

# BulkMailer User Guide

If you want to run BulkMailer on your PC, this document is for you. In this document, we first ensure that BulkMailer is the program you want to run. Then, we explain how to install BulkMailer on your PC. Finally, we explain how you can send e-mails and manage your address books using the AddressBookManager. First of all, let us see if BulkMailer is what you need.

## ***Is BulkMailer for You?***

Simply put, BulkMailer is a program to send many e-mails. The philosophy behind BulkMailer supports the sending of e-mails that have been solicited by the recipients. The BulkMailer team does not endorse unsolicited e-mail sending, better known as SPAM or UCE. If you use BulkMailer, please make sure that the e-mails you are sending have been solicited. A good way to have your recipients solicit your e-mails is the opt-in technique.

Now that we are sure that the e-mails you are going to send are solicited, let us see more whether BulkMailer is the right program for you. Many e-mail sending programs are available on the Internet. Why should you use BulkMailer instead of another? Or, seen the other way around, at which conditions will BulkMailer assist you better than other programs?

First of all, if you want to use BulkMailer, you will need three things: an Internet connection, an address book of e-mail addresses, and optionally an HTML editor. If you want to send mass e-mails, you probably have the first two. As for the third one, the HTML editor, many free software are available on the Internet. If you type 'html editor' in Google, you will find many options. If you own a commercial HTML editor, you can use it too. Examples of commercial HTML editors are: Microsoft FrontPage, IBM WebSphere Homepage Builder, Mozilla Composer, and MacroMedia DreamWeaver. Finally, e-mail programs like Outlook Express and Mozilla ThunderBird also allow to create simple HTML e-mails. BulkMailer supports all these programs.

The approach of BulkMailer is simple. While external tools can do great jobs at managing an address book and at creating HTML e-mails, BulkMailer focuses on the sending process. Moreover, BulkMailer focuses on what many free bulk-mailing software cannot do: sending HTML e-mails that display properly. Therefore, for sending many text e-mails, you might prefer programs like *blat* for Windows or *mail* for Unix. BulkMailer works for text e-mails but it rocks for HTML e-mails.

Your ISP has set a number of restrictions on your e-mail sending and you want to keep safe with your ISP. Typically, ISPs limit the number of e-mails that can be sent at once through their mail server. For example, our ISP limits the number of recipients to 50 per sending. If we have 2000 recipients to reach, we have to cut our address book in 40 pieces of 50 e-mail addresses, and to send the same e-mail 40 times to each piece of the address book. This is a lot of effort. Also, sometimes, ISPs limit the sending of e-mails to a certain number *per hour*. After the number has been reached, you cannot send any e-mail during the same hour. These problems are answered in BulkMailer. BulkMailer allows to send your e-mails one by one, and throttles down e-mail sending to the pace that is accepted by your ISP. If you want to send e-mails campaigns, you want to keep safe with your ISP and BulkMailer can help you with this.

A solution to sending many e-mails is to put all the recipients in Bcc. If you send the e-mail through an SMTP server that is running locally on your PC, the number of recipients to your e-mail is unlimited. However, a number of problems may arise in this case. First of all, your IP address may be

banned from the network of mail servers outside. This can have severe consequences on your Internet access. Also, you want to make sure that your recipients receive your e-mails and are happy with your salutations to them. When they receive an e-mail that is not addressed to them, it could be understandable that they pay little attention to it. More annoying, Spam filters usually hide e-mails addressed to undisclosed recipients or to unknown addresses. In this case, the content of your message will not reach the recipient attention at all. BulkMailer solves this problem by sending the e-mails one by one. The recipient and his Spam filter cannot realize that the e-mail is bulk. This helps catching the recipient's attention.

Finally, you might want to follow-up your e-mail campaigns. For example, many recipients might answer your e-mail by asking not to be contacted anymore. These addresses should be removed from your address list and you want to make sure of that. In this case, it is important to keep a list of these so-called "opt-out" addresses or to delete them permanently. Also, you may want to merge additional addresses and external address books to increase the size of your address book, that is the number of recipients in your e-mail campaigns. In the merging process, you want the duplicates to be left out, as well as the "not to be contacted any more" opt-out addresses. This process is not supported by address book managers of most mail programs like Outlook Express or Mozilla Thunderbird. In this case, BulkMailer can do it for you. BulkMailer comes with an address book manager that merges your address books while excluding duplicates and opt-out address lists.

In conclusion, if you have an Internet connection, if you have an address book to contact, if you want to contact all of them, if you want to address them personally with their e-mail address specified as unique recipient, if you want to send them HTML e-mails, if you have an HTML editor to create your e-mails, if your ISP has set some restrictions on you sending e-mails, and if you want to keep safe with your ISP in the process of sending mass e-mails, BulkMailer has been made for you.

## ***How to Send e-mails with BulkMailer?***

Once you have installed BulkMailer, configure it by editing the `BulkMailer_config.properties` file. Edition of the configuration file can be made with any text editor, like the Windows Notepad. The BulkMailer configuration file follows the traditional Java properties file directives: each line is either a comment starting with a '#' sign, or a property starting with property name followed by '=' sign and property value.

## **Configuration**

The BulkMailer configuration properties are as follows:

- **smtpserver.name** is your ISP SMTP server name, like the one you provide in your favorite e-mail client.
- **smtpserver.port** is optional and specifies the SMTP server port. Default port is 25. Specify another port number if specified by your ISP, or if you use encrypted connection on another port. For example, Gmail port is 993.
- **smtpserver.encryption** defines the kind of encryption used between BulkMailer and your SMTP server. This property can take three kinds of values: 'none', 'tls', or 'ssl'. No encryption ('none') is the default for most web servers. Still, nowadays SMTP servers tend to encrypt their connections; as specified by your ISP, choose 'tls' or 'ssl'. For example, Gmail SMTP service requires SSL encryption.

- **smtpserver.username** and **smtpserver.password** should also be obvious: provide your ISP SMTP user name and password, like in your favorite e-mail client.
- **from.name** is the name shown in your recipient's 'Sender' column and in the e-mail header display
- **from.address** is the address shown in the e-mail header display, next to the sender name

The screenshot shows the Mozilla Thunderbird email client interface. At the top, there are icons for Reply All, Forward, Tag, Delete, Junk, Print, Back, and Forward, along with a search box labeled 'Subject or Sender'. Below this is a list of emails with columns for Subject, Sender, and Date. One email is selected, and its header is displayed below. The header shows the following information:

- Subject: Next-up News Nr 1174 - Téléphonie Mobile et Saignements de nez (avec témoignages et vidéos)
- From: Next-up news <noreply@next-up.org>
- Reply-To: Next-up news <infos@next-up.org>
- Date: 28/12/09 22:04
- To: NRT JJP

Annotations in the image include an orange circle around the 'Next-up news' sender name in the list and the 'From:' field in the header, with a label 'from.name' pointing to it. Another orange circle is around the '<noreply@next-up.org>' email address in the 'From:' field, with a label 'from.address' pointing to it. A red circle is around the '<infos@next-up.org>' email address in the 'Reply-To:' field.

*Display of **from.name** and **from.address** in Mozilla Thunderbird*

- **replyto.address** is optional and allows to specify a different e-mail address (than the 'From' address) for the recipient to reply to.
- **test.address** is the e-mail address, typically your own, where you can send test e-mails before the actual mass sending.
- **bounce.address** is optional and specifies where the delivery error messages should be returned by the recipient postmasters. If you plan a massive sending to a lot of untested addresses, you might want to redirect the error messages to an alternate mailbox with a lot of free space. Otherwise, your e-mail address will receive all the error messages, with the risk of blocking your e-mail address, just at the moment where your recipients' replies are about to arrive.
- **unsubscribe.address** is optional: specifying an alternate address might allow e-mail clients to unsubscribe automatically from your mailing list, through the specified address.

- **precedence** can take any of three values: 'list', 'bulk' or 'junk'. Most users would choose 'list' or otherwise take the risk of being blacklisted by the recipients' ISP.
- **template.recipient.address** is the template string that BulkMailer replaces with each recipient's e-mail address. Uncomment the line if you do not need the feature. If you need to use the string specified, you can change it. Avoid \ and \$ characters or escape them according to the Java regex syntax.
- **charset** is the default charset to send each e-mail. Set charset to your need if ISO-8859-1 does not suit you.
- **html.file.import.charset** is the default character set to use when importing HTML files. This defaults to your system default charset.
- **pause** indicates the number of seconds to wait between two sendings. This option may be useful when your ISP specifies a maximum number of sendings per hour or day. For example, if your ISP prevents from sending more than 700 e-mails per hour, choosing a value of 10 (seconds) should make you safe from having e-mails rejected.

Once the BulkMailer configuration file has been set up, you can start writing and sending up e-mails.

## E-mail Composition

To compose your e-mail, use your favorite HTML editor. If you have no HTML editor, you can get one free from the Internet. As soon as your e-mail is composed, save it on your hard disk as HTML. Links to stylesheet, body background, and images should be made explicit and relative to the document. If you do not know what this means, read your HTML editor documentation, or pray that everything will work just fine :)

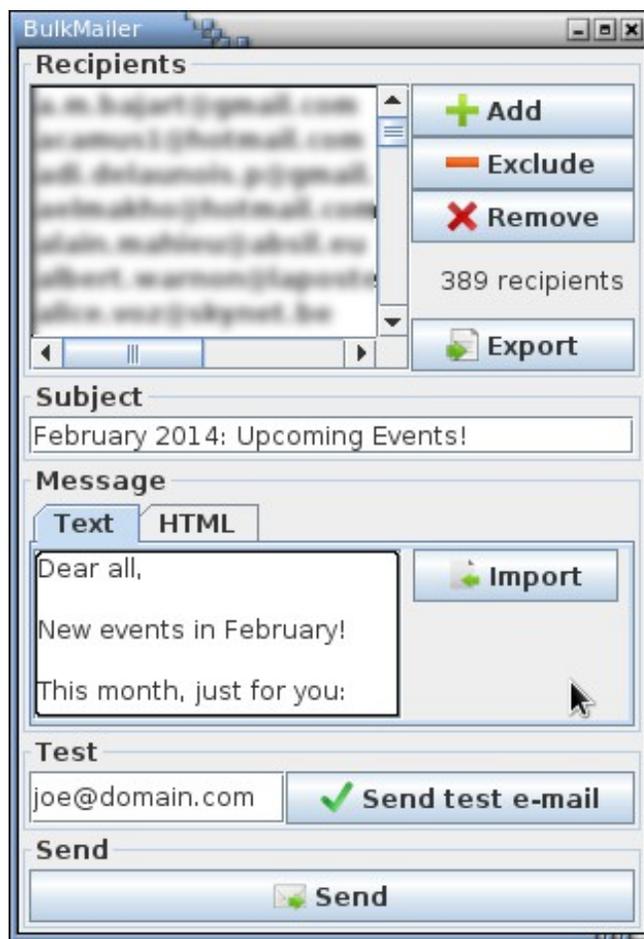
As prescribed in the e-mail international standards, HTML e-mails are sent as multipart. Multipart means the recipient receives e-mail in several parts, each part having a different format. Some recipients' e-mail program cannot display multipart e-mails. Such programs scan the multipart e-mail to find a format they can display. This is why it is recommended to provide your e-mail with a text version. BulkMailer can send multipart e-mails with both text and HTML.

*Suggestion: To obtain a text version of HTML e-mail, we use a hint that we find convenient. As soon as we have finished with writing the HTML e-mail, we forward it to our own e-mail address using Mozilla Thunderbird. When sending an e-mail with Thunderbird, we have to choose between three options: send in HTML only, send in plain text only, or send in both plain text and HTML. We send the e-mail in plain text only. This saves a plain-text copy of the e-mail in the Sent folder. We copy this version into the BulkMailer "Text" tab.*

Once your e-mail has been written in HTML, import the file in the "HTML" tab. BulkMailer will parse it, inline the stylesheet, and embed body background and images. Depending on the syntax of the e-mail HTML code, the embedding can fail or display unexpectedly. Indeed, supporting all forms of HTML codes that are generated by the many HTML editors that exist can be difficult. To ensure that your HTML e-mail displays correctly, enter a valid test e-mail address – most likely your own – and click "Send test e-mail". Make sure to supply text in the "Text" tab or the sending will fail.

Check your mailbox to see if the e-mail has been sent correctly. You also might want to try forwarding your e-mail with Mozilla Thunderbird, as Mozilla Thunderbird forwarding is very strict

on the HTML syntax. If the e-mail does not display properly, try to fix the HTML code. If you cannot solve the problem, please report to us. In your report, please make sure to include the HTML e-mail code, your own e-mail client, the name of your HTML editor, as well as a precise description of the problem. If your HTML e-mail is sent properly, and if forwarding preserves its aspect, you are ready to send it to your recipients. :)



*BulkMailer main panel*

To set the recipients of your e-mail campaign, click “Add”. This allows you to set the list of recipients, as well as to refine your recipients list just in time with the “Remove” button. In many cases, you might have a list of addresses that have been collected since your last e-mail campaign. In this case, you might want to merge the lists of addresses. Click “Add” again and BulkMailer takes care of the merging, removing any address duplicate. Also, the addresses in your opt-out list (i.e. the persons who have demanded not to be contacted any more) should be excluded. Click “Exclude” and BulkMailer removes your opt-out addresses. Once your address book has been enriched and filtered, you might want to save the resulting list. Click “Export” and save the file on your hard disk. You can now let BulkMailer send e-mails for you.

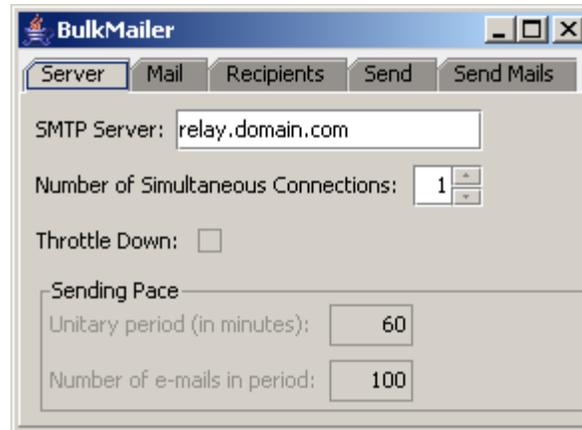
To send the e-mails, double-check your recipients and entries – and click “Send”. BulkMailer will start the sending process. Before the actual sending process is started, no confirmation will be asked to you; the e-mails start being sent. You can monitor the process in the log file that is created in the BulkMailer directory. As soon as the e-mails have been sent, the BulkMailer window and the Send button will redraw. The log file lets you count the number of e-mails that have been sent correctly or incorrectly. Note that this indication does not guarantee that a valid mailbox has received your e-mails or that a human reader will have received it.

## **Additional Support**

This user guide has been designed to let you as independent as possible in using our software. However, you might experience some trouble using BulkMailer. In this case, you might want to seek some help. The BulkMailer team has limited resource, so please contact us only if you have spent out all the other options. Exploring the options is probably your way to obtain a faster, deeper, and more long-term help than by contacting us. Also, local individuals around you are more likely to provide a personalized help. They know you and your machine better than we do. Talented computer users can be found everywhere. As a suggestion, we recommend you seeking among your neighborhood, contacts, and relatives. Ask. Ask them all. They will be pleased to help. If they have specific questions about the particularities of BulkMailer usage, you can let them contact us and we will be happy to respond. And if you feel that you are the most talented computer user in your microcosm, it is okay that you contact us. Please just try to contact us in last option. Try to figure out as many things as possible by yourself. We thank you in advance for your understanding.

## **Appendix A: How to Use the Old BulkMailer Version**

First of all, you must configure the mail server. The mail server is the machine that will relay your e-mails to your recipients' mailboxes. Your ISP should have given the address of this machine when you have signed your contract of service. Typical machine names are relay.domain.com, smtp.domain.com, or mail.domain.com. Another parameter that should be set is the number of agents that will connect the mail server simultaneously. Finally, you might want to set the sending pace. If your ISP has set a restriction on your e-mail sending pace, you might not be able to send all your e-mails at one. Checking the sending pace in BulkMailer allows all your e-mails to be relayed by your ISP mail server. Once you have set up the mail server configuration, you can start writing your e-mail.



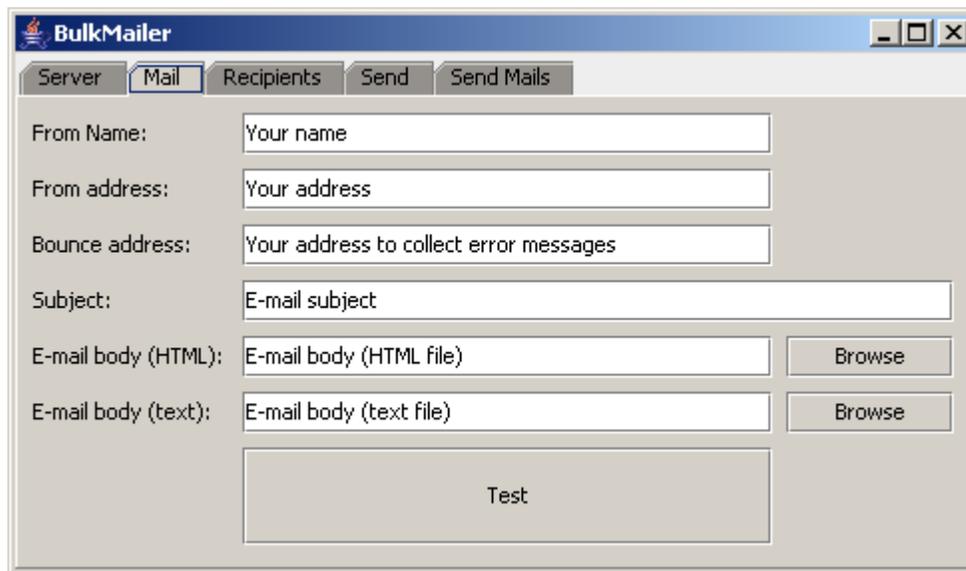
*Mail Server Configuration*

To write the e-mail that you will send to your list of recipients, you can use your favorite HTML editor. If you have no HTML editor, you can get one free from the Internet. Use your HTML editor to create your e-mail body. As soon as your e-mail has been created, save it on your hard disk. Links to background and images should be made explicit and relative to the document itself. If you do not know what this means, please consult your HTML editor documentation, or just pray that everything will work fine as is. ☺

In e-mail standards, HTML e-mails are sent as “multipart”. This means that the recipient will receive your e-mail in several formats. Some recipients' e-mail reading program cannot display HTML e-mails. In these cases, their program will scan the multipart e-mail to find an alternate format it can

display. This is why it is recommended to provide your sending with a text version of your e-mail body. BulkMailer supports multipart e-mails.

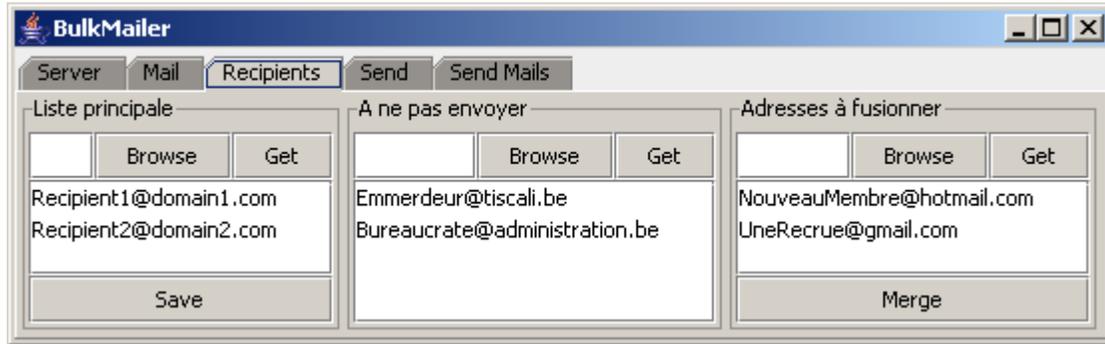
To obtain a text version of your HTML e-mail, we use a hint that we found convenient. You might want to get inspired by it to make your life easier in creating the text version. As soon as we have finished writing the HTML e-mail, we send it to our own e-mail address using Mozilla. In Mozilla, an option can be set to send e-mails in plain text. After Mozilla has sent the e-mail in plain text, it saves a copy in the Sent folder. There we go and see a text version usable as multipart. Even the HTML links are preserved, in text format. This hint is easy to setup and we found it very helpful.



*Creating e-mail and testing*

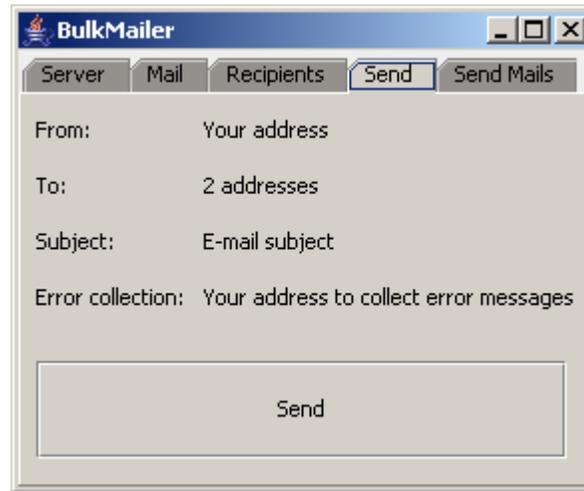
Once your e-mail has been written, BulkMailer will parse it to allow its embedding in e-mails. Depending on the syntax of the e-mail you wrote, the embedding can fail. This is likely to be due to a lack of support in BulkMailer. Indeed, it is difficult to support all the forms of HTML codes that are generated by the many HTML editors that exist. To ensure that the HTML e-mail embedding occurs fine, enter a test e-mail address – most likely your own – and click Test. Check your mailbox to see if the e-mail has been sent correctly. Also try to forward your e-mail with Mozilla, because we have found that e-mail forwarding with Mozilla is very little lax on the HTML syntax. If the e-mail has not been sent properly, try to fix the HTML code. If you cannot solve the problem, please report to us. In your report, please make sure to include the HTML e-mail code, the name of your HTML editor; as well as a precise description of the problem. If your HTML e-mail is sent properly, and if forwarding it satisfyingly preserves its aspect, you are ready to send it to your recipients.

To set the recipients of your e-mail campaign, go to the Address Book panel. This panel allows you to set the list of recipients, as well as to refine your recipients list just in time. Indeed, in many cases, you might have a list of addresses that have been collected since your last e-mail campaign. In this case, you might want to merge the lists of addresses. This merging should be made smartly. Indeed, the addresses to be merged should not duplicate existing e-mail entries in your main address book. Also, the addresses in your negated list (i.e. the persons who have demanded not to be contacted any more); should not be included either. Such smart merging can be performed using the BulkMailer Address Book panel. Once your address book has been enriched, you can let BulkMailer send the e-mails for you.



*Address book panel*

To send the e-mails, go to the Send panel. Review the list of recipients and refine it if necessary. If the list of recipients is satisfying, click Send. BulkMailer will start the sending process. Before the actual sending process is started, a confirmation will be asked to you. Then, the e-mails start being sent. You can monitor the process in the progress bar at the bottom of the panel. As soon as the e-mails have been sent, you will receive a confirmation dialog. The dialog also indicates the number of e-mails that have been sent correctly. This indication does not guarantee that a valid mailbox has received your e-mails.



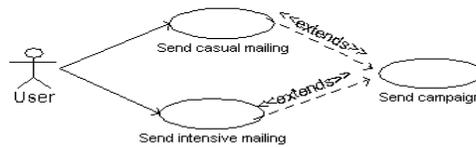
*Send your e-mails*

## **Appendix B: BulkMailer Analysis and Architecture**

This section describes the BulkMailer System product requirements. These requirements have been defined by discussing newsletter mail-sending needs of non-profit organizations. During the discussions, business cases have been identified. Use cases described in this section have been designed to integrate with non-profit organizations business cases. Other organizations with similar requirements should benefit from these use cases as well.

### **Use Cases**

This section presents the BulkMailer system use cases. Use cases are divided into primary and secondary use cases. Primary use case is sending e-mails with the BulkMailer system. Secondary use cases are address book management functionalities in two different cases. Only the main use-case scenarios are described.



*Use case diagram*

## Mail Sending Campaign

- Export main address book from Mozilla Mail to CSV file
- Prepare e-mail file in IBM HomePage Builder (see secondary use cases below)
- Start BulkMailer
- Set SMTP server
- Set sender
- Set e-mail file
- Prepare text file through Mozilla Mail plain-text sending option or similar HTML-to-text converter
- Set text file
- Test self-sending ; if e-mail not sent properly, iterate
- If e-mail sent ok, set recipient list and send to all
- Recipients reply:
  - o Remove error addresses from main address book
  - o Add opt-out replies to exclude.txt
  - o Mark opt-in addresses in main address book
  - o Decide what to do on over-quota addresses

## Prepare recipients list for wide sending

Casual mail-sending campaigns should be sent to every recipient in the main address book. Of course, duplicates and opt-out addresses must be excluded from the sending. An important recipient contribution to such sending lies in the cc addresses included in forwarded chain mails, stored in the users' e-mail program mailbox. These addresses should be automatically extracted by BulkMailer. Therefore, the main scenario for wide mail sending can be described as follows:

- Load main address book
- Extract addresses from mailbox file
- Merge extracted addresses with main address book
- Optional: merge secondary address books with main address book
- Remove duplicates (with user's assistance when needed)
- Remove opt-out addresses

## Prepare recipients list for frequent sending

Opt-in addresses are interested in frequent mailings. These addresses are cleanly marked in the main address book. The opt-in marks lie in the Organization field of the recipient info. Therefore, the main scenario for frequent mail sending can be described as follows:

- Activate opt-in filter
- Load main address book
- Remove duplicates (with user's assistance when needed)
- Optional: Remove opt-out addresses

## Program examples

In the sections above, some program names are taken for example. These programs can of course be replaced by their equivalents. Programs cited and possible equivalents are as follows:

- **IBM HomePage Builder** can be any HTML editor like Mozilla Composer, Nvu, Microsoft FrontPage, Macromedia Dreamweaver, etc.
- **Mozilla Mail** can be any mail program like Mozilla Thunderbird, Outlook Express, Outlook, Pegasus Mail, etc.

## HTML: CSS Inlining

As few e-mail programs support external stylesheets, BulkMailer copies the stylesheet inline.

Before:

---

```
<link href="../../theme/style.css" rel="stylesheet" type="text/css">
```

After:

---

```
<link href="../../theme/style.css" rel="stylesheet" type="text/css">
<style type="text/css">
body {
    color: #333;
    background-color: yellow;
}
</style>
```

## HTML: Body Background and Image Embedding

For inclusion as multipart e-mail, the HTML needs to be transformed with links to background and images redirected to “cid” embedded elements.

Supported syntax:

---

```
<body background="../../theme/bgimage.jpg">
...
    
```

BulkMailer scans the HTML code and replaces the links to files by links to cid elements:

```
<body background="cid:spoirdis">
...
    
```

The resulting e-mail contains multipart elements with the corresponding cid identifiers for the background and images.

## Development

To support the use cases described in the previous section, a number of development tasks are required. These tasks include previous BulkMailer version debugging and integration, address book panel redesign iterated with customer’s feedback, forwarded e-mail address automatic extraction, and unit-testing definition, implementation, and application. Some of these tasks are detailed below.

## E-mail Address Extraction

E-mail address extraction in forwarded chain mails is not straightforward; encoding formats depend on the mailer programs in the chain. Some mailer program formats can be unexpected. In our case, we consider extracting the display names too difficult to invest effort into extracting them. On the contrary, extracting e-mail addresses should be made easy by the following algorithm.

In our algorithm, e-mail addresses are extracted from their @ sign. The algorithm sequence is as follows:

- Spot an @ sign
- Look back through [a-z] | [A-Z] | [0-9] | [-\_.] characters
- Look ahead through [a-z] | [A-Z] | [0-9] | [-\_.] characters
- Extract address
- Iterate on next @ sign

This allows to extract e-mail addresses one by one, until the entire mailbox file has been parsed.



### *Extraction Sequence*

E-mail address format can be described by the following code sample:

#### **Code Sample – E-mail address checking algorithm**

---

```
// check for bad characters in the username
var ch;
for (i = 0; i < username.length; i++) {
  ch = (username.substring(i, i + 1)).toLowerCase();
  if (!(((ch >= "a") && (ch <= "z")) ||
        ((ch >= "0") && (ch <= "9")) ||
        (ch == "_" || ch == "-" || (ch == ".")))) {
    return false;
  }
}

// check for bad characters in the domain
for (i = 0; i < domain.length; i++) {
  ch = (domain.substring(i, i + 1)).toLowerCase();
  if (!(((ch >= "a") && (ch <= "z")) ||
        ((ch >= "0") && (ch <= "9")) ||
        || (ch == "-" || (ch == ".")))) {
    return false;
  }
}
}
```

---