will be filled in automatically based on the contents of the URL field if and only if you had an empty alias.

File size
Type in the file size in bytes. Or don't. If you leave it empty, ARS will try to determine this automatically. In the case of Link items, it will try to download the linked file.

MD5 Signature
Type in the MD5 hash of the file. Or don't. If you leave it empty, ARS will try to determine this automatically. In the case of Link items, it will try to download the linked file.

SHA1 Signature
Type in the SHA1 hash of the file. Or don't. If you leave it empty, ARS will try to determine this automatically. In the case of Link items, it will try to download the linked file.

Hits
How many times the item has been downloaded. You can use this field to alter that number. Do note that you do not need to change it on copied items; copies will automatically receive a Hits number of zero.

Published
Should it be visible to your users? Set to off to hide the category from view.

Access   The Joomla! access level / view level to apply to the item. In Joomla! 1.5 you only have a choice
                between public, registered and special. In Joomla! 1.6 you can create custom view levels, effec-
                tively choosing which user groups should be granted access.

AMBRA Groups   If you have AMBRA.Subscriptions from Dioscouri Design installed, you will be presented with
                a list of subscription groups. Tick the boxes on the subscription groups you want to be granted
                access to this item.

Description   Use the WYSIWYG editor to type in a description to be displayed for this item. You can use
                plugins freely.

Please note that if an item is unavailable to a particular user, i.e. due to Published, Access or AMBRA Groups settings,
the user will not see the item listed in the front-end page showing the release and will also be unable to download it.

Clicking on the Save & New button will save the item and immediately let you create a new category.

3. Intermediate: file management, JoomlaCode integration and logs

3.1. Uploading and managing files

ARS comes with an integrated system to handle file uploads, manage files and create sub-directories. It is accessible
from ARS Control Panel page by clicking on the Upload and Manage Files button.

When you launch that feature, it asks you to select a category. Select a category from the drop-down. This step is
required for ARS to know which directory it should operate on. Remember that each category is linked with one Files
Directory. Upon selecting a category, the page reloads with the full interface.

Right below the category selection area you will find two panes. The left hand pane contains a list of folders. You
can create a new folder by typing a name in the box and clicking on the New folder button. Do note that the Joomla!
API will convert dots and spaces to underscores and turn everything to lowercase characters. You can click on any
directory to go "inside" it. The right hand pane contains a list of file. The name and size of each file is displayed. Click
on the trashcan icon to delete the file.

Warning

ARS will not check if the file you delete belongs to an active item. It is perfectly possible that you end up
deleting a file used by an active item, causing problems to users who try to download that item.

The bottom part of the page is the upload form. It uses Joomla!'s upload feature. Do note that your file will be uploaded
to the the directory you are currently viewing.

Important

You can only upload one file at a time

3.2. JoomlaCode.org integration

Having primarily developers of free Joomla! extensions in mind, we are providing an integration with JoomlaCode.org,
the official project and file hosting facility of the Joomla! project. The idea is that if you produce free Joomla! software

you most likely want JoomlaCode.org to host your downloads (free bandwidth!) and you don't really fancy having to manually copy links from JoomlaCode.org to ARS. We have semi-automated this procedure for you.

Start by clicking on the Import from JoomlaCode FRS button in ARS Control Panel page. In the new page, you will have to select an ARS release where you want to import the file links into. Select it from the drop-down.

In the JoomlaCode project tag text box enter the shorthand name of your project in JoomlaCode.org. If you are not sure, you can find that out from your JoomlaCode.org URL. Visit your project's page and you'll see a URL in your address bar similar to `http://joomlacode.org/gf/project/example`. That last part of the URL (i.e. `example`) is what you need to type in the JoomlaCode project tag text box in ARS. Then press the Tab key or click on Get packages.

A list of JoomlaCode packages appears below. Select the package which holds your releases in the Select package drop-down list and press the Tab key or click on Get Releases.

A list of JoomlaCode releases appears below. Select the release which holds your files in the Select release drop-down list and press the Tab key or click on Get Files.

A list of files appears below. Click on each file to create a new item linking to it in the selected ARS release. All items are unpublished by default. When you are done importing files from JoomlaCode, simply click on the Items link just below the toolbar to get back to the ARS Items page where you can publish your files.

Tip

If you are using the Automatic Descriptions feature, the name of the item, its description and all of its fields will be automatically populated. This means that all you have to do is to publish it and you're done.

3.3. Viewing the logs

ARS keeps detailed logs of all download attempts of all items. In order to view you logs, please click on the Download Logs button on the component's Control Panel page. This takes you to the log viewer page.

The top row of the list contains the filters. Below the Item column you can find three filters:

Category   Select a category from the drop-down box. When you select a category, the release drop-down will also be filtered and show releases belonging to that category.

Release   Select a release from the drop-down box.

The search box   Type in a part of an item's title so as to filter the list by it.

Below the User column you will find a search box. Type in a part of the user's full name, username or email address to filter the list. There are also two search boxes below the Referer and IP Address columns which work in a similar fashion should you need to filter the list by the HTTP referer or IP address respectively. Finally, you have Country and Authorized drop downs.

The columns which appear in the list are:

Item   Displays the item title (top row) and the category and release (bottom row) pertaining to this download record

User   Displays the user full name (top row) and username and email address (bottom row) of the user who tried to download this item. Download attempts by guest (not logged in) users are displayed as a single bullet.

Accessed   The date and time of the download attempt. Do note that this is the server local time, which is not necessarily the same as your timezone.

Referer	The HTTP referer set by the user's download client. It only makes sense if the download was initiated by a browser. This allows you to detect hot-linked files, i.e. people linking directly to your download item from their own sites.
IP Address	The IP address of the user who attempted to download the item.
Country	The country of origin of the particular IP address recorded. IP to country conversion is performed using a local copy of the (free version of) MaxMind's GeoIP database. This documentation contains instructions on updating it.
Authorized	If the user was allowed to download the item, it is a green check. If the user was denied the download it is marked as a white X inside a red circle. Download are denied if the category, release or item are unpublished, or if the view level / AMBRA group settings of a particular category, release or item indicate that a user should be denied access.

You can short by any column by simply clicking on its title.

Note

This product includes GeoLite data created by MaxMind, available from http://www.maxmind.com/.

4. Advanced: update streams, automatic descriptions, Amazon S3

One of the most distinctive features of ARS is that it is designed with software delivery in mind. Two of the most common problems in that arena is providing updates to your clients and having to type in the same descriptions over and over again. ARS solves both problems. It can automatically produce update streams in a generic and reusable INI format, or automatically produce Joomla! 1.6 XML update streams for use with any Joomla! 1.6 extension. Then, instead of having to manually type in the title and description of files, you can set up automatic descriptions so that ARS can type in this information for you.

4.1. Setting up update streams

ARS comes with integrated update stream provisioning. Update streams are, in short, a machine-readable representation of your repository. They can be used by remote clients to figure out if there is an update available and optionally ask the user to download it and install it. ARS can serve two types of update streams:

INI format	This is a custom format, designed with portability in mind. The update information is rendered as a standard INI format text file. The downside of this format is that only the latest version is displayed in the stream.
XML format	Joomla! 1.6 comes with an extension update manager. In order for it to work, it requires developers to supply update information in a custom XML format. There are actually three type of XML files Joomla! 1.6 understands. The "extensionset" document serves as the master update stream. It contains links to one or more repositories, one for each extension type Joomla! 1.6 understands, i.e. components, plugins, modules, libraries, packages, templates and files. The second form of an "extensionset" document is the master index of extensions of a specific type (called "category") known to this server, e.g. a list of components. Each item on that list points to an "updates" XML document. This third and final XML format contains the history of an extension. It tells us the version history, details about the extension, links to an information page and, most importantly, tells us where to download the extension from.

This is an overly complex system and maintaining such files manually can be a drag. ARS handles all three types of documents for you, automatically. In order to add updates support to your Joomla! 1.6 extension, all you have to do is to add the following lines just before the closing </install> tag in your extension's manifest XML file:

```
<updateservers>
    <server type="extension" priority="1"
        name="Whatever you want to call it"><![CDATA[link_to_your_update_stream
</updateservers>
```

The name attribute can be anything you want. Usually it should be something like "*Name Of Extension* Updates", e.g. "Akeeba Backup Core Updates". The link in the CDATA section is the XML link provided by ARS.

Important

Since Joomla! 1.7.0, you URL must end with `.xml` for Joomla! to be able to use it. This means that the long, non-SEF form of the URL, e.g. `http://www.example.com/index.php?option=com_ars&view=update&task=stream&format=xml&id=1` mentioned in the XML link on the Update Streams page will not work. Just append `&dummy=extension.xml` to it and it will work, e.g. `http://www.example.com/index.php?option=com_ars&view=update&task=stream&format=xml&id=1&dummy=extension.xml` for the example above. ARS will do that automatically for you when generating the Master Joomla! 1.6 XML Update stream.

Warning

You MUST NOT leave a space or put a newline between the server open/close tag and its contents. Anything between those tags, including newlines and spaces, are considered part of the update URL and will cause problems with Joomla!'s integrated update system.

Note

When using the master XML stream, not the extension's versions stream, you should use type="collection" instead of type="extension"

Tip

It is not necessary to use CDATA if you escape ampersands (&) to & as per the XML standard.

In order to set up update streams, please click on the Update Streams button in ARS Control Panel.

On the very top of the page you will find a link to your master Joomla! 1.6 update stream (the first type of "extensionset" XML document). You can use that link in your Joomla! 1.6 extensions' XML files.

The grid below is a standard Joomla! administrator table. Clicking on a stream name allows you to edit it. The most important column is the Links column. It provides direct links to the publicly accessible formats of your update stream. The INI link will take you to the INI format update stream, which is necessary for Live Update to work. More information on including Live Update in your components can be found in a later section of this documentation. The XML link will take you to the Joomla! 1.6 XML "update" document for that stream. This is the XML file you should in extension manifest files, inside the CDATA section mentioned above.

Editing or adding an update stream

Editing or adding an update stream will present you with an editor page. Please note that update streams look for similarly named files (using a pattern) across all releases inside a specific category. You are called to provide this relationship in this page. The fields you have to fill in are:

Stream Name
A name for the update stream. It can be anything you want and is only used in the Joomla! 1.6 XML format streams.

Warning

This is what Joomla! will also display in the Extension Name when it lists new available updates.

Alias
Used to construct the URL in the front-end. Keep it short and sweet.

Extension type
This is used by the Joomla! 1.6 XML format update stream. If you don't care about Joomla! 1.6 or it's not a Joomla! 1.6 extension, you'd better use "Files".

Category
The category where we're going to look for updates.

Note

You can have more than one update streams per category. However, a single update stream can only look inside a single category.

Package naming pattern
An update stream looks for files following a specific naming convention. You have to supply a "shell pattern" in here. This is fancy wording for saying that you provide a filename and use a single question mark (?) to match any single character or a single start (*) to match any number of characters. It's what you already use on your operating system! Only items whose File or URL field matches this pattern will be included in the update stream.

For instance, all Akeeba Backup Core installation packages are named com_akeeba-VERSION-NUMBER-core.zip, where only VERSIONNUMBER changes, i.e. com_akeeba-3.1-core.zip, com_akeeba-3.1.5-core.zip etc. This leads us to a naming pattern of `com_akeeba-*-core.zip` and that's what I would use.

Element
This is required for Joomla! 1.6 update streams. It should contain the name of your extension, e.g. com_something, mod_something, plg_something etc.

For example, Akeeba Backup Core installs in the com_akeeba directory. This is the element name: com_akeeba

Site area (client_id)
Since Joomla! 1.7.0, all update streams must indicate the site area (frontend or backend) the extension applies to. For component, library and file extensions you must always use "Backend". For plugins, modules and templates select "Frontend" or "Backend" depending on whether your extension applies to the frontend or the backend of your clients' sites respectively.

This is only required for XML update streams. If you are only interested in providing INI update streams, e.g. for desktop software, simply ignore this option.

Folder (for plug-ins)
For all extension types except plugins, leave this blank. For plugins, this must be set to the plugin type. For example, if you have a system plugin, type in `system` in this box. If you have a content plugin, type in `content` in this box. You get the idea! This is the name of the plugins folder's subdirectory where the plugin is being installed to.

This is only required for XML update streams. If you are only interested in providing INI update streams, e.g. for desktop software, simply ignore this option.

Published   Well, I guess you know what this means! Just note that unpublished streams result in empty pages

4.1.1. The INI update format

The INI update format was designed with portability in mind. It is a deliberately simple format so that it can be parsed by PHP, as well as a plethora of programming languages such as Ruby, Python, Delphi, Pascal, C/C++, C#, VB.NET, or even Visual Basic for Applications (if you consider *that* a programming language!). A typical stream looks like this:

```
; Live Update provision file
software="Foo Bar"
version="1.2.3"
link="http://www.example.com/downloads/foobar-1.2.3.zip.html"
date="2010-10-10"
```

The first line is a comment and is always there. It allow you to figure out if the rest of the file is a valid INI update stream.

The software key provide the name of the software item. The version key provides the latest version published. The link key provides a download link to the item linked to that update stream. Do note that due to Joomla!'s routing the extension of the file might always be .html! **Do not** trust the extension to tell you about the file type. When you initiate the download, ARS will set the correct MIME type in the HTTP headers. You should trust that header instead to figure out the real file type. Finally, the date key gives you the release date of the latest version in YYYY-MM-DD format.

4.2. Automatic item descriptions

Most often than not, when dealing with software distribution, you need to provide the same description and title to similarly named files. For example, if you have an installable package of your software you may want to give short installation instructions and a link to the thorough installation guide in its description. Most likely, it will also have a standard title, e.g. "com_foobar for Joomla! 1.5". Traditionally, this is dealt with by copying the release items from one release to the next. However, this is the least convenient way to do it, as you have to copy items, edit them one by one and change the file or URL they point to. That takes time. What's better is to have your download system somehow "know" the title and description of each download item. This is even more important with zero-click item publishing like what ARS does with its BleedingEdge-type repositories. So, ARS does exactly that: it knows the title and description of any file, with its Automatic Item Descriptions feature.

Launch this feature by using the Automatic Item Descriptions button in ARS Control Panel. You are presented with a standard Joomla! administration table. Editing an item presents you with an editor form, containing the following fields:

Category   The category where this automatic item description will be applied to

Package name   The file naming pattern of the files which will be handled by this automatic description. For exam-
pattern   ple, if you type in com_foobar-*.zip all items whose File or URL field matches this pattern
                  (e.g. com_foobar-1.0.zip, com_foobar-extras-1.0.zip) will be assigned the Title and Description
                  provided below if these fields are not provided when you create them.

Title   The title to be applied to download items matching this automatic description's pattern rule.

Published   If you want to temporarily disable an automatic description, set Published to No.

Description   The description to be applied to download items matching this automatic description's pattern rule.

You can use Save & New to mass-create many Automatic Item Description records one after the other.

4.3. Amazon S3 integration

Akeeba Release System fully support Amazon S3 for storing your download items and serving them directly from there. It also supports Bleeding Edge categories hosted on Amazon S3.

We chose to integrate Amazon S3 with ARS because it is the most reputable and very low cost cloud storage provider. Using S3 to store your download items instead of your server's filesystem means that you don't consume your server's bandwidth with your downloads. Instead, everything is diverted to S3 where bandwidth is generally much cheaper than what hosting providers offer. Moreover, your files are always privately stored and can not be accessed by unauthorised users, even if they successfully guess the correct path to the files, something which is much harder to implement on a regular web server.

Configuring the Amazon S3 integration

Before you can use Amazon S3 with ARS, you have to configure it. Go to the main page (Control Panel) of the component and click on the Parameters (Joomla! 1.5) or Options (Joomla! 1.6 and later). You will see the Amazon S3 integration area in the configuration page. The available options are:

Access Key
: This is the "Access Key" you have created in your Amazon S3 account page. In order to retrieve it, please go to http://aws.amazon.com/s3/ and click on Account, Security Credentials. In the Access Credentials area, click on the Access Keys tab. You will see your Access Key ID there. Copy it and paste it in the Access Key field of ARS' configuration.

Secret Key
: This is the "Secret Key" which corresponds to your Amazon S3 Access Key. In the same page as the the Access Key, find your Access Key on the list. On its right, you will see a link reading Show. Click on it to reveal your Secret Access Key. Copy it and paste it in the Secret Key configuration field of ARS.

Bucket
: This is the name of your Amazon S3 bucket. A "bucket" can be thought of as a virtual drive living in Amazon's cloud where you can store files in. In order to manage your Amazon S3 buckets, please visit https://console.aws.amazon.com/s3/home. The list of bucket names appears on the left hand side. If you don't have any buckets yet, click on the Create button to create one.

  Click on the bucket you want to use with ARS. It becomes selected and the right-hand pane loads a list of its contents. Above the right-hand pane there is a toolbar. Click on the Properties button. A bottom pane opens. On the let-hand side, you will see the Name field. Copy the name appearing there and paste it to ARS' configuration field.

  ### Important

  Bucket names are case sensitive! This means that ABC, abc and Abc are three different bucket names. Be perfectly sure that you copy and paste the bucket name as instructed above to avoid upper/lower-case mismatch which could cause ARS to not be able to use your Amazon S3 bucket.

Default permissions
: Amazon S3 has its own set of ACLs for the files created in the S3 buckets. If you are going to be offering private downloads, we urge you to set this option to `Private`. This will cause all files uploaded by ARS to your S3 bucket to be only accessible by your Amazon S3 user (and, since you configured the integration, ARS will be able to access them too). For more information about Amazon S3 ACLs please consult the Amazon S3 documentation.

Timeout for authenticated URLs
: Since ARS is designed to work with files stored on Amazon S3 as "Private", there would be an issue: how could we serve those files to the site's visitors? One way would be to download the file to your server, then serve it like the other file downloads. This would make the downloads

dead slow! Instead, we use what Amazon calls "authenticated URLs". An authenticated URL is a specially crafted URL which allows anyone knowing it to access and download the private file it references for a limited amount of time. So, ARS creates an authenticated URL and redirects the user's browser to it when he asks to download the file.

This ARS configuration option determines for how long the authenticated URL will be valid. By default, this is 1 minute, which is more than ample time to initiate the download. However, if your client is using a download manager and schedules the download for a later time, the URL will have expired before the download manager tries to access it, causing the download to fail. If you get grumpy users complaining that your downloads don't work, you can increase this timeout. We consider that anything over one day is an overkill, but it's your option to set it to as high as you want, up to a full month.

Creating categories linked to S3

Any ARS category can be instructed to look inside your configured S3 bucket instead of your server's filesystem. In the Files Directory option of the category you have to enter something like `s3://mydirectory` where mydirectory is the name of a directory in your S3 bucket. If you want to use your bucket's root for this category (not recommended!) you can simply enter `s3://` in this field.

From that point, all file operations are performed against the S3 bucket instead of your server's filesystem. In fact, you can use the Upload and Manage Files button in ARS' Control Panel page to upload and delete files in your S3 bucket, or create new directories into it. When you are creating items in this category, make sure you select "File" from the type drop-down and after a few seconds you will see a list of your files stored on Amazon S3. And, yes, Amazon S3 integration works with Normal and Bleeding Edge categories alike!

Chapter 4. Creating front-end items

A repository system is worth nothing if it can't be accessed from your site's visitors. ARS comes with ten different public layouts so that you can always present it the way you want. On top of that it uses Chameleon skinning. This is a technique originally developed by Stian Didriksen and used in the NinjaBoard forum component. Instead of providing you a huge CSS file you have to customize to make the component look good, Chameleon skinning uses module chrome to render its output. In other words, pieces of the pages generated by ARS look like Joomla! modules. Leveraging this technique allows you to quickly "skin" ARS to look beautiful on your site in less than 5 minutes, without writing a single line of CSS.

1. Creating repository views

When creating a new menu item, select the Akeeba Release System menu type. In the expanded layout tree you can select one of the following options:

BleedingEdge releases	It only shows the BleedingEdge categories, most commonly used to serve developer releases / nightly builds.
Normal releases	It only shows the categories of the "Normal" type.
Entire repository	Shows both kinds of categories.

You have the following Parameters (Basic):

Categories grouping	Set to Normal first in order to show categories of the Normal type on top. Set to None to show all categories based on the ordering you specify below.
Category ordering	Choose the ordering you'd like to apply to the categories listing
Releases ordering	When a user clicks on a category, it defines the ordering to be applied to the release of that category
Items ordering	When a user clicks on a release, it defines the ordering to be applied to the items of that release

In the Parameters Advanced you have the following options:

Show pagination	Should we show the pagination (links to the individual pages) on the bottom of the page?
Pagination results	Should we show the pagination results (page X of Y) on the bottom of the page?
Show a feed link	If enabled, the page will include links to the RSS and Atom feeds. This is useful to provide push updates to your clients.

> **Tip**
>
> If you want to let people know whenever you release new software by email, you can use Feedburner. First, copy the RSS feed URL and then disable the feed links. Go to FeedBurner, burn a new feed with that RSS feed and choose to enable email subscriptions to the feed. Provide a link to the subscription page or a subscription form in a module on the repository page for your visitors to subscribe. Super easy and very efficient!

2. Creating a "Latest Releases" view

The "Latest Releases" view is a single page overview showing all the categories, their latest releases and the download items on each one of then. You can view a live (and working!) demo on https://www.akeebabackup.com/latest. When

creating a new menu item, select the Akeeba Release System menu type. In the expanded layout tree select Latest Releases.

You have the following Parameters (Basic):

Category ordering	Choose the ordering you'd like to apply to the categories listing
Releases ordering	When a user clicks on a category, it defines the ordering to be applied to the release of that category
Items ordering	When a user clicks on a release, it defines the ordering to be applied to the items of that release

In the Parameters Advanced you have the following options:

Show pagination	Should we show the pagination (links to the individual pages) on the bottom of the page?
Pagination results	Should we show the pagination results (page X of Y) on the bottom of the page?
Show a feed link	If enabled, the page will include links to the RSS and Atom feeds. This is useful to provide push updates to your clients.

Tip

If you want to let people know whenever you release new software by email, you can use Feedburner. First, copy the RSS feed URL and then disable the feed links. Go to FeedBurner, burn a new feed with that RSS feed and choose to enable email subscriptions to the feed. Provide a link to the subscription page or a subscription form in a module on the repository page for your visitors to subscribe. Super easy and very efficient!

3. Creating category views

When creating a new menu item, select the Akeeba Release System menu type. In the expanded layout tree you can select Category View.

You have the following Parameters (Basic):

Select category	Choose the category you'd like to list
Releases ordering	It defines the ordering to be applied to the release of that category
Items ordering	When a user clicks on a release, it defines the ordering to be applied to the items of that release

In the Parameters Advanced you have the following options:

Show pagination	Should we show the pagination (links to the individual pages) on the bottom of the page?
Pagination results	Should we show the pagination results (page X of Y) on the bottom of the page?
Show a feed link	If enabled, the page will include links to the RSS and Atom feeds. This is useful to provide push updates to your clients.

Tip

If you want to let people know whenever you release new versions of your software by email, you can use Feedburner. First, copy the RSS feed URL and then disable the feed

links. Go to FeedBurner, burn a new feed with that RSS feed and choose to enable email subscriptions to the feed. Provide a link to the subscription page or a subscription form in a module on the repository page for your visitors to subscribe. Super easy and very efficient!

4. Creating release views

When creating a new menu item, select the Akeeba Release System menu type. In the expanded layout tree you can select Release View.

You have the following Parameters (Basic):

Select release   Choose the release you'd like to list

Items ordering   It defines the ordering to be applied to the items of that release

In the Parameters Advanced you have the following options:

Show pagination   Should we show the pagination (links to the individual pages) on the bottom of the page?

Pagination results   Should we show the pagination results (page X of Y) on the bottom of the page?

Show a feed link   If enabled, the page will include links to the RSS and Atom feeds. This is useful to provide push updates to your clients.

5. Making it look beautiful (component options)

Chameleon

ARS is using a Chameleon skinning engine. This term was coined by Stian Didriksen to name the technique he is using in the NinjaBoard forum component. In short, Chameleon skinning uses your template's module chrome to theme your pages. Instead of providing a truckload of CSS classes and a long CSS file you need to override to make the component fit your site's template, the individual parts of the page, e.g. category items in the repository view, are rendered as Joomla! modules. Spending 5 minutes to fine-tune the module rendering parameters allows you to easily and optimally integrate the visual presentation of ARS to match your template. The component intelligently "changes" its "colors" to match its surroundings, much like a chameleon.

In order to configure the Chameleon skinning engine, go to the component's Control Panel page and click on the Options (Joomla! 1.6) button in the toolbar. You can see the following options for the Category boxes:

Category module style   There is a text entry allowing you to enter the module "chrome" (rendering type) for modules installed on your Joomla! site. Make sure you enter one supported by your template. If unsure please ask your template developer or use "rounded".

Category Modulestyle Sfx   This is the class suffix to append to the module. Many template providers supply different module styles using one or more "suffixes". Type in the list of suffixes you want in this box.

Tip

You may need to leave a leading space before typing suffixes, depending on your template. If, after typing in the suffix(es), you see no visual change please leave a leading space. Multiple suffixes are separated by spaces.

There are also equivalent options for the Releases and Items boxes.

There is also one item called Bleeding Edge Suffix. These suffixes will be applied to category boxes for categories of the BleedingEdge type. In other words, a category box for a BleedingEdge-type category will have both the Category Modulestyle Sfx and Bleeding Edge Suffix contents appended to its CSS class name. This allows you to style Bleeding Edge categories differently than normal categories should you choose to do so.

The last item is called the Link template and defines how links to categories, releases and items will be rendered. By default it is `<a href="%s" class="readon">%s</a>` which is the generic way to render a "read on" link in Joomla!. Different templates use a slightly different HTML syntax for the "read on" links. You can type in the HTML you want. The first %s occurrence will be replaced with the URL of the link, whereas the second %s occurrence will be replaced with the item's title.

Warning

Joomla! 1.6 doesn't allow you to use HTML in this field. The only workaround is to substitute the lower-than and greater-than characters with square brackets. So, in Joomla! 1.6, the default link template should be written as `[a href="%s" class="readon"]%s[/a]`. ARS will intelligently figure out what you meant and convert it back to valid HTML.

If your template doesn't have adequate module styles, ARS will look like crap. However, there is an easy workaround! Just select the "rounded" style on all module styles and use unique suffixes for each kind of module type, e.g. " ars-category" for the category module suffix, " ars-release" for the category release module suffix and so on. This allows you to use standard CSS in your template to skin ARS to your liking, effectively working around the limitations of the Chameleon engine on templates lacking good support for module styles.

AkeebaBackup.com strongly recommends using templates from respected template clubs producing feature-rich templates, such as RocketTheme, if you want optimal presentation results with minimal fuss.

Bleeding Edge options

By default, releases in Bleeding Edge categories automatically generate a CHANGELOG and save it in the release notes based on the changed lines between the CHANGELOG files found in a release which is about to be published and the previously published release in the same Bleeding Edge category. You can customise how that works with parameters found in the component Options page.

Generate changelog for Bleeding Edge releases	When it's turned off the CHANGELOG will not be created and saved in the release notes.
Colorise Changelog	By default ARS adds some class names to each CHANGELOG line to allow color-coding each line based on whether it's an addition, deletion, modification, bug fix and so on. When this option is disabled these classes are not added. This could allow, for example, a content plugin to perform its own custom formatting of the CHANGELOG.

Front-end display options

If you want to fully customise the display of the component you have to do template overrides [http://docs.joomla.org/How_to_override_the_output_from_the_Joomla!_core]. But for simple stuff, like defining if the MD5 sum should be shown or to define what the users see when they are not allowed to access an item there are much simpler and more user friendly options.

No Access URL	When a user tries to access a category, release or item that he has no access to he normally gets a standard-issue Joomla! 403 Forbidden page. Not really user-friendly. Sometimes it's best to direct them to a page explaining why they have no access and give them instructions to subscribe to your

services. That's what this option does. Give the URL where the visitors will be directed when they try to access a category, release or item they have no access to.

Show file size   Should the release display the file size for each item?

Show MD5   Should the release display the MD5 sum for each item?

Show SHA1   Should the release display the SHA1 sum for each item?

Show environ-   Should the release display the environment (compatibility) badges for each item?
ments (compati-
bility)

Direct Link Options

ARS is excellent for distributing subscription-based software. However this requires the users to log in to your site, download the file to their device / computer and then use it. This is just fine when your users are using a full-blown computer, e.g. a desktop or a laptop. This doesn't really work when they are using a mobile device like a smartphone or a tablet. In those cases it would be much better if you could just give them a "pre-signed" URL which allows them to download the software directly, without having to log in. If you are in the business of distributing Joomla! extensions (like us) this direct link can be used with Joomla!'s "Install from URL" feature to allow your users to easily install the extension on their site.

And that's exactly what the Direct Link is: a link (URL) which can be used with Joomla!'s "Install from URL" feature to install subscription-based extensions. Of course you may find more creative uses for it!

Show Direct Link   When it's enabled a "Direct Link" link will be shown next to the regular download link of each item.

Direct Link tem-   It defines how the Direct Link links of each item will be rendered. By default it is `<a href="%s"`
plate   `class="readon" title="%s">%s</a>` which is the generic way to render a "read on" link in Joomla!. Different templates use a slightly different HTML syntax for the "read on" links. You can type in the HTML you want. The first `%s` occurrence will be replaced with the URL of the link, whereas the second `%s` occurrence will be replaced with the item's title.

Direct Link ex-   A comma-separated list of file extensions for which we should display Direct Link links. Do not
tensions   include the dots. Do not leave spaces between the comma and the extension. We recommend using `zip,tar,tar.gz` in here.

Direct Link de-   The tooltip for the Direct Link links. It's a good idea to use this to explain to your users what the
scription   Direct Link is all about.

Chapter 5. Advanced uses

ARS was designed with advanced users, professional site builders and, most importantly, developers in mind. We offer some features never seen before in a download repository, like 0-click publishing, country logging and an easy way to provide 1-click updates to your own extensions!

1. The content plugins

Akeeba Release System comes bundled with content plugins which make your life easier. Content plugins can be used in all areas of Joomla! and its components which support content preparation, such as articles, category descriptions, Custom HTML modules, K2, Zoo, Akeeba Release System itself (the descriptions support content plugins), Akeeba Subscriptions and so on.

1.1. The Download ID plugin

Shown in the plugin manager as: Content - Download ID

Note

This plugin only appeals to developers. If you are not a developer you don't need and you are not supposed to understand this part of the documentation. If you are not a developer, just disable this plugin.

If you want to provide updates to registered users / subscribers you will find out that the download URL in the XML and INI update streams results in a 403 Forbidden error. This is normal. These downloads are only available to registered users, but accessing the URL directly, from Joomla!'s perspective, is a guest (non logged in) visitor trying to access the URL. This of course results in a 403 Forbidden error and begs the question: how do you authenticate users?

The answer to that question is the Download ID. The Download ID is an MD5 hash derived from a user's numeric ID, username, encrypted password and email address which uniquely identified the user to ARS. Appending the download URL with the dlid=*download_id* query string parameter will allow ARS to authenticate the user and, if he has access to the download, proceed with the download.

You need to be able to communicate this Download ID to your users. This is where this plugin comes in use. Just enter

```
{dlid}
```

in an article, Custom HTML module or anywhere else where content plugins are supported. It will be replaced with the download ID of the current user, e.g. abcdef01234567890abcdef01234567890, or a blank string if the user is a guest.

Important

Just because a Download ID is displayed for a user it doesn't mean that he has access to any downloads. Think of the Download ID as a combined, abbreviated form of a username and a password.

Warning

The Download ID changes whenever your user changes or resets his password, *even if the his password is the same as the old one*. This is a consequence of the very correct and secure way Joomla! handles password changes. Whenever a password is changed, Joomla! stores a new encrypted form of the password, based on a new random string, in the database. Since the Download ID algorithm uses the encrypted password as part of its calculation, the Download ID changes when Joomla! changes the stored encrypted password.

1.2. The Latest Release plugin

Shown in the plugin manager as: Content - Akeeba Release System Latest Releases

Many times you want to include the latest published version number of a specific category in your content articles. Surely, you can just type it out. This works perfectly when you only do that in one or two places, provided that you remember to edit this information every single time you make a new release. However, after a while, it becomes too cumbersome. Especially when this information is present in more than two places and/or you have more than a handful of categories. This is where this plugin comes in to save your day. It allows you to automatically display the version number and URL of the latest release. Moreover, it allows you to link directly to specific items in the latest release of a category.

Showing the latest release version number

Syntax:

```
{arslatest release Category Name}
```

where Category Name is the name of the Akeeba Release System category (not the alias, the title). This will return the latest release's version number, e.g. 1.0.

Creating links to the latest release

Syntax:

```
{arslatest release_link Category Name}
```

where Category Name is the name of the Akeeba Release System category (not the alias, the title). This will return the URL to latest release's version number, e.g. 1.0. Please note that this is the URL, not a link! If you want to use it as a link you will need something like this:

```
<a href="{arslatest release_link Category Name}">Your link text</a>
```

You can combine it with the version number syntax for something like this:

```
<a href="{arslatest release_link Category Name}">My category,
version {arslatest release Category Name}</a>
```

Creating links to specific items in the latest release

Syntax:

```
{arslatest item_link "pattern" Category Name}
```

where Category Name is the name of the Akeeba Release System category and pattern is a file naming pattern, enclosed in double quotes. For example, in order to create a link to a download item for a file whose names begins with com_foobar and ends in .zip in the Foobar category you would have to do:

```
{arslatest item_link "com_foobar*.zip" Foobar}
```

Please note that this is the URL, not a link! If you want to use it as a link you will need something like this:

```
<a href="{arslatest item_link "com_foobar*.zip" Foobar}">Download latest version</a>
```

or combine it with the version number syntax to have something even more useful:

```
<a href="{arslatest item_link "com_foobar*.zip" Foobar}">Download
Foobar version {arlatest release Foobar}</a>
```

2. One-click Live Updates for your components

As part of our Open Source spirit, we are thrilled to announce the availability of Akeeba Live Update (ALU). It is a library licensed under the GNU Lesser General Public License (LGPL) version 3 or, at your own option, any later version. It allows you to enable one-click updates of your components by adding just 20 lines of boilerplate PHP code.

> **Note**
>
> Akeeba Live Update does not require using Akeeba Release System and does not require any third party software to be installed on your user's site. It integrates with your own component, it is distributed with your own component and is just a bunch of files placed in a directory of your own component. It has zero dependencies and works perfectly under Joomla! 1.5 and Joomla! 1.6.

Including ALU in your component

The first thing you need to include in your extension is the ALU library itself. After installing Akeeba Release System, go to your site's `administrator/components/com_ars` directory and copy the `liveupdate` directory to your extension's back-end directory. It's important not to name this directory differently. For example, if you have a component named com_foobar then the library must be installed in `administrator/components/com_foobar/liveupdate`.

Configuring ALU

ALU needs to know which extension it updates, where to look for updates and where to cache its information. You can do that by editing the `administrator/components/com_foobar/liveupdate/config.php` file. The variables you have to supply are the following:

$_extensionName	The folder name of your extension. In our example, that's `com_foobar`. ALU uses this information to automatically locate your extension's XML manifest file so that it can read the version number and release date of the installed copy of your extension to your user's site.
$_extensionTitle	The human-readable name of your extension, as presented in the Live Update GUI
$_updateURL	The URL to the update stream. Right now, only INI update streams are supported. You can either use ARS on your site to automatically provide the INI file (copy the INI link's target from the Update Streams view), or manually create an INI file with a text editor, place it somewhere publicly accessible and type in that URL in here.
$_requiresAuthorization	If you are using ARS to serve the downloads to your extension and you are limiting downloads only to registered users, set this to true to let ALU know that it needs to provide a username/password or a download ID to the updates server before downloading the update file.
$_versionStrategy	This lets ALU know how to determine if the component is up-to-date or out-of-date. The following options are available:
	different	If the version reported by the update server is different then the currently installed one, ALU decides that an update is available. Default and enough for most uses.
	newest	The release date reported by the update server and the one reported by the component are compared. If the update server's release date is newer, ALU decides there is an update available.

	vcompare	The version number reported by the update server and the one in the current extension are compared using PHP's version_compare() in order to determine which is newer.

$_storageAdapter   It can either be `file` or `component`. The File adapter will try to cache the update information in a file named something like `com_foobar.update.ini`. The Component adapter will try to store the (serialized) update information in a component parameter, by default called `live-update`. If you do not provide this option, the File adapter will be used.

$_storageConfig   This is an array containing the configuration options of the storage adapter. It is optional.

For the File adapter the following options are available:

path   Where to store the update cache file. By default, that's JPATH_CACHE, i.e. the `administrator/cache` directory.

An example of setting the configuration is this:

```
var $_storageConfig = array('path' => JPATH_CACHE);
```

For the Component adapter you have the following options:

component   The component whose parameters will be used for saving the update information. If it's not supplied, the currently running component is assumed.

key   The component parameter used for saving the update information. It has to be a hidden parameter whose name is the same as the contents of this configuration parameter. If it is not supplied, `liveupdate` is assumed.

An example of setting the configuration is this:

```
var $_storageConfig = array('component' => 'com_foobar', 'key' => 'liveupdate
```

Letting ALU handle the view=liveupdate requests

ALU is designed to be able to handle requests to your component's view=liveupdate URLs. In order to do that, you have to open the main entry point file of your component and append four lines of boilerplate PHP code. For instance, if your component is named com_foobar, open `administrator/components/com_foobar/foobar.php` and paste the following lines right after the `defined('_JEXEC') or die();` statement.

```
require_once JPATH_COMPONENT_ADMINISTRATOR.DS.'liveupdate'.DS.'liveupdate.php';
if(JRequest::getCmd('view','') == 'liveupdate') {
    LiveUpdate::handleRequest();
    return;
}
```

These lines do the following:

1. They load the ALU library.

2. They check if the name of the view is liveupdate. You can use a different view name by editing the right hand side of the conditional check.

3. If the view matches, they hand off the execution to ALU. Do not forget the return statement! If you do, your component's controller will fire after ALU's integrated controller, wrecking havoc.

Using ALU to create an update status Control Panel icon

ALU has a shorthand function to create an icon div, useful for displaying the update status of your extension in your extension's Control Panel page. All you have to do is paste the following line in your layout file:

```
<?php echo LiveUpdate::getIcon(); ?>
```

How ALU updates work

The first step is to get your user to visit ALU's main page. If you followed the instructions above to the letter, this is done by redirecting your user to view=liveupdate of your component, e.g. `index.php?option=com_foobar&view=liveupdate`.

Live Update will then try to fetch the update information. It will first check its cache. If there are no cached data or if they are older than 6 hours, it will re-fetch the information from your server. If an update is found, it will notify the user. It will also notify the user if Live Update is not supported on his server (lack of cURL / URL fopen() wrappers or firewall disallowing connections to your update server) or if ALU determined that the last time it tried to fetch updates it crashed.

If the user chooses to install a new version, the following will happen:

1. ALU checks if the Joomla! FTP Layer is enabled but no username/password is supplied. In that case, it will ask your user to supply the FTP username and password.

2. The update package is fetched from your server and saved to your user's temporary directory. ALU will first try using cURL. If that fails, it will try using URL fopen() wrappers. If writing directly to the file is not possible, ALU will load the package in memory and use JFile::write() to write it to disk. If all else fails, your user will see an error messaging prompting him to enable Joomla!'s FTP layer.

3. The downloaded update package is extracted using Joomla!'s API. If that fails, your user is notified and the process stops. A failed extraction usually means that either your package is broken or your user's server doesn't allow downloading files correctly.

4. The extracted package is installed using Joomla!'s API, but without calling the com_installer component itself. Any post-installation tasks will run normally, so don't worry if you want to run AJAX calls as soon as your extension is installed.

   Without loading a different page, a hidden IFRAME will take care of cleaning up, i.e. remove the update package and its extracted files, just like com_installer would do.

Since ALU performs these four steps in separate page loads it is much more resilient to server timeouts than Joomla!'s com_installer. More specifically, com_installer tries to run all four steps within the same page load. If your client is using Joomla!'s FTP layer this takes forever and causes a White Screen Of Death due to timeout or memory errors. ALU separates and isolates those steps, avoiding such issues even with extremely large installation packages (in the range of 2-4Mb!). Moreover, it provides intelligent error messages where it can instead of the cryptic com_installer messages, where "Package not found" may mean "I could not download the file"...

Allowing your user to upgrade extensions with restricted downloads

Some developers want to provide downloads that are not openly accessible to the public. For instance, downloading a file may require registering for a free account and logging in before it is available. Developers distributing their software for a fee have a similar condition to face: they need only their subscribers to be able to download their software. The common ground in all of those cases is that you actually need to log in the user before downloading the file.

ALU, when consuming the update feed of an ARS installation, can cater for that. How? If you set the $_requiresAuthorization to true, ALU knows that your site requires authorization before downloading a backup archive. In order to achieve that, it will append a username/password pair or a unique per user Download ID to the download URL. Akeeba Release System on your site sees that information and tries to authenticate the user. If the authentication succeeds, it will continue with the download.

The remaining question is how ALU knows what the username/password pair or the download ID is. The answer is simple. All you have to do is to create component parameters in your component's config.xml file. If you want to use username/password pairs, add the following lines after your <params> tag:

```
<param name="username" type="text" default="" size="30"
label="Username"
description ="Enter the username to our site in order to enable Live Updates" />
<param name="password" type="text" default="" size="30"
label="Password"
description ="Enter the password to our site in order to enable Live Updates" />
```

If you have a Joomla! 1.6 component replace <param> with <field>. Similarly, in order to use a Download ID use this:

```
<param name="downloadid" type="text" default="" size="30"
label="Download ID"
description ="Enter your Download ID to enable Live Updates" />
```

Alternatively, you can override the LiveUpdateConfig class' constructor and populate the $_username/$_password or $_downloadID parameters during the class initialization.

Do I need to pay anything / install your software on my users' site / sell my soul to the devil to use ALU?

No, absolutely not! We provide ALU free of charge and royalty free. It's license (GNU LGPL 3 or later) allows you to use ALU on Open Source and Proprietary components alike. You set up ALU to consume an ARS-provided INI update stream or you can supply your own INI update stream. There are no per-requisites and no strings attached. We have created ALU because we needed it for our own use. We give it away to the world so that all extensions can provide the smooth one-click-and-you're-up-to-date experience that made us famous.

We kindly ask, however, to not remove the link back to us on the bottom of ALU's pages. While you can legally do that (we can't and won't prevent you from doing so) we consider it professional courtesy to give us credit for our hard work. We also kindly ask you to submit any patches, fixes, additions or observations back to us. ALU is Free Software and as such it is powered by the worldwide Joomla! community. Any and all improvements to ALU have a positive impact to thousands of users.

3. How the BleedingEdge categories work

BleedingEdge (BE) categories are quite different than the Normal-type categories. You don't have to visit your site's back-end to publish and unpublish releases and items. It all happens automatically whenever you upload or delete files on your server. Here is the breakdown of how that works.

As all ARS categories, BleedingEdge categories are linked with a Files Directory. Unlike Normal-type categories, BE categories continuously monitor that directory for changes. Whenever you create a new subdirectory, a new ARS Release is created. The Version of the ARS Release is the directory's name and its Maturity is always set to "Alpha". Here is the coolness factor for software releases: If you upload a plain text file named CHANGELOG (yes, all caps and no extension), ARS will read it, compare it with the previous releases's CHANGELOG, colorize the result and use that as the ARS Release's description. The colorizer follows the Joomla! standard on marking changes in the CHANGELOG:

- Lines starting with # (hash) indicate bug fixes

- Lines starting with + (plus) indicate added features

- Lines starting with - (dash) indicate removed features

- Lines starting with ~ (tilde) indicate miscellaneous changes

- All other lines are comments and/or notes

If you're not interested in colorizing, changelogs and stuff like that, just keep in mind that if you upload a plain text file named CHANGELOG it will be used as your ARS Release's description.

Finally, for each file you upload an item be created and published. If you have set up Automatic Item Descriptions for the category they will, of course, be used for naming the file. ARS Releases and ARS Items created this way will inherit the access (view) level and AMBRA Group settings of the BE category.

Let's sum it up, OK?

- Creating directories creates releases

- A text file named CHANGELOG will be used to produce your release's description

- Uploading files creates items

- Access (view) levels and AMBRA Group settings are inherited from the category to the release, to the items

- Deleting a directory unpublishes the release

- Deleting a file unpublishes the item

- You don't need to login to your back-end to manage the releases and items, but if you want to, you can.

4. Updating the MaxMind GeoIP database

Note

This product includes GeoLite data created by MaxMind, available from http://www.maxmind.com/.

Akeeba Release System uses the free MaxMind's GeoLite Country database for determining the country of origin of users downloading your items. More specifically, it uses the GeoLite Country database file. This file is updated very frequently, about once every month. You can download its latest version directly from MaxMind's website [http://geolite.maxmind.com/download/geoip/database/GeoLiteCountry/GeoIP.dat.gz]. Why do that? IP assignments to countries change all the time. By the time we release our software, the database file is most likely already stale. This could cause some IP addresses to be identified as coming from the wrong country. Updating the file regularly will give you much better accuracy in the country statistics. Do note that MaxMind claims an accuracy of 99.5% for its free GeoLite Country database. This means that some IP addresses may still be reported as belonging to the wrong country. Furthermore, IPv6 is not supported yet.

Tip

If you are a subscriber to MaxMind's more accurate (99.8% advertised accuracy), for-a-fee GeoIP Country database you can use that database instead of the free GeoLite database included in the component, using the same procedure.

The file you download is a compressed file, named GeoIP.dat.gz. You have to uncompress it first, using gunzip (Linux), or your favourite archive file application such as 7-Zip, WinZIP, PKZIP for Windows, BetterZIP, etc. This will result

to an uncompressed file named GeoIP.dat. Upload that file to the `administrator/components/com_ars/assets/geoip` directory of your site.

Important

If you are on Linux hosting (most likely you are) lower and upper case letters do matter! The file must be named exactly `GeoIP.dat`. Other names, such as `Geoip.dat`, `GEOIP.DAT` or `geoip.dat` will not work.

Do note that download log records prior to installing the new version of the database will not be affected. Only download attempts logged after uploading the new database version will be affected by the new database version.

Part II. Appendices

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Appendix A. GNU Free Documentation License

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