

# ***Manual for BwPostman***

**Romana Boldt**

Publishing date: July 2015

**This book covers the use of BwPostman for  
Joomla!®-powered web sites.**

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.3 or any later version published by the Free Software Foundation; with the invariant sections "Introduction" and "Safety Instructions", Front-Cover Texts and Back-Cover Texts. A copy of the license is included in the appendix entitled "The GNU Free Documentation License".

The software BwPostman is free software and stands under the GNU General Public License Version 3 or any later version published by the Free Software Foundation.

## Table of Contents

Introduction	6
Suggested Proceeding	9
Further Help	10
Safety Instructions	11
Installation and Update	12
Installation	12
Download Packages	12
Installing the Component	12
Installing the Modules	12
Alternative Installation	13
Update	13
Configuration	15
Basic Settings	15
Sender's name	
Sender's email	
Reply-to-email	15
Legal Infos	15
Number of newsletters per step	
Time Delay While Sending	
Unit Of Time Delay	15
Show Boldt Webservice link	16
Registration	16
Introduction text	16
Display form field name and first name	16
Name or first name is obligation	16
Show gender selection	16
Show additional field	16
Additional field is obligation	16
Label additional field	16
Tooltip additional field	17
Show the mail format selection	17
Email format	17
Display disclaimer	17
Link target	
URL for the disclaimer	
Article	
Menu item	18
Open disclaimer in current window	18
Secure registration form	18

Question	
Answer	18
Activation	19
Title for Activation	19
Text for Activation	19
Text Agreement	19
Activation also to webmaster	19
Sender name	19
Mail address of webmaster	19
Lists View	20
Search Field	20
Show Date List Filter	20
Show Mailing List Filter	
Show Campaigns Filter	
Show User Groups Filter	20
Show Attachment	20
#Newsletters to List	20
Single View	20
Show Attachment	20
Show subject as page title	20
Permissions	21
The Back-end	22
Creating Mailing Lists	22
Enter Subscribers and Test-Recipients	23
Creating or Editing Newsletters	24
Tab General Information	25
Tab HTML newsletter	27
Personalisation	27
Tab Text newsletter	27
Tab Preview	27
Tab Send	28
Tab Queue	29
Button Send	29
Sent newsletters	30
Creating Menu Entries For The Front-end	31
Newsletter registration	32
Edit newsletter subscription	32
Published newsletters (single view)	32
Published newsletters (overview)	32
Constraints	33
Check access	33
Recipient selection	34
Campaign selection	34

The Front-end	35
Edit newsletter subscription	35
Advanced Use	37
Campaigns	37
Import and Export	37
Import Subscribers	37
Surest Strategy To Import CSV Files	39
Export Subscribers	40
Batch Processing at Subscribers	41
Archive and Restore	41
Delete	41
Check-In	42
Adjust The Look In The Front-end	43
Templates - Adjusting the appearance of a newsletter	44
Templates installieren	44
Standard Templates	45
Tab Generals	45
Tab Header	46
Tab Intro	46
Tab Articles	46
Tab Footer	47
Free Templates	47
Tab Generals	47
Tab Template CSS	48
Tab Template HTML/Template Text	48
Maintenance	49
Check and repair tables	49
Save tables	50
Restore tables	50
Migration of BwPostman to another Joomla!® Installation?	51
Warning messages	52
Appendix	53
GNU Free Documentation License	53
OPREAMBLE	53
1APPLICABILITY AND DEFINITIONS	53
2VERBATIM COPYING	55
3COPYING IN QUANTITY	55
4MODIFICATIONS	56
5COMBINING DOCUMENTS	58
6COLLECTIONS OF DOCUMENTS	58

7AGGREGATION WITH INDEPENDENT WORKS	58
8TRANSLATION	59
9TERMINATION	59
10FUTURE REVISIONS OF THIS LICENSE	60
11RELICENSING	60
GNU GENERAL PUBLIC LICENSE	62
Preamble	62
TERMS AND CONDITIONS	63
0. Definitions.	63
1. Source Code.	64
2. Basic Permissions.	65
3. Protecting Users' Legal Rights From Anti-Circumvention Law.	65
4. Conveying Verbatim Copies.	65
5. Conveying Modified Source Versions.	66
6. Conveying Non-Source Forms.	66
7. Additional Terms.	68
8. Termination.	69
9. Acceptance Not Required for Having Copies.	70
10. Automatic Licensing of Downstream Recipients.	70
11. Patents.	71
12. No Surrender of Others' Freedom.	72
13. Use with the GNU Affero General Public License.	72
14. Revised Versions of this License.	72
15. Disclaimer of Warranty.	73
16. Limitation of Liability.	73
17. Interpretation of Sections 15 and 16.	73

## Introduction

BwPostman 1.2.0 is a complete and extensive newsletter extension for Joomla!® 3.3.6. The versions until 1.0.8.2 of BwPostman also work with Joomla!® 2.5.16.

BwPostman main features:

- You can compose the content of the newsletter with free text and articles that are already written in Joomla!®.
- The newsletters can be personalized.
- In BwPostman you can create as many mailing lists as you want and so you can get different mailing lists for every thinkable constellation of recipients (guests, registered users, issue...).
- BwPostman always generates the newsletter in HTML and in text format.
- Extensive template system for easily adjusting the appearance of newsletters. Provided templates may be copied and adjusted or you can create completely free templates for the newsletters (very big thanks to Karl Klostermann!).
- The campaign manager in BwPostman enables you to combine newsletters to a campaign that belongs together.
- You can import subscribers from a CSV- or XML-file. So you can e.g. export the address book from a mail program and import it in BwPostman. Export of subscribers is also possible.
- You can archive subscribers, newsletters, mailing lists, campaigns and templates and restore it from the archive.
- A special property is the possibility to adjust, how many mails will be sent at once. The delay is adjustable.
- Sending of an attachment with the newsletter.
- Module for newsletter subscription.
- Module for monthly overview of newsletters in front end with many and varied options.
- For the front end predefined CSS styles may be overridden by self-defined CSS file.
- User-defined texts for activation mail and legal informations.

- Webmaster or another person may be informed per mail at each confirmation.
- Author and created date of articles of Joomla!® may be deselected in settings.
- Arrangements against subscriptions by robots with a simple maths task or as user defined question, adjustable in settings.
- Tables of BwPostman can be saved and restored.
- Tables of BwPostman can be checked and repaired.
- Migration to another Joomla!® Installation is possible conditionally.

The download of the whole package includes:

- The basic component BwPostman,
- a module for registration to the newsletter system to show at a module position; it may use the settings of the component or its own settings,
- a module to show the number of sent newsletters per month for selected recipients or campaigns,
- this English manual as a PDF document,
- a German manual as a PDF document.

The overall package has to be unzipped first. Then the single parts of BwPostman can be installed as usual by the installer of Joomla!®.

This manual is arranged in such a way, that you are able to learn the use of BwPostman step by step and you are able to create your first newsletter as soon as possible. For that reason I suggest to practise the use of BwPostman parallel to reading this manual.

While the module to register effectively is a copy of the subscription form of the component, the settings are exactly the same as at the component. Therefore there is a switch, with which the settings may be adopted. If the switch is set to **no**, then you have to set the options of the module completely.

This manual is written mainly for less experienced Joomla!®-Users. Experts in Joomla!® may overlook the very detailed descriptions.

The main idea of BwPostman is based on the component mkPostman, which is no longer supported and maintained by their developers after Joomla!® 1.5.

In comparison to the predecessors BwPostman in version 1.0.1 is mainly rewritten. The code is adapted to the new API, reduced and many internal processes are simplified. With version 1.1.0 the support of Joomla!® 2.5 was dropped. The code could be slimmed down,



filtering and searching in back end is obviously improved with the possibilities of Joomla!®  
3.



## Suggested Proceeding

BwPostman must be installed and configured, before you can use the component.

### ***Hint:***

In BwPostman mailing lists are the key elements: Subscribers subscribe to one or more mailing list(s) and newsletter will be sent to one or more mailing list(s) ( and also user groups may be selected).

Because of that you now need one or more mailing lists, that keeps the subscribers.

It is very useful to create some test recipients. They can be used to learn about the functionality of BwPostman. Next you can test the CSS entered in the options without sending these tests to a real mailing list. Later you can use test recipients to test the single newsletter, before it is sent to the subscribers.

Then the first newsletter will be created and sent.

Finally I will write about the special features BwPostman contains:

- Create menu entry points for front end
- Campaigns
- Import and export recipients
- Batch processing at subscribers
- Archiving of recipients, mailing-lists, newsletters, campaigns and templates
- Adjustments to the look in front-end
- Adjusting the look of the newsletters
- Maintenance

## Further Help

***If there are questions or problems occur, fast help in English and German you get at the Forum of BwPostman:***

<http://www.boldt-webservice.de/en/forum-en/bwpostman.html>

Since version 1.0.1 of BwPostman there is a link **Help** in the toolbar, which opens a new browser window with the forum of BwPostman. Furthermore there is a button in the main view of BwPostman to the forum. A click to the button opens a new browser window or browser tab – depending on browser settings – with the forum of BwPostman.

Incidentally you everywhere find tooltips (that is, when you move the cursor to the list entry and wait a little while), that may help very fast. Many are really detailed, some will get improvements with the time.

## Safety Instructions

***BwPostman is tested on many Joomla!®-installations without problems. Nevertheless I can't exclude that something goes wrong during installation. Especially the „interplay“ of different extensions can't be estimated fully and negative effects can't be excluded.***

**Therefore:**

***I suggest to always backup the complete system (database and files) before you make changes to your Joomla!® installation (installation or update of an extension)! For this task the free version of [Akeeba Backup](#) e.g. is suitable.***

***Since BwPostman 1.0.1 the possibility exists at maintenance to save and restore the tables of BwPostman directly from BwPostman. Furthermore since this version there will be created a backup file of the tables of BwPostman in the temp folder of Joomla!® at each update and the tables were checked on consistency. Particulars in chapter Update.***

***Testing an unknown extension – this is also true for BwPostman – it is highly advised not to do at a life-system.***

## Installation and Update

**Please read the safety instructions ahead before!**

### Installation

#### Download Packages

Before you can install BwPostman, the installation package has to be downloaded. At <http://www.boldt-webservice.de/downloads/bwpostman.html> you will find the downloads for the overall package as well as the single packages for the component and the modules. Also you find there the download for the manuals. The current stable version is always at the top of the list.

In the back-end of Joomla!® you also find the download of BwPostman, namely in the web catalogue of the extensions.

**The overall package contains the component, the modules and the manual in German and English. Therefore the overall package must be unzipped before you are able to install.**

The overall package is named **BwPostman.version\_number.UNZIP\_FIRST.zip**, the package for the component is named **com\_bwpostman.version\_number.zip** and the package for the module to subscribe is named **mod\_bwpostman.version\_number.zip** and the module for the overview ist named **mod\_bwpostman\_overview.version\_number.zip**.

Unzip the overall package to any desired place, e.g. the desktop. The resulting single packages may be installed as they are.

#### Installing the Component

The installation of BwPostman works like all other Joomla!®-components: Log in into the back-end. Then in the back-end go to **Extensions → Extension Manager**.

In tab **Upload Package File** click at **Browse...**, select the file **com\_bwpostman.version\_number.zip** and click at **Upload & Install** – ready.

#### Installing the Modules

In tab **Upload Package File** click at **Browse...**, select the file **mod\_bwpostman.version\_number.zip** respectively **mod\_bwpostman\_overview.version\_number.zip** and click at **Upload & Install** – ready.

## Alternative Installation

Sometimes the installation won't work as described. Then you can try this alternative way: As explained above download the overall package and unzip it locally. Then unzip the single packages locally also.

In the temporary folder of your web server create a new folder **com\_bwpostman** or **mod\_bwpostman** and copy the unzipped files in this folder. Copying to web server works comfortably via Filezilla. After that attach **/com\_bwpostman** or **/mod\_bwpostman** respectively **/mod\_bwpostman\_overview** to the entered path in Joomla!® installer and click at **Install** in the same row.

In all three cases the installation finished after a few seconds and Joomla!® confirm the installation with a success message.

## Update

### Please read the safety instructions ahead before!

BwPostman serves the automatic update function in Joomla!®. That means, that it will be displayed in the back-end as soon as a new version of BwPostman component or modules is available. When the Joomla!®-integrated plugin **Quick Icon - Joomla!® Update Notification** is activated, you can see this when you enter back-end and the control panel will be shown. A click at the button **Updates are available** will show you the available updates, even so the updates for BwPostman.

When the plugin is not activated, you can look for updates in the back-end in the menu **Extensions → Extension Manager** in sub menu **Update** (clear cache before if necessary) and install it.

### Hint:

Since version 1.0.1 after each update the table structure of BwPostman tables will be checked and repaired if necessary. The check is processed in a Popup, where you may see the progress. Has the check finished, you may close the Popup.

Before the check a backup file of the BwPostman tables is created in the temp folder of Joomla!®, that means directly on the server. Where this exactly is, you will find in Joomla!® at **System Global Configuration → Server**.

The name of the backup file is *BwPostman\_Tables\_Server\_<date>\_<time>.xml*, where <date> is the actual date of the backup in the format yyyy\_mm\_dd, <time> is the time

of the backup in the format hh\_mm. When the file is created at July, 31 2014 at 08:13 AM, then the backup file is named

*BwPostman\_Tables\_Server\_2014\_07\_31\_08\_13.xml*

If the check of the tables was successful, the file may be deleted. You should do that from time to time for that the temp folder is not claimed to much from these automatic backup files. You also may download these backups and keep it locally.

## Configuration

After installation BwPostman has to be configured. To do so you click in the top right corner of **Components** → **BwPostman** at the button **Options** in the back-end of your Joomla!® installation. Or you click at the button **Basic settings** in the main view of BwPostman. The options are only available in the main view or in the maintenance.

The options are divided in six sections: **Basic Settings**, **Registration**, **Activation**, **Lists View**, **Single View** and **Permissions**. For all options there are tooltips.

### Basic Settings

**Sender's name**

**Sender's email**

**Reply-to-email**

With the values entered here the fields **Sender's name**, **Sender's email** or **Reply to email** of each newsletter will be preallocated. They may be overwritten in each newsletter individually. They are predefined with the values of your Joomla!® configuration.

If the fields **Sender's name**, **Sender's email** or **Reply to email** remain empty they will be filled automatically with the data of your Joomla!® configuration. But I suggest to enter these data to become independent from changes in Joomla!® core.

### Legal Infos

Here you can set the infos that are required by law.

This text appears in the newsletter directly above the links to edit or cancel the subscription.

**Number of newsletters per step**

**Time Delay While Sending**

**Unit Of Time Delay**

Next you can enter how many newsletters will be sent at once. Some providers don't like it, if you want to send too many mails at once. Thus BwPostman never sends all newsletters at once but in blocks except the entered value is higher than the number of recipients for this newsletter/mailling list. The default value is 100.

Below you set the time, that shall BwPostman wait, until the next block will be sent. BwPostman only accepts positive integers. All other values will be interpreted as 0.

You can select whether the entered value means minutes or seconds.



## Show Boldt Webservice link

May I do some commercial for me? If not, then select **no**.

## Registration

### Introduction text

In this field you can enter a text, which will be shown at the front-end in the registration form of component and module for registration and in the subscription manager as introduction. For the module for registration you may enter the text in its settings.

### Display form field name and first name

Here you set, whether the fields for last name and/or first name should be shown in the registration form and in the edit form of the subscription. This makes sense if you want to personalize your newsletter.

### Name or first name is obligation

Here you set, whether first name or last name (or both) are obligatory. If you chose **yes**, then the appropriate field will be shown in the registration form and the edit form of the subscription, even if it is disabled in the option field above.

### Show gender selection

Here you set, whether the selection for the gender should be shown in the registration form and in the edit form of the subscription. This makes sense if you want to personalize your newsletter more specific.

### Show additional field

Here you set, whether the additional field should be shown in the registration form and in the edit form of the subscription. For example, here you can ask the subscriber for the membership number of an association or a customer ID, if the subscriber has no account at Joomla!®.

### Additional field is obligation

Here you set, whether the input of the additional field is obligatory. If you chose **yes**, then the appropriate field will be shown in the registration form and the edit form of the subscription, even if it is disabled in the option field above.

### Label additional field

Here you set, how the label of the additional field shall be. To work also on multi-language websites, you may enter a language string, which is applied in the appropriate override file

for the language. It will be used the override file for the back end, the override files therefore resides at **<my\_joomla\_installation>/administrator/language/overrides**. If the folder does not exist, simply create. The English override file is called **en-GB.override.ini**.

If here a language string BWPOSTMAN\_ADDITIONAL\_FIELD\_LABEL is set, then the entry in the override file may look like:

```
BWPOSTMAN_ADDITIONAL_FIELD_LABEL="membership number"
```

### **Important:**

- At the language string, that is the left part until the equal sign, there must not occur a space or special sign. Umlauts also are not allowed.
- Please don't enter spaces around the equal sign, The delimiter for the text, that shall be shown instead of the language string, use double quote.
- Each language string needs a separate row. Empty rows will be ignored and may be used to structure the file.

## **Tooltip additional field**

The additional field may get a tooltip, which will be displayed, if you hover the label with the mouse. Just as well, you may use a language string.

## **Show the mail format selection**

Here you define whether the email format shall be shown in the registration form or not. This setting is applied to both, component and registration module as long as there is nothing else adjusted in the module.

## **Email format**

Here you set the default email format the newsletter will be sent out, when the subscriber has not selected anything. This is the predefined setting for both registration forms, component and registration module. Here also: The registration module may have its own settings.

## **Display disclaimer**

In the registration form you can display a link to a disclaimer. In this case the subscriber has to accept the disclaimer before sending the registration. In some countries a disclaimer is useful, in Germany it is possibly harmful.

But you may use it as a manner of terms of use for the newsletter, what you may do with the email address you got, or, or, or. For something, the subscriber has to give his okay.

### Link target

#### URL for the disclaimer

#### Article

#### Menu item

Here you set, where BwPostman will find the disclaimer to use. In the field **URL for the disclaimer** you enter an **URL** as source for the disclaimer. Then you have to select **URL** as **Link target**.

At **article** you are able to select an article of Joomla!®. Then you have to select **Article** as **Link target**.

At last you may use a menu item of Joomla!®. In this case the **Link target** is **Menu item**.

### Open disclaimer in current window

Here you set, if the disclaimer will be shown in the current window/tab of the browser or in a new one.

### Secure registration form

Here you set, whether the registration form will be secured against robots. This protection will help to get less subscriptions by robots and less error mails because of undeliverable activation mails. Possible values are **No**, **Question** or **Captcha**.

The **Question** you may select by yourself and should not be too complicated. It will be set in the fields **Question** and **Answer**.

Examples:

- How many legs has a horse? (1, 2, ...)
- Which colour has a red car?

**Captcha** is a little Captcha driven maths task.

### Question

### Answer

If **Question** is set in **Secure registration form**, then you have to fill these fields by your question and its answer. The question appears in registration form, the answer is needed by evaluation and will not be shown.

## Activation

### Title for Activation

The activation mail always will be sent personalized. Here you set, how to approach the subscriber, e.g. **Hello** or **Hello Mr./Mrs.** Last one only make sense, if last name, first name or both are obligatory.

### Text for Activation

This is the text that appears after the salutation.

After this text the link to activation appears. It is useful to tell the subscriber, that he has to activate his subscription by clicking the link below. You may amplify this text by your wishes.

If nothing is entered here, the link for activation will be shown directly after the salutation. Does the subscriber knows, what he has to do? No? Therefore: Enter **Text for Activation!**

### Text Agreement

In some countries it is necessary by law to tell the subscriber some more informations, that haven't to appear in each mail. Here you may enter these informations. Or further informations by your own.

This text appears after the link for activation.

### Activation also to webmaster

If you want to be kept current, how the subscriptions grow up, when and who someone subscribed a mailing list, then you should switch on **Activation also to webmaster**. This notification contains all details of registration, beneath first name and last name the date, time and IP of registration and confirmation. These data may be helpful in case of dispute.

### Sender name

Here you enter the sender name, that will be used in the notification mail.

### Mail address of webmaster

Here you enter the mail address, to which the notification mail will be sent. That may be the webmaster or another person, that shall be informed, that a new subscriber has activated his subscription.

## Lists View

These settings are for the newsletters list view front-end. They serve as default values if there is nothing entered at menu entries.

### Search Field

May the visitor search for a specific subject? Then select **Show**. This is the default value.

### Show Date List Filter

If visitors may search for a specific month and/or year, then select **Show**. This is the default value.

### Show Mailing List Filter Show Campaigns Filter Show User Groups Filter

If you show several mailing lists/campaigns/user groups in the list of newsletters in front-end, then it may quite be meaningful for the visitor to limit the list of shown newsletters to a specific mailing list/campaign/user group. The appropriate select lists you set with these switches.

### Show Attachment

If you do not want to show the attachment of a newsletter in the front-end, then you should select **hide** here. The default value is show and arranges, that a little icon is shown at the respective subject, if there is an attachment to this newsletter. A click to this icon opens the attachment.

### #Newsletters to List

Here you set, how many newsletters are shown per page. Default value is 10.

## Single View

### Show Attachment

This switch has the same meaning like at lists view, but obtains to the view of a single newsletter in front-end. The icon is shown as a button beside the sending date.

### Show subject as page title

With this switch you determine, if the subject of the newsletter is used as page title. Currently the subject serves as browser page title. This setting may be overwritten at menu entry at Page Display.

## Permissions

In permissions you set, who may do what in back-end of BwPostman.

The rights **Configure**, **Administration access**, **Create**, **Edit**, **Modify state**, **Edit self-created contents** and **Delete** correlate to them you know in Joomla!®.

To BwPostman there are added the rights for **Send newsletter**, **Archive** and **Restore**. I think, the denotations of this rights are self-explaining.



## The Back-end

The back-end of BwPostman has a main view, also called main menu, that may be used as a starting point for all actions that are possible in BwPostman. It contains buttons for all overviews together with buttons to create newsletters, subscribers, test-recipients, campaigns, mailing lists or templates. There also are buttons to reach options, the maintenance and the forum of BwPostman. At the right you find informative statistics.

The menu at the left may be switched of by a click to the blue left arrow.

Okay, let's start:

Before the first newsletter can be created, there must exist at least one mailing list. It is possible to use separate lists for different topics and/or groups of recipients.

## Creating Mailing Lists

Via button **Mailing lists** you get an overview about already created mailing lists.

A new mailing list will be created either in the main menu of BwPostman with the button **Add mailing list** or in the overview of the mailing lists with the button **New** in the toolbar.

Each mailing list needs a title/name and a description. Both can be displayed in the front-end.

In the select list **access level** you can determine, who can subscribe to this mailing list. When a subscriber is not allowed to subscribe to this mailing list, then it will not be shown in the select list in the front-end.

**Mailinglists Permission** works exactly like permissions in Joomla!® articles.

In order to be able to select the mailing list in the front-end, it **must** be published. This can be done in the details (mode **Edit**) of the mailing list. But a click to the symbol in the column **Published** in the overview of the mailing lists switches the state, too.

The mailing list can be edited by clicking at the title in the overview of the mailing lists or while checking the check box in front of the title and clicking at the button **Edit** in the toolbar.

### Hint:

A user can't select unpublished mailing lists in the front-end, but in the back-end an administrator or a person with appropriate rights can allocate each user to this mailing lists. In this way you can enable access to this mailing lists to "hand selected" users.



Archived mailing lists will **not** be displayed in the overview!

## Enter Subscribers and Test-Recipients

Normally subscribers subscribe to the mailing lists by themselves. More precisely mailing lists will be subscribed to and to them you send newsletters. But there are cases to create a subscriber in the back-end by webmaster. Because of that you got this possibility in the back-end. Test-recipients only may be created in back-end.

How we just learned at the mailing lists, subscribers can be created in the main menu of BwPostman with the button **Add subscriber** or in the overview of the subscribers with the button **New** at the tabs **Confirmed subscribers** and **Unconfirmed subscribers**.

Test recipients will be created in the main menu of BwPostman with the button **Add Test-Recipient** or in the overview of the subscribers in the tab **Test-Recipients** with the button **New**.

**Last name** and **first name** must be entered, when it is set to obligatory in the options of BwPostman. There also is no exception in the back-end!

It must be entered at least a **mail address** for the subscriber. Indeed, BwPostman has to know where to send the newsletter.

The mail format can be selected at **Format** and is predefined with the value from the options of BwPostman.

The field **Confirm** only appears when you create a new subscriber. At test recipients and editing a subscriber it is not displayed.

### To Confirm regard the following:

The subscriber gets an automatic mail, that contains a link, with that the subscriber has to confirm his subscription (Double-Opt-In), when the field **Confirm** is set to **unconfirmed**. If you want to avoid legal difficulties (sure for Germany), then you shouldn't select confirmed by yourself but you should let confirm the subscription by subscriber!

The available mailing lists will be shown below. On the left you find the mailing lists, that ever can be selected in the front-end in general. The state of this mailing lists is **Public** and they are published.

In the middle there are mailing lists, that only specific user groups may subscribe to in the front-end. These mailing lists are published basically and can be subscribed at front-end, but not for everyone.

At the right there are mailing lists, that only can be assigned in the back-end. These are the mailing lists, that are unpublished, nevertheless to which user group they are assigned to.

The mailing lists are not shown at test-recipients. They will be created in general and get all mailing lists at test sending.

Like noted above someone with appropriate access to the back-end may assign the subscriber to that mailing lists, that are not shown in front-end, for what reasons ever.

While the subscriber has not confirmed his subscription, he will be displayed in the overview at the tab **Unconfirmed subscribers**. When the subscription is confirmed, the entry moves to the list **Confirmed subscribers**.

Now something about the rights of the subscribers to select mailing lists:

Guests, that means user, that have no user account in Joomla!®, only are able to register to public mailing lists (access level public). When an user has an account in Joomla!®, then he is able to register to mailing lists, that needs higher permissions – depending on the specification of mailing list and his access level in Joomla!®. In the back-end you can assign each subscriber to all mailing lists you want independent of the predefined access levels.

Archived subscribers and test recipients will **not** be displayed in the overview!

At the end of this chapter some helpful hints:

Per mail address it is only possible to create one subscriber. But for the same mail address you can create two test recipients, one test recipient for each mail format. With this a mail address may occur three times in the overviews of the subscribers at maximum.

If a subscriber is added, BwPostman checks back whether this mail address perhaps exists at a registered Joomla!® user. If so, then the corresponding ID will be stored at the subscriber and the subscriber – if he is logged in – gets offered the mailing lists to subscribe, that are available for his access level.

## Creating or Editing Newsletters

Now we come to the core piece of BwPostman, the newsletters.

A newsletter is also created in the main menu of BwPostman. And as usual there are two possibilities, too. Either with the button **Add newsletter** directly in the main menu or from the overview of the newsletters (button **Newsletters**) in the tab **Unsent newsletters** with the button **New** at top.

A newsletter also can be created by copying an already created newsletter. Either unsent and sent newsletters may be copied.

To copy a newsletter click at the button **Copy** in the toolbar. The copy appears in the tab **Unsent newsletters** in the overview, even if you copied a sent newsletter.

A click at the subject of the newsletter or select the checkbox in front of the row and a click to **Edit** on top on opens the newsletter.

Creating newsletters will be processed in five steps. This will be symbolized with five tabs. Creating a new newsletter or modifying an existing newsletter always begins at tab **General information**.

### Tab General Information

**Sender's name**, **Sender's email** and **Reply to email** were taken automatically from option entries of BwPostman, but they may be overwritten, too. Then you enter the **subject** for the newsletter. There is nothing without subject. Since version 1.0.8 the subject needs not to be unique. You may use one subject several times. But to keep newsletters apart there is a new field **description**, that you find right-hand.

Next you may select an **attachment** to send with the newsletter. The dialogue to select the attachment is the same one Joomla!® uses. This means, that you may upload the desired attachment to the server if it is not there.

If you already have created campaigns, then you can select whether and – if yes – to which campaign the newsletter belongs to.

Below you can set whether a newsletter shall be set published at a specific time and when publishing ends. This only meets the visibility in front-end. These dates work exactly like the dates at the articles of Joomla!®. With the publishing date you do **not** set, when the newsletter will be sent!

Right-hand you find further informations to the newsletter. Here you may enter a description for the newsletter. This is very helpful to keep newsletters apart, that use the same subject. The description is only for internal use. A subscriber does not see this description.

Next you select the template, the newsletter shall use. This will be done separately for HTML newsletters at the left and text newsletters at the right. A tooltip for the template shows a preview of the template if there is any created at the template. More informations you will find in chapter **Templates – Adjusting the appearance of a newsletter**.

Subsequently you select to whom the newsletter shall be sent: To one or more certain mailing lists and/or to one or more user groups of Joomla!®. You may select multiple

entries from the select lists. It also is possible to select entries from the select list for the mailing lists **and** for the user groups of Joomla!® contemporary.

Here, too, the mailing lists are divided into three sections: At the left the mailing lists, that may be selected in front-end ever, in the middle the mailing lists, that only may be selected by designated subscribers and beside at right are the mailing lists, that only can be assigned in back-end. At the far right the user groups created in Joomla!® are selectable.

**Hint:**

If a newsletter belongs to a campaign, the recipients are selected at the campaign and this section does not occur.

Finally you select the articles from Joomla!® you want to use. To do so make a double click at the desired article of Joomla!® in the select list **Available website contents** at right or mark the desired article in the select list and click the button with the left arrow between the two select lists. The selected article moves from the right to the left select list **Selected website contents** and disappears in the right list, so you can't select him twice accidentally. Double content isn't very pretty.

If you were in error and you don't want a specific article already selected for your newsletter, then select it in the left select list and click at the right arrow. It moves back to the right select list and will be shown afterwards at the bottom of the select list. A double-click to the unwanted article does the same.

**Hint:**

You can create a newsletter only based on articles from Joomla!®, you can enter a free text or mix both.

The current working state always can be saved by clicking the button **Save**, if the mandatory fields are filled.

**Hint:**

If content exists in one of the tabs **HTML Newsletter** or **Text Newsletter** and then there were made changes to **Selected website contents** in the tab **General Information**, then a confirmation question occurs while clicking on another tab to check if the already selected contents in the HTML and Text version shall be overwritten. **OK** takes the changes, **Cancel** discards them. These changes only are saved finally, if the newsletter is stored by clicking to **Save** or **Save & Close**. **Close** or **Cancel** discards the changes.

The same confirmation question appears, if you select another template and the behaviour is just the same.

These changes only will be stored, if the newsletter is saved by **Save** or **Save & Close**. **Close** or **Cancel** discards the changes.

### Tab *HTML newsletter*

In the second step you now are able to edit the content of the newsletter in the HTML format. For that the editor selected as default in Joomla!® is used to let you work in your familiar environment.

Have I to write much about here? I think no. Everyone knows best at himself/herself, what he/she wants to communicate in the newsletter.

Before the newsletter content you may give a heading and an intro text to the newsletter. The fields are predefined with the settings of the template, but may be overwritten here. These two fields will not be shown in the editor, for showing this you use the preview.

#### Only one:

The personalisation will be integrated at this step. If you want to address your reader personally, then this will be made at this tab. To do so we asked for last name and/or first name at registration, didn't we?

### Personalisation

For the first name you take the code [FIRSTNAME], the last name will be coded with [LASTNAME] and the full name containing first name and last name with [FULLNAME]. You don't have to memorize this because they are offered as buttons, which inserts the code at cursor position.

If you like to write yourself: Upper cases **and** square brackets belongs to the code!

### Tab *Text newsletter*

Like you are able to adapt the content of the HTML newsletter, you may do this for the text newsletter. As you know it is not possible to embed images e.g. to the text version of the newsletter, which the article of Joomla!® may contain. Such things should be controlled.

Heading, intro text and personalisation works exactly like described in the chapter before.

### Tab *Preview*

In the preview you get a first impression of how the newsletter will look like to the receiver. But you can't see personalized data at this step, because they will be applied just before sending. (Which name of a mailing list, that possibly contains thousands of entries, should the preview show?)



At the top you see the data, with that the newsletter will be sent. Below you find the newsletter in the HTML version and at bottom there is the newsletter in the text version.

The preview by the way is a bit of browser-dependent. At some CSS styles you could see some differences in the HTML newsletter (like they may occur at websites and mail clients in general).

### **Tab Send**

The tab **Send newsletter** again is divided into two parts. The upper part is for the real sending of newsletters, the lower part for sending test newsletters.

Personally, I prefer first to send my newsletters to the test recipients to be sure that all looks like I want to and there slipped in no orthographic mistakes.

#### Hint:

At test sending the links in the newsletter to unsubscribe or edit the subscription doesn't work!

It is suggested to create different test recipients for the most usual mail clients, particularly if you use some special CSS styles.

**The real sending** of the newsletters will be launched at this tab, too. Again here you can set, how many mails will be send per step. e.g., if you have 500 subscribers for this mailing list and the value entered is at the (default) value 100, then BwPostman creates 5 queues each with 100 receivers, that will be processed subsequently with the entered delay time.

You also may set, if the sending of the newsletter shall take place to unconfirmed subscribers, too.

With a click to one of the buttons **Send newsletter**, **Send newsletter and publish** or **Send test newsletter** (or also to **Send** in the list of newsletters, see below), the newsletter will be personalized for each recipient, delivered to a queue and processed in the queue. While doing this, a pop-up occurs, where you can see, how the single recipients will be processed. A progress bar shows the execution.

Newsletters are not published automatically, if they are sent by the button **Send newsletter**. Published means that they may occur in the front-end. But there may be the desire to publish newsletters for front-end by sending the newsletter, therefore there is the button **Send newsletter and publish**. If you select a start date for publishing at first **tab General Information**, then you should use the button **Send newsletter and publish**, because only published newsletters will be shown in front-end.

## Tab *Queue*

Once the queue is built, the open pop-up will close and you touch down at the overview of the newsletters. While the queues are not completely processed, you will see a third tab named **Queue** beside the tabs **Unsent newsletters** and **Sent newsletters**.

Normally the queue will be handled within seconds. Thus the tab **Queue** only occurs, if the newsletter can't be sent because of technical reasons. May be, the configuration for mailing in Joomla!® is improper (**System** → **Configuration** → **Server**, section **Mailing**) or the server, that is responsible for sending newsletters – more precisely sending mails within Joomla!® – is not reachable.

If there are other reasons responsible, that a newsletter can not be delivered, then it doesn't matter BwPostman or Joomla!® but the mail server, that is entered in the configuration of Joomla!®. If the mailbox quota exceeds or the recipient may not be found, then you won't see this in the queue!

Delivering a newsletter will be tried twice for a recipient, then BwPostman tries the next recipient. A higher number of trials doesn't make sense, because if there are technical problems, they won't be corrected as shortly, that a higher number of trials will help.

When the technical problems are removed, then the queue can be executed anew with a click to the button **Continue sending**. Before doing so, you have to reset sending attempts with the button **Reset sending attempts**.

If there are entries in the queue and you send another newsletter, these entries also will be processed, if the sending attempts are reset.

Also you may empty the queue with the button **Clear queue**.

### **Caution:**

A newsletter, that once reached the queue, considers as sent for BwPostman, even delivering was not possible due to technical reasons!

## Button *Send*

Newsletters may be sent directly from the list of unsent newsletters. To do so, select the desired newsletter by clicking to the checkbox in front of the subject and click to the button **Send** in the toolbar. But it is not possible to send more than one newsletter at once. If there are selected multiple newsletters to send, BwPostman only take the first selected newsletter to send, because:



After the click to **Send** the newsletter will be opened to edit and BwPostman immediately shows the tab **Send newsletter**. Further procedure is like described in previous chapter **Tab Send newsletter**.

## Sent newsletters

If the newsletter is sent it moves from the list of unsent newsletters to the list of the sent newsletters. In this list you may take a look at the newsletter, but changes to content and other data concerning sending are no longer possible. A click to **HTML Newsletter** opens the HTML version in a window, a click to **Text Newsletter** the text version.

A click to the subject of the newsletter opens a view to change publish-up and publish-down, state and the description afterwards.

In the list of sent newsletters you also can publish the sent newsletters to be able to show them in the front-end. An unpublished newsletter will not be shown in the front-end.

Default status after sending is unpublished unless you have sent the newsletter using the button **Send newsletter and publish**.

## Creating Menu Entries For The Front-end

To see sent newsletters not only as email, BwPostman offers the ability to create menu entry points for front-end.

You are free to decide, if you create an own menu for BwPostman or if you add single menu entries to an existing menu and which menu entries you offer your visitors. I suggest to create at least one menu entry to edit the subscription. This is especially important, if you do not use the module for subscription.

For subscription it is not critical, whether you use the module or a menu entry to the subscription page of the component. It depends on how you are interested to get subscribers. While the subscription page of the component is only reachable by the menu entry, the module for subscription will be shown on all pages, that are selected in module options.

Another difference is, that the module for subscription needs space on all pages, where it is shown, while the page to subscribe of the component only shows on one page in the area, that is used for articles on Joomla!®.

For menu entries you may select:

- Newsletter registration
- Edit newsletter subscription
- Published newsletters (overview)
- Published newsletters (single view)

The procedure is as usual in Joomla!®:

In the back-end add further menu entries to an existing menu or create a new menu with the desired menu entries.

## Newsletter registration

### Edit newsletter subscription

There isn't much to say to these two menu entries. They are simple links to the appropriate pages. The details you find in chapter **Configuration** and there at **Registration**.

### Published newsletters (single view)

At this menu entry at tab options you find the possibility to determine, if the attachment (as link) shall be shown or not, if someone exists. There are three possibilities:

- **Use Globals**

The value set in the options of the component is used.

- **Show**

The link to the attachment is shown, even if the options of the component says something else.

- **Hide**

The link to the attachment is not shown, even if the options of the component says something else.

### Published newsletters (overview)

This is the menu entry with the most options.

Most of these settings you find here are the same like at the options of the component at tab list view. I don't describe them here again. The selection options are **Use Globals**, **Show** and **Hide**. The meaning is the same as described in single view.

Filters are only shown, if there is a need for.

New is **Newsletter Selection** with the alternatives (constraints see below)

- **All**

All published newsletters are displayed, archived, too.

- **All but not archived**

All published newsletters except archived are displayed.

- **neither archived nor expired**

Shows all newsletters, which are not archived and not expired. Expired means, that publish-down date is not overridden.

- **not archived but expired**

Here all newsletters are displayed, which are not archived, but should actually not be shown in front-end. That is useful, if there are a lot of newsletters in the list. In this case, you may create one menu entry, that shows actual newsletters and another menu entry, which shows older newsletters, since they are not archived.

- **only archived**

This setting shows all archived newsletters, no matter whether expired or not.

- **only expired**

With this option all expired newsletters will be displayed.

- **archived and expired**

With this option all expired newsletters are shown.

- **archived or expired**

Last but not least there is a possibility to show all newsletters, which are either archived or expired.

## Constraints

1. In front-end only published newsletters are displayed.
2. Only newsletters are displayed, which fulfil the criteria at Recipient selection and Campaign selection.

If a newsletter belongs to a mailing list, that is not selected, the newsletter is not displayed. If a newsletter belongs to several mailing lists, from which at least one is selected, then it will be displayed. If a newsletter belongs to a mailing list, that is not selected, while it also belongs to a selected user group, the newsletter is displayed and vice versa.

If a newsletter belongs to a campaign, that is selected, then it is displayed, even if the related mailing list is not selected. Because of this there is the separate tab to select the campaigns.

## Check access

You eventually ask, what this option is good for. Why access restrictions, if it is levered out here? To this the following deliberations:

You don't want the content of a just sent newsletter to be accessible to all. After one or two years these information is so "old", that it does not matter, if all visitors may see it. But in BwPostman there is no possibility to change the assignment to the mailing lists, if the newsletter once is sent and that is a good thing, too. But changing the access level of a mailing list is no option, because the mailing list is still active. How to get the newsletter accessible to the community? For that reason this option exists!

The accessibility is always checked, if you select **All** at mailing list selection, user groups or campaigns, there is no change. But if you select specific mailing lists, user groups or campaigns ( you also may check all), then you are able to suppress the check for access with this switch.

### **Recipient selection**

### **Campaign selection**

I think, there is no need to write more, that is obvious. Perhaps it is to mention, that there is a column to display, if a mailing list or campaign is archived.

## The Front-end

The Front-end usually shows the module of BwPostman at a module position to enable the visitors to subscribe to the (several) mailing lists.

As mentioned previously only the mailing lists will be shown here to which the visitor has access to. If only one mailing list is selectable, then the select list will not be shown to save a needless click. Is no mailing list available that the visitor may subscribe to, a warning message is displayed instead.

In front-end you are able show an overview of all newsletters, if a menu entry is created. The titles (subjects) of the newsletters are linked to show the single newsletter. Unpublished newsletters will **not** be displayed in the overview. Which newsletters are displayed you set at the options of the component and may override it in the options of the menu entry.

It is also possible to create a menu entry for a single newsletter.

**Filters**, that means select lists for mailing lists, user groups or campaigns, only are displayed, if there is something to select. If there is only one mailing list available to display, then a select list is redundant, because there is nothing to select and select lists are not displayed even if there is set something else at the options.

## Edit newsletter subscription

Finally you should enable the subscriber to edit or to delete his subscription while visiting the website. For this you also can create a menu entry in the front-end.

Editing the subscription for subscribers without user account in Joomla!® works with Double-Opt-In, too: If the subscriber clicks at this menu entry, it will be asked for his email address. To this address a link will be sent to edit the subscription, provided the subscriber has entered the correct email address. Clicking to this link the subscriber will be conducted to the web page, at that he/she may edit or delete the subscription.

Subscribers with an user account in Joomla!® are able to edit their subscription directly.

### Hint:

At the end of each newsletter there are links to unsubscribe and edit the subscription. For Germany this is mandatory! A click to the link **unsubscribe** will not be processed immediately since version 1.2.0. This lead to remove the complete subscription, even if only this specific mailing list should be unsubscribed.

This behaviour also is mentioned as a problem, if a newsletter was forwarded. If the recipient of the forwarded newsletter clicked to unsubscribe, the origin subscriber was unsubscribed!

Because of that this link also leads to the page to edit subscription. Beneath the selectable mailing lists there is a checkbox to unsubscribe the whole subscription at once. The expense for the subscriber isn't grown essentially.



## Advanced Use

### Campaigns

Several newsletters, that are build on one another and/or correlate thematically are called campaigns in BwPostman. Campaigns are used e.g. to launch, relaunch or promote a product or a service and in this case have few to do with a common newsletter, that first of all serves for information. Nevertheless the newsletters belonging to campaigns also are displayed in the list of newsletters. Additionally, newsletters of campaigns you can see in the details of the campaign at the particular tabs.

Campaigns may be used, but it is no must. They only give you the ability to give a structure to your newsletters.

Have I to write how to create or edit a campaign? That happens like all other parts of Joomla!® or BwPostman.

A campaign at tab **Campaign details** owns a title, which is mandatory, and a description, which is useful for orientation. A subscriber does not see this description.

Since version 1.2.0 the recipients of a campaign you set here. Therefore below title and description a section exists, at which you may select mailing lists and/or user groups. It is absolutely the same dialogue like at newsletters.

For information there are listed all newsletters of a campaign at the tabs **Unsent newsletters** and **Sent newsletters**.

### Import and Export

BwPostman offers the ability to import subscribers. The accepted formats are XML and CSV. You also are able to export your subscribers. The used formats are XML and CSV as well.

To see how the data looks like in the respective formats, demo data are supplied. You will find them in the admin-folder of the component (<path-to-your-Joomla-installation>/administrator/components/com\_bwpostman). They are named import\_demo.csv and import\_demo.xml.

### Import Subscribers

You call the import with the button **Import** at the toolbar in the sub-menu **Subscribers** of BwPostman. The button is not visible at test recipients.

First you have to select the format, XML or CSV. Only then the button **Browse...** will be enabled, with that you can select the file to import. If you import a CSV file, then you have

to enter the CSV delimiter as field separator and the CSV text separator and whether the file contains the field names in the headline.

For field separator there are available *comma*, *semicolon*, *tabulator* and *space*. For text separation you can select *no separation*, *apostrophe* and *double quote*. For best practise at CSV files you will find a detailed guidance below.

XML files don't need this informations naturally.

With the button **Further** you go to the next view. Here you allocate the data from the file to import (in the right list) to the fields of BwPostman (in the left list). Important here is to match the same order at the left and right. The order of the import fields will be adjusted in the right column. To do so highlight the name of the data field and click to the button **up** or **down** under the select list.

Also fields, that only exists in one of the select lists, have to be removed. This will be done with the button **Remove** below the corresponding select list.

Then you select the mailing lists, to which the subscribers shall be added. Here, too, the mailing lists are divided into three: At the left the mailing lists that are public, in the middle the mailing lists that only can be subscribed by special user groups and in the right the mailing lists that only can be assigned in back-end by the webmaster or a person with appropriate permissions.

Below you set the default email format that will be allocated to the subscriber in case there is no entry in the committed data. Finally you set, whether the subscriber gets an email to confirm the registration (check box not marked) or to confirm the subscriber while importing.

This setting only takes effect, if the data to import contain nothing else. If you exported the subscribers of BwPostman with their state before and now you import these data, this setting takes no effect.

The import will be processed by clicking the button **Import data**.

Hint:

In BwPostman (like Joomla!®) it is not possible to create one or more subscribers with one and the same email address. But it is possible to create two equal test recipients – one per mail format – and one subscriber with the same mail address.

If the data to import contains one email address multiple times with the same settings (regular subscription, test recipient HTML, test recipient text), then it will be imported only the first set of data of this email address.

If an email address already exists in BwPostman, then all sets of data with this email address will be skipped while importing. In each case of skipping you get a message at end of importing.

### **Caution:**

In countries with mandatory double-opt-in-procedure the handling with automatic confirmation while import possibly is improper! A proper usage may be the import of subscribers from another newsletter system.

### **Hint:**

Mail clients often offers a lot of data fields in their address manager. You principally should restrict the export of the address data to that data fields BwPostman is able to import: last name, first name, mail address and mail format. The field **status** only concerns the internal state of a subscriber in BwPostman and is normally only of interest while importing data, that were exported from BwPostman prior. Status 1 means the subscriber has confirmed his subscription, 0 is an unconfirmed subscription and status 9 means test recipients.

If it is not possible to restrict the data to export from mail client or other program, then I suggest to export the data to CSV. This file can be cleared out by a program, that can handle CSV files. Well done is this by CALC from the OpenOffice-Series (Apache OpenOffice, LibreOffice, ...).

## **Surest Strategy To Import CSV Files**

Open your CSV file with OpenOffice. There is a portable version of this program, that only has to be unpacked and called. OpenOffice is a sure candidate for functional CSV files.

Apache OpenOffice (other versions of OpenOffice eventually have different labels) shows a dialogue while opening a CSV file, where you can select character set, with which the file is written, field separator and text separator and more. But OpenOffice recognizes really well, which conditions are set. If you take changes here, then you can examine these changes in the section below. A click to OK opens the file.

Because BwPostman only uses first name, last name, email address, email format and state, you should remove the columns BwPostman don't need. That eases following work. If email format is given, but as text – e.g. HTML/text – then you can enter the values 0 for text and 1 for HTML by **Edit → Find & Replace**.

Following save the file by **Save As** as CSV file with UTF-8, field separator (best is semi-colon) and text separator double quote. These settings you reach by checking **Edit filter**

**settings.** OpenOffice asks, whether you want to keep current format – that is CSV – or ODF format. It is imperative to click to **Keep Current Format.**

Next dialogue is preset with the selections while opening the file. But that settings not always are the best, take care. Ensure the checkbox **Quote all text** cells is selected.

Now the CSV data are treated in a manner, BwPostman may import.

So far the settings **UTF-8, ;** and **"** did work properly, whilst the data **did not come from Excel**, because Excel makes a BOM, absolutely unusual and hardly to exercise.

A text separator particularly is important, if spaces and special characters occurs at first name or last name. These characters bring trouble upon import (empty or broken data sets).

It is indeed recommended to use double quote as text separator, because the chance to occur in a name is really little, while a single quote may occur in name affix. Think of names like D'Angelo...

## Export Subscribers

You call the export with the button **Export** in the sub-menu **Subscribers** of BwPostman. First you select to export in XML or CSV format. While exporting to CSV you have to enter the delimiter, that separates the fields and which text separator shall be used.

For field separator there are available *comma, semicolon, tabulator* and *space*. For text separation you can select *no separation, apostrophe* and *double quote*. If you want to import the data to BwPostman later, it is recommended to use double quote. I have explained detailed at Import, why to do so.

At XML files these fields are not displayed.

Next you select, whether confirmed and/or unconfirmed subscribers and/or test recipients will be exported. You also can determine to export only not archived, only archived or all subscribers.

Finally you select the fields to export.

### **Caution:**

You have to remove the fields, that you don't want to export!

With click to **Export data** the export file will be created and saved locally.

## Batch Processing at Subscribers

With batch processing at subscribers it is possible to subscribe a further mailing list, to move from one to another mailing list or to unsubscribe from a mailing list multiple subscribers at once. Especially with filter by mailing list this is a very strong tool! Moving only works, if you filter by mailing list. The filtered mailing list is that one, from which the subscribers are taken off.

Batch processing is very simple: Tick the checkbox in front of the subscribers, you want to edit. Then click to the button **Batch** at the toolbar. A popup appears, at which you select the desired mailing list and the action *Subscribe*, *Unsubscribe* or *Move*. A click to **Process** processes the selected action.

## Archive and Restore

Archive is exactly that what the name says: To archive something.

In BwPostman you can archive newsletters as well as subscribers as well as mailing lists and even whole campaigns and templates. All, BwPostman has to deal with, you can archive. And all what is archived, can be restored from the archive. But in the archive you can't change anything except the state of a newsletter.

To archive e.g. a newsletter go to the overview of the newsletters (mostly is wanted to archive sent newsletters), mark the select box it front of the row of one or more newsletter(s) to archive and click in the toolbar at the button **Archive**. BwPostman shows a confirmation prompt to surely archive the selected newsletters, that you can answer with **Ok** or **Cancel**.

For restoring you select the appropriate tab in the archive, select the desired newsletter(s) to restore, and click at toolbar to **Restore**.

Archiving mailing lists, subscribers, campaigns and templates works the same. At campaigns there is an additional question, whether the newsletters assigned to the campaign shall be archived or restored, too.

## Delete

The archive contains an additional function: It is not possible to delete something in the lists of newsletters, subscribers, campaigns, mailing lists and templates. Deleting only is possible in the archive. Here, too: Mark the desired to delete in the appropriate tab at the select box and click on **Delete** at right top. Here also you have to answer a confirmation prompt. And also an additional question appears at campaigns to delete the assigned newsletters or not, too.

## Check-In

The button **Check-In** you find in each list view of BwPostman. With this button you may check-in entries that are orphaned. You recognise these entries at the lock symbol at the beginning of a row.

### Caution:

Not all entries, that show a lock symbol, are orphaned! Rather in the contrary. The lock symbol shows, that an entry is edited. The entry indeed becomes an orphan, if you don't leave editing of the entry by buttons but closing the browser or tab, the browser or pc crashes or something else.

To check-in tick the checkbox with the lock symbol and click to the button **Check-In**. To check-in you need administration rights.



## Adjust The Look In The Front-end

To adjust the look of BwPostman to fit your template, ***basic knowledge of CSS and HTML is necessary***. And you should have installed an extension in your browser to inspect the currently displayed page. For Firefox, my preferred browser, there exists a great extension called ***Firebug***. Such an extension also exists for Internet Explorer and in Chrome and Opera such a functionality is already implemented.

All elements, that are shown in the front-end, may be addressed individually at least since version 0.9.7 of BwPostman. The exact CSS path to the element you may find easily with above-mentioned extension. For all elements, BwPostman uses in front-end, CSS Styles exists in the CSS file delivered with BwPostman. Most of them are empty and may be filled if needed.

For the component you find this file at

<Joomla-installation-directory>/components/com\_bwpostman/assets/css/bwpostman.css

For the subscription module it is the file:

<Joomla-installation-directory>/modules/mod\_bwpostman/css/bwpostman.css

For the overview module it is the file:

<Joomla-installation-directory>/modules/mod\_bwpostman\_overview/css/bwpostman\_overview.css

You might change the CSS Styles in this files. But that only would reach until the next update of BwPostman, because while updating the file is set back to initial settings.

Another possibility is to set the desired CSS Styles in a CSS file of your template. But alike before there is still the problem, that the changes only last until the next update of the template.

This is the reason I implemented a solution on a permanent basis since version 0.9.7 of BwPostman:

Create a file named com\_bwpostman.css for the component, one file called mod\_bwpostman.css for the subscription module and one file called mod\_bwpostman\_overview .css for the overview module in the CSS directory of the template you use. Even better: Copy the delivered CSS files to this location. These files will be read from BwPostman after all other CSS files. This means, that the CSS styles set in these files, override all previous read CSS styles.

Thus the path to these CSS files is:

<Joomla-installation-directory>/templates/<your template>/css/



## Templates - Adjusting the appearance of a newsletter

Since version 1.1.0 BwPostman has a great template system for newsletters. Many thanks to Karl Klostermann for this. It is not only his idea, he realized it. Very great!

Thanks to the provided **default templates** for HTML and text newsletters, it is now also possible for less experienced users to send out optical attractive newsletters, that meets the corporate identity, the appearance of the association or or or and really looks well on mobile devices. Simply copy one of the delivered templates, give a new name and make changes to your wishes.

For the experienced user there also are **free templates** for HTML and text newsletters. Here you are completely free in design. Important to know, that despite of the high grade of freedom the newsletter finally gets added a table with the imprint by BwPostman.

You may create as many templates as you want. In example you may create an own, individual template for each mailing list.

Templates will be assigned to the newsletters while creating a newsletter. There you select the desired template from lists of HTML and text templates. To simplify the selection, a thumbnail will be shown at the tooltip.

One each HTML or text template you can set to default. This then is the preselection, if you create a new newsletter.

Like all other sections of BwPostman you reach the templates by main menu of BwPostman with a click to templates. With the buttons **Add HTML-Template** and **Add Text-Template** you create a free HTML or text template. Templates also are reached by main menu of Joomla!® with **Components → BwPostman → Templates**.

### **Caution:**

If you change a template of an existing newsletter, then all additional input, that you made in editor, will be lost. This is the same behaviour like you know doing changes at selected content in first tab while editing a newsletter. Unfortunately there is no other solution feasible.

## Install Templates

Since version 1.3.0 of BwPostman there is a possibility to install further standard templates. To do this there exists a button **Install template** at the toolbar. A click to the button leads to a view, where you may select and install the template package. The packages is a ZIP archive – as usual at Joomla!® – , that will be installed with a click to the button **Start template installation**. Now a view appears, where you see the single steps of the

installation of the template. A click at the button back leads you back to the list of templates. Afterwards the new template is available like all other templates for the use at a newsletter.

New templates you may get at the [downloads](#) for BwPostman at Boldt Webservice.

## Standard Templates

Standard templates are predefined templates for newsletters, that you may use directly. The title of the included standard templates begins – who wonders – with standard. They all are responsive. That means, that they look well even on small displays, which occurs on mobile devices. Nevertheless standard templates can be individualized widely. To keep out of harm's way I suggest to copy a provided template and then adjust. If an adjustment is not possible with one provided template: Perhaps it is possible with another?

At the left you make the adjustments, at the right you see a preview of the template, that will be refreshed by clicking to **Refresh preview**. A refresh also will be done, if the template will be saved.

## Tab Generals

Here you do the general settings to the template. The template gets a name and a description, you set the width of the newsletter as also the font size, the space and the colour for font and background of the various sections. Here you also may select a little image, a so called thumbnail. This image is shown in the list of the templates as preview and in the tooltip at the select list, if you create a newsletter.

### **Caution:**

This preview image is not identically to the preview at editing a template! The preview while editing is dynamically and can be refreshed again and again, while the thumbnail is a static image, in example created with a screenshot.

This preview image is not created automatically by BwPostman! You can create such a preview image, if you take a screenshot of the newsletter. You quite may take the screenshot from the preview while editing the template. BwPostman looks for preview images in the folder <Joomla-installation-directory>/images/bw\_postman. Here you have to upload the saved image. Uploading you can do with Media Manager if Joomla!®, which you will find at **Content → Media Manager**.

## Tab Header

Here you define the header, with which the newsletter begins. It consists by logo and/or text. You can select whether show only the logo, only the text or both in the header of the newsletter.

If you chose logo and text, then alignment **Left** or **Center** means, that the logo is shown at left and the text at right. **Right** means, that the logo appears at right and the text at left.

If you select **only logo** or **only text**, then alignment works as expected.

The text can be entered in two lines, for which you may select different font sizes. The colours for font, background and shadow of header you also chose here. Shadow only works with standard template Deep Blue.

## Tab Intro

In the newsletter then follows the intro with a heading and a text. The text can be personalized. Place the cursor to the desired place in intro text and click to the button **[FIRST-NAME]**, **[LASTNAME]** or **[FULLNAME]**.

You can select, if the intro will be used or not. Furthermore you can change the heading as well as the text in newsletter at the tabs **HTML-Newsletter** and **Text-Newsletter**.

## Tab Articles

After that the single articles follow. The single articles may be divided by a divider, for which you may select a colour. In addition you can set, if the author of the article and the creation date shall be shown.

You may add a button **Readon** for each article. This is useful, if you only want to show a teaser in Newsletter to read the full article at your website. For this button **Readon** you can select colour of font, the button and the shadow.

### Caution:

If there are changes to a standard template afterwards, that impacts the article (in example width of newsletter, background colour of articles, font colour, show author and so on), at an existing newsletter you have to switch to another template and switch back to this template or you have to change selected content, to adopt the changes. Unfortunately there is no other solution feasible.

## Tab Footer

In the footer most of all is the legal information: The legal information from the options of BwPostman may be switched on and off and you may define an address block. Also for the footer of the newsletter you can select colour of font, background and shadow comfortably.

Finally you may define until five buttons for social media or your own proposals. The buttons have a common heading. Each button may be configured individually with settings for the colours of font, button and shadow. You can comfortably enter the label and the link target.

The only thing, you can not adjust, are the links for unsubscribe, edit subscription and the link to the website at the end of the newsletter.

## Free Templates

Free Templates for newsletter are exactly that what the name says: Free! Free in positioning of the elements, free in the look of the elements. However this freedom has its price: There are no predefined sections, that you may adjust fast and easy only by clicking with the mouse. Here all is "handmade". There are provided samples for each HTML and text templates. The title begins with Sample / Beispiel.

Because there are no predefined sections, there only are three (HTML Templates) or two (text templates) Tabs.

Here, too, counts: In the left you make your settings, in the right you see a preview of the template, that will be refreshed and updated by clicking to **Refresh preview** or saving the template.

## Tab Generals

Here you enter a name and a description for the template and you can select a little image, a so called thumbnail. This image will be shown in the list of the templates and in tooltip at the selection list while creating a newsletter.

### **Caution:**

This preview image is not identically to the preview at editing a template! The preview while editing is dynamically and can be refreshed again and again, while the thumbnail is a static image, in example created with a screenshot.

Then you set, if the author and/or the creation date of the article shall be shown and if there shall be a button **Readon**.

**Tab *Template CSS***

This tab naturally does only exists at HTML templates. This is the section where you enter the CSS styles. CSS knowledge is needed and only pure CSS code is allowed!

**Tab *Template HTML/Template Text***

Here you may compose your HTML framework for the newsletter. Under the editor you find several buttons for personalisation, content, unsubscribe link, edit link and the imprint.

Simply set cursor at the desired position in editor and click to the button.

## Maintenance

Since version 1.0.1 of BwPostman you have the possibility to save and restore the tables of BwPostman. Additionally these tables can be checked. If errors occur, then they will be repaired automatically. That works very reliable, but a hundred-percentage-guarantee I cannot give.

With this you have the possibility to de-install a totally shot to pieces installation of BwPostman and install BwPostman anew without losing mailing lists, newsletters, campaigns, subscribers or templates.

### Therefore this hint, too:

Save your data! This can be done with save tables from BwPostman. The reflection: "*If I do some repair and something goes down in drain, then the fat's in the fire.*" prompted me to code a backup routine. But the best and latest backup will be worth nothing, if I can't restore it in worse case. Furthermore it gave a restore tables, too.

Maintenance is called from main menu of BwPostman or from sub-menu. Beside basic settings, with that BwPostman can be configured and the link to the forum there are three buttons: **Check and repair tables**, **Save tables** and **Restore tables**.

## Check and repair tables

**With one click** to this button the tables were checked by reference to the SQL installation file of the installed version of BwPostman. The result of the check and the repair attempt is shown step by step in an overview. With the button **Back** in the toolbar you get back to maintenance.

Internally the check works as follows:

First will be checked, if there are all needed tables in place. Missing tables are created. Next will be checked, if there are some tables having BwPostman in their name, but are not needed (e.g. remaining from a previous installed version). These will be deleted if any.

In the next step each table is checked for engine, default character set and primary key and will be corrected if needed.

Following each table will be checked for column names and attributes (also called properties) of the columns. Divergences are corrected, too.

In the second last step the Asset-IDs of the data sets of all tables will be checked. If there is no Asset-ID, there will be an attempt to create one. With a missing Asset-ID it is not possible to delete an item. If creating the Asset-ID fails, then you once have to open the



item manually in back-end and save it. E.g. the Asset-ID misses, if you read in the tables of BwPostman directly to the database, e.g. with phpMyAdmin.

Finally it will be checked, if the entered User-IDs matches them of Joomla!® and they will be corrected if needed, too. This happens by comparing the email addresses of the subscribers with the email addresses of the users of Joomla!®.

Well, this is an attempt to find and correct essential errors as well as not as urgent problems. The essential errors are displayed in red, lesser problems occur in yellow-orange. If such appears in the overview, the result follows right below. Only when the result is red there is an error that cannot be corrected automatically.

## Save tables

Backup of tables is suggested from time to time, especially before a check/repair of the tables, nobody knows...

**With one click** at the button **Save tables** structures and data of the tables are assembled in XML formatted file and a browser window is shown, which asks what to do with this file. It is useful to save the file (locally). Remember well where the file is to find, perhaps it will be needed some time!

Since version 1.3.0 of BwPostman the access rights of the component, the tables and the individual items are saved. Because the access rights are closely related to the user groups, the user groups and their parent groups, for which are assigned access rights for BwPostman, are saved also.

## Restore tables

Restoring tables won't work with one click:

One click to the button **Restore tables** lends to the view, where you may select the backup file. The click at **Start restore** starts restoring tables to the database.

**Caution:** With this click all existing tables of BwPostman will be deleted from database and only the backup data are available afterwards!

Immediately after restoring the tables will be checked by above-mentioned manner to ensure, that the structure of the restored tables fits the installed version. Certainly the result is displayed.

With the button **Back** you get back to maintenance.



***Also important to know:***

***Restoring of tables only works with backup files made by BwPostman!***

Since version 1.3.0 of BwPostman the access rights of the component, the tables and the individual items are saved. Because the access rights are closely related to the user groups, the user groups and their parent groups, for which are assigned access rights for BwPostman, are saved also.

At restoring the tables the structure of the user groups will be restored. While doing so, BwPostman checks by means of the name of the user group, if the user groups deposited at the backup are still present. If this is not the case, BwPostman creates the correlate user group and the parents anew at Joomla!®. For that the access rights of the restored version not to come to nothing, the IDs of the user groups, that are deposited at the access rights, are rewritten to the new IDs.

## **Migration of BwPostman to another Joomla!® Installation?**

When you read the above, you may wonder: Am I able to migrate from one Joomla!® installation to another by ***Save tables*** and ***Restore tables***?

The answer is: Yes, conditionally and if BwPostman is installed at this installation of Joomla!®.

Mailing lists and campaigns are absolutely not the problem. By this reason – among others – there is the check and pacing of stored User-IDs while check and repair tables, if possible.

There are more difficulties with the newsletters. Beneath the HTML version and text version BwPostman stores the IDs of the articles. If the articles of Joomla!® are exactly the same, that means textual and with ID, then there are absolutely no problems. But if content or IDs differ, or content, so that the newsletter possesses an ID, in the new installation have a completely different article, there will be at last a problem editing the unsent newsletters in the new installation.

***Its the best to test such things with a Joomla!® installation that is designated to test, before you do it to a production environment.***

## Warning messages

In particular situations warning messages are displayed in back-end of Joomla!®, caused by BwPostman. I was very willing to catch all messages, for that no messages are displayed. But in some cases there is no chance to do so, for that messages are displayed from time to time.

The warning messages occur, when

- Joomla!® **Error Reporting** is set to **Maximum** or **Development** at **System → Global Configuration → Server**
- and/or **display\_errors** is set to **ON** in **php.ini** of the server

## Appendix

### GNU Free Documentation License

Version 1.3, 3 November 2008

Copyright © 2000, 2001, 2002, 2007, 2008 Free Software Foundation, Inc.

<<http://fsf.org/>>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

#### 0 PREAMBLE

The purpose of this License is to make a manual, textbook, or other functional and useful document "free" in the sense of freedom: to assure everyone the effective freedom to copy and redistribute it, with or without modifying it, either commercially or noncommercially. Secondly, this License preserves for the author and publisher a way to get credit for their work, while not being considered responsible for modifications made by others.

This License is a kind of "copyleft", which means that derivative works of the document must themselves be free in the same sense. It complements the GNU General Public License, which is a copyleft license designed for free software.

We have designed this License in order to use it for manuals for free software, because free software needs free documentation: a free program should come with manuals providing the same freedoms that the software does. But this License is not limited to software manuals; it can be used for any textual work, regardless of subject matter or whether it is published as a printed book. We recommend this License principally for works whose purpose is instruction or reference.

#### 1 APPLICABILITY AND DEFINITIONS

This License applies to any manual or other work, in any medium, that contains a notice placed by the copyright holder saying it can be distributed under the terms of this License. Such a notice grants a world-wide, royalty-free license, unlimited in duration, to use that work under the conditions stated herein. The "Document", below, refers to any such manual or work. Any member of the public is a licensee, and is addressed as "you". You accept the license if you copy, modify or distribute the work in a way requiring permission under copyright law.

A "Modified Version" of the Document means any work containing the Document or a portion of it, either copied verbatim, or with modifications and/or translated into another language.

A "Secondary Section" is a named appendix or a front-matter section of the Document that deals exclusively with the relationship of the publishers or authors of the Document to the Document's overall subject (or to related matters) and contains nothing that could fall directly within that overall subject. (Thus, if the Document is in part a textbook of mathematics, a Secondary Section may not explain any mathematics.) The relationship could be a matter of historical connection with the subject or with related matters, or of legal, commercial, philosophical, ethical or political position regarding them.

The "Invariant Sections" are certain Secondary Sections whose titles are designated, as being those of Invariant Sections, in the notice that says that the Document is released under this License. If a section does not fit the above definition of Secondary then it is not allowed to be designated as Invariant. The Document may contain zero Invariant Sections. If the Document does not identify any Invariant Sections then there are none.

The "Cover Texts" are certain short passages of text that are listed, as Front-Cover Texts or Back-Cover Texts, in the notice that says that the Document is released under this License. A Front-Cover Text may be at most 5 words, and a Back-Cover Text may be at most 25 words.

A "Transparent" copy of the Document means a machine-readable copy, represented in a format whose specification is available to the general public, that is suitable for revising the document straightforwardly with generic text editors or (for images composed of pixels) generic paint programs or (for drawings) some widely available drawing editor, and that is suitable for input to text formatters or for automatic translation to a variety of formats suitable for input to text formatters. A copy made in an otherwise Transparent file format whose markup, or absence of markup, has been arranged to thwart or discourage subsequent modification by readers is not Transparent. An image format is not Transparent if used for any substantial amount of text. A copy that is not "Transparent" is called "Opaque".

Examples of suitable formats for Transparent copies include plain ASCII without markup, Texinfo input format, LaTeX input format, SGML or XML using a publicly available DTD, and standard-conforming simple HTML, PostScript or PDF designed for human modification. Examples of transparent image formats include PNG, XCF and JPG. Opaque formats include proprietary formats that can be read and edited only by proprietary word processors, SGML or XML for which the DTD and/or processing tools are not generally available, and the machine-generated HTML, PostScript or PDF produced by some word processors for output purposes only.

The "Title Page" means, for a printed book, the title page itself, plus such following pages as are needed to hold, legibly, the material this License requires to appear in the title

page. For works in formats which do not have any title page as such, "Title Page" means the text near the most prominent appearance of the work's title, preceding the beginning of the body of the text.

The "publisher" means any person or entity that distributes copies of the Document to the public.

A section "Entitled XYZ" means a named subunit of the Document whose title either is precisely XYZ or contains XYZ in parentheses following text that translates XYZ in another language. (Here XYZ stands for a specific section name mentioned below, such as "Acknowledgements", "Dedications", "Endorsements", or "History".) To "Preserve the Title" of such a section when you modify the Document means that it remains a section "Entitled XYZ" according to this definition.

The Document may include Warranty Disclaimers next to the notice which states that this License applies to the Document. These Warranty Disclaimers are considered to be included by reference in this License, but only as regards disclaiming warranties: any other implication that these Warranty Disclaimers may have is void and has no effect on the meaning of this License.

## 2 VERBATIM COPYING

You may copy and distribute the Document in any medium, either commercially or non-commercially, provided that this License, the copyright notices, and the license notice saying this License applies to the Document are reproduced in all copies, and that you add no other conditions whatsoever to those of this License. You may not use technical measures to obstruct or control the reading or further copying of the copies you make or distribute. However, you may accept compensation in exchange for copies. If you distribute a large enough number of copies you must also follow the conditions in section 3.

You may also lend copies, under the same conditions stated above, and you may publicly display copies.

## 3 COPYING IN QUANTITY

If you publish printed copies (or copies in media that commonly have printed covers) of the Document, numbering more than 100, and the Document's license notice requires Cover Texts, you must enclose the copies in covers that carry, clearly and legibly, all these Cover Texts: Front-Cover Texts on the front cover, and Back-Cover Texts on the back cover. Both covers must also clearly and legibly identify you as the publisher of these copies. The front cover must present the full title with all words of the title equally prominent and visible. You may add other material on the covers in addition. Copying with changes limited



to the covers, as long as they preserve the title of the Document and satisfy these conditions, can be treated as verbatim copying in other respects.

If the required texts for either cover are too voluminous to fit legibly, you should put the first ones listed (as many as fit reasonably) on the actual cover, and continue the rest onto adjacent pages.

If you publish or distribute Opaque copies of the Document numbering more than 100, you must either include a machine-readable Transparent copy along with each Opaque copy, or state in or with each Opaque copy a computer-network location from which the general network-using public has access to download using public-standard network protocols a complete Transparent copy of the Document, free of added material. If you use the latter option, you must take reasonably prudent steps, when you begin distribution of Opaque copies in quantity, to ensure that this Transparent copy will remain thus accessible at the stated location until at least one year after the last time you distribute an Opaque copy (directly or through your agents or retailers) of that edition to the public.

It is requested, but not required, that you contact the authors of the Document well before redistributing any large number of copies, to give them a chance to provide you with an updated version of the Document.

## 4 MODIFICATIONS

You may copy and distribute a Modified Version of the Document under the conditions of sections 2 and 3 above, provided that you release the Modified Version under precisely this License, with the Modified Version filling the role of the Document, thus licensing distribution and modification of the Modified Version to whoever possesses a copy of it. In addition, you must do these things in the Modified Version:

- A. Use in the Title Page (and on the covers, if any) a title distinct from that of the Document, and from those of previous versions (which should, if there were any, be listed in the History section of the Document). You may use the same title as a previous version if the original publisher of that version gives permission.
- B. List on the Title Page, as authors, one or more persons or entities responsible for authorship of the modifications in the Modified Version, together with at least five of the principal authors of the Document (all of its principal authors, if it has fewer than five), unless they release you from this requirement.
- C. State on the Title page the name of the publisher of the Modified Version, as the publisher.
- D. Preserve all the copyright notices of the Document.
- E. Add an appropriate copyright notice for your modifications adjacent to the other copyright notices.

- F. Include, immediately after the copyright notices, a license notice giving the public permission to use the Modified Version under the terms of this License, in the form shown in the Addendum below.
- G. Preserve in that license notice the full lists of Invariant Sections and required Cover Texts given in the Document's license notice.
- H. Include an unaltered copy of this License.
- I. Preserve the section Entitled "History", Preserve its Title, and add to it an item stating at least the title, year, new authors, and publisher of the Modified Version as given on the Title Page. If there is no section Entitled "History" in the Document, create one stating the title, year, authors, and publisher of the Document as given on its Title Page, then add an item describing the Modified Version as stated in the previous sentence.
- J. Preserve the network location, if any, given in the Document for public access to a Transparent copy of the Document, and likewise the network locations given in the Document for previous versions it was based on. These may be placed in the "History" section. You may omit a network location for a work that was published at least four years before the Document itself, or if the original publisher of the version it refers to gives permission.
- K. For any section Entitled "Acknowledgements" or "Dedications", Preserve the Title of the section, and preserve in the section all the substance and tone of each of the contributor acknowledgements and/or dedications given therein.
- L. Preserve all the Invariant Sections of the Document, unaltered in their text and in their titles. Section numbers or the equivalent are not considered part of the section titles.
- M. Delete any section Entitled "Endorsements". Such a section may not be included in the Modified Version.
- N. Do not retitle any existing section to be Entitled "Endorsements" or to conflict in title with any Invariant Section.
- O. Preserve any Warranty Disclaimers.

If the Modified Version includes new front-matter sections or appendices that qualify as Secondary Sections and contain no material copied from the Document, you may at your option designate some or all of these sections as invariant. To do this, add their titles to the list of Invariant Sections in the Modified Version's license notice. These titles must be distinct from any other section titles.

You may add a section Entitled "Endorsements", provided it contains nothing but endorsements of your Modified Version by various parties—for example, statements of peer review or that the text has been approved by an organization as the authoritative definition of a standard.

You may add a passage of up to five words as a Front-Cover Text, and a passage of up to 25 words as a Back-Cover Text, to the end of the list of Cover Texts in the Modified Version. Only one passage of Front-Cover Text and one of Back-Cover Text may be added by



(or through arrangements made by) any one entity. If the Document already includes a cover text for the same cover, previously added by you or by arrangement made by the same entity you are acting on behalf of, you may not add another; but you may replace the old one, on explicit permission from the previous publisher that added the old one.

The author(s) and publisher(s) of the Document do not by this License give permission to use their names for publicity for or to assert or imply endorsement of any Modified Version.

## 5 COMBINING DOCUMENTS

You may combine the Document with other documents released under this License, under the terms defined in section 4 above for modified versions, provided that you include in the combination all of the Invariant Sections of all of the original documents, unmodified, and list them all as Invariant Sections of your combined work in its license notice, and that you preserve all their Warranty Disclaimers.

The combined work need only contain one copy of this License, and multiple identical Invariant Sections may be replaced with a single copy. If there are multiple Invariant Sections with the same name but different contents, make the title of each such section unique by adding at the end of it, in parentheses, the name of the original author or publisher of that section if known, or else a unique number. Make the same adjustment to the section titles in the list of Invariant Sections in the license notice of the combined work.

In the combination, you must combine any sections Entitled "History" in the various original documents, forming one section Entitled "History"; likewise combine any sections Entitled "Acknowledgements", and any sections Entitled "Dedications". You must delete all sections Entitled "Endorsements".

## 6 COLLECTIONS OF DOCUMENTS

You may make a collection consisting of the Document and other documents released under this License, and replace the individual copies of this License in the various documents with a single copy that is included in the collection, provided that you follow the rules of this License for verbatim copying of each of the documents in all other respects.

You may extract a single document from such a collection, and distribute it individually under this License, provided you insert a copy of this License into the extracted document, and follow this License in all other respects regarding verbatim copying of that document.

## 7 AGGREGATION WITH INDEPENDENT WORKS

A compilation of the Document or its derivatives with other separate and independent documents or works, in or on a volume of a storage or distribution medium, is called an "ag-

gregate" if the copyright resulting from the compilation is not used to limit the legal rights of the compilation's users beyond what the individual works permit. When the Document is included in an aggregate, this License does not apply to the other works in the aggregate which are not themselves derivative works of the Document.

If the Cover Text requirement of section 3 is applicable to these copies of the Document, then if the Document is less than one half of the entire aggregate, the Document's Cover Texts may be placed on covers that bracket the Document within the aggregate, or the electronic equivalent of covers if the Document is in electronic form. Otherwise they must appear on printed covers that bracket the whole aggregate.

## 8 TRANSLATION

Translation is considered a kind of modification, so you may distribute translations of the Document under the terms of section 4. Replacing Invariant Sections with translations requires special permission from their copyright holders, but you may include translations of some or all Invariant Sections in addition to the original versions of these Invariant Sections. You may include a translation of this License, and all the license notices in the Document, and any Warranty Disclaimers, provided that you also include the original English version of this License and the original versions of those notices and disclaimers. In case of a disagreement between the translation and the original version of this License or a notice or disclaimer, the original version will prevail.

If a section in the Document is Entitled "Acknowledgements", "Dedications", or "History", the requirement (section 4) to Preserve its Title (section 1) will typically require changing the actual title.

## 9 TERMINATION

You may not copy, modify, sublicense, or distribute the Document except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, or distribute it is void, and will automatically terminate your rights under this License.

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, receipt of a copy of some or all of the same material does not give you any rights to use it.

## 10 FUTURE REVISIONS OF THIS LICENSE

The Free Software Foundation may publish new, revised versions of the GNU Free Documentation License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. See <http://www.gnu.org/copyleft/>.

Each version of the License is given a distinguishing version number. If the Document specifies that a particular numbered version of this License "or any later version" applies to it, you have the option of following the terms and conditions either of that specified version or of any later version that has been published (not as a draft) by the Free Software Foundation. If the Document does not specify a version number of this License, you may choose any version ever published (not as a draft) by the Free Software Foundation. If the Document specifies that a proxy can decide which future versions of this License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Document.

## 11 RELICENSING

"Massive Multiauthor Collaboration Site" (or "MMC Site") means any World Wide Web server that publishes copyrightable works and also provides prominent facilities for anybody to edit those works. A public wiki that anybody can edit is an example of such a server. A "Massive Multiauthor Collaboration" (or "MMC") contained in the site means any set of copyrightable works thus published on the MMC site.

"CC-BY-SA" means the Creative Commons Attribution-Share Alike 3.0 license published by Creative Commons Corporation, a not-for-profit corporation with a principal place of business in San Francisco, California, as well as future copyleft versions of that license published by that same organization.

"Incorporate" means to publish or republish a Document, in whole or in part, as part of another Document.

An MMC is "eligible for relicensing" if it is licensed under this License, and if all works that were first published under this License somewhere other than this MMC, and subsequently incorporated in whole or in part into the MMC, (1) had no cover texts or invariant sections, and (2) were thus incorporated prior to November 1, 2008.

The operator of an MMC Site may republish an MMC contained in the site under CC-BY-SA on the same site at any time before August 1, 2009, provided the MMC is eligible for relicensing.

## **GNU GENERAL PUBLIC LICENSE**

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <<http://fsf.org/>>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

### **Preamble**

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modi-

fied versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

## **TERMS AND CONDITIONS**

### **0. Definitions.**

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.



To “convey” a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays “Appropriate Legal Notices” to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

### **1. Source Code.**

The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.



## 2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

## 3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

## 4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

## 5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

- a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
- b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
- c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.
- d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

## 6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three

years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A “User Product” is either (1) a “consumer product”, which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, “normally used” refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

## **7. Additional Terms.**

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

- a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
- b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
- c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
- d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
- e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or
- f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered “further restrictions” within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

## **8. Termination.**

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).



However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

## **9. Acceptance Not Required for Having Copies.**

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

## **10. Automatic Licensing of Downstream Recipients.**

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An “entity transaction” is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is in-



fringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

## **11. Patents.**

A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is “discriminatory” if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

## **12. No Surrender of Others' Freedom.**

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

## **13. Use with the GNU Affero General Public License.**

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

## **14. Revised Versions of this License.**

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License “or any later version” applies to

it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

### **15. Disclaimer of Warranty.**

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

### **16. Limitation of Liability.**

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

### **17. Interpretation of Sections 15 and 16.**

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.