



Advertising, viruses, and all kinds of junk fill up millions of mailboxes. Three small tools, Eremove, Kshowmail, and PopWash, can help you get rid of breast enlargement, Viagra, and insurance offers before this kind of junk ever reaches your disk.

The programs work like email clients, apart from the fact that they simply grab

Deleting Spam Directly from POP3 Servers

One Step Ahead

If you regularly receive unsolicited mail, you might prefer to delete it from your provider's mail server. You can even deploy filters and regular expressions to automatically combat spam flooding. **BY TIM SCHÜRMAN**

the subject line, sender, and size of the message file. This information is typically all the spam harassed user needs. Users can select unsolicited messages, and drop them into a black hole, with a single click. This prevents the discarded messages from reaching your hard disk.

Instead, users can delete messages from their mailboxes on the provider's mail server. This not only reduces traffic volumes, but protects users from viruses and keeps your mail inbox free of spam.

Before you start to set up your spam killer, make sure you have your mail

account credentials at hand. You need the either the **IP address** or **DNS name** for the **POP3 server**. You also need your account name and login password for the POP3 server. All of this information is typically provided by your Internet provider, so check for a sheet with the required details.

For the Brave: Eremove

The first spam killer candidate in this article is the Email Remover (or Eremove for short). It is based on GTK, the library on which also Gnome is based. However, it does not interface as nicely with the desktop system as KShowmail (discussed later) does with KDE.

The homepage for the tool has binary and source packages. If you opt for the former, simply download and unpack the archive, to reveal the *eremove* executable.

Eremove has fairly restricted functionality. In fact, all it can do is remove email messages from mail servers. When launched, a window



Figure 1: A fairly spartan Eremove setup window automatically appears when you launch the program.

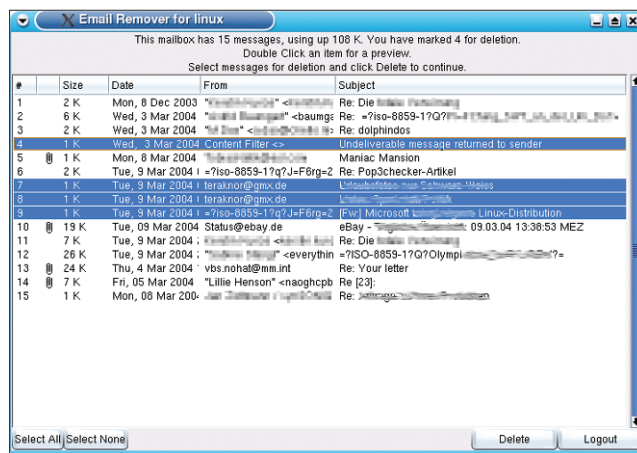


Figure 2: The main Eremove window with a list of email messages.

GLOSSARY

DNS name: The "Domain Name System" translates IP addresses into convenient host-names. For example, the IP address 62.245.157.219 resolves to the DNS name *www.linux-magazine.com*.

IP address: The house number of a computer on the Internet. It takes the form of four numbers between 0 and 255, separated by a decimal point, and is unique. Computers with

permanent Internet connections (such as mail servers, for example) need a static IP address, that is an address that will never change.

Home computers that use a modem or DSL to establish a dial up Internet connection, are typically assigned a temporary (dynamic) IP address by their provider.

POP3: The "Post Office Protocol" version 3 specifies the format and procedure for trans-

ferring messages between mail servers and clients, for example when a client downloads incoming mail.

Server: A program that runs 24x7 on a network attached computer. The server listens for requests from other programs (clients), and responds to these requests.

pops up for the *Server* name, the *Username*, that is your login name on the POP3 server, and your *Password* (see Figure 1). Keep the default setting for *Port*.

Eremove's next act is to grab a list of the messages on the server and display the list in the main window (see Figure 2). You can select the messages you want to delete in the list, and then click *Delete* to remove these messages. The *Select All* option selects the whole list. Clicking on *Logout* quits the program.

You can double click a list entry to preview the message. When we called this function on Suse Linux, Eremove crashed regularly, taking the whole X Window system down with it. It also fails to provide genuine protection for passwords, simply storing them in the clear in the `~/eremove` configuration file. This tool is not recommended.

The Number 1: KShowmail

KShowmail is the most mature program in our list of test candidates. KShowmail uses the Qt library and integrates seamlessly with the KDE desktop. If you have Suse Linux, you can install KShowmail without any pain using YaST. If your distribution does not include this program, check out the project website (see Table 1) for a download.

KShowmail is the most full featured. It not only manages multiple POP3

accounts, but can be told to update the message lists at regular intervals. This makes for an inconspicuous background tool. KShowmail can notify you when a message arrives. So you can wait until it has some work to do before opening up a session.

KShowmail has a feature for registering complaints about unsolicited messages. Just click the *SPAM* button to send the selected message to a complaints center. This can be the mail server owner, or a project to combat spam, such as www.spamabuse.org.

To tell KShowmail where to send messages you have classified as spam, you need a separate tool such as *spam.pl* from <http://spam.sourceforge.net/>. This tool will handle the transport side.

To plug *spam.pl* into KShowmail, select *Setup | User commands* and click on *Add* in the new window. Enter *complain* in the top field, and the command for the program with which you will be sending complaints in *Command*: *spam.pl* may be pre-configured, in this case the entry will read:

```
spam.pl < <body>
```

where *<body>* is a placeholder that KShowmail replaces with the email.

You can use this technique to call any external program. Instead of the *complain* string, choose an appropriate mnemonic. This tells KShowmail to create an entry in the *Actions* menu, to launch the program.

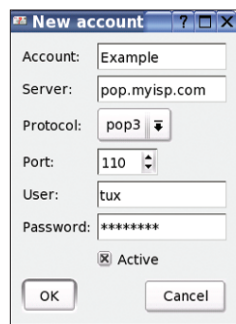


Figure 3: Use this Kshowmail dialog to enter the credentials for a new account.

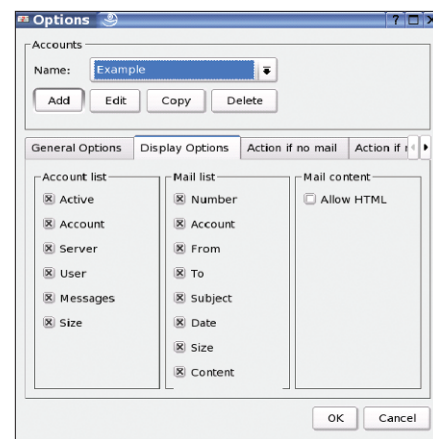


Figure 5: Use the "Display Options" to specify the information that KShowmail will display in the bottom list of the main window.

Configuring

To configure Kshowmail, select *Setup | Setup accounts*. Click on *Add*, and enter your account credentials (see Figure 3). Type an appropriate name for the mailbox in the *Account* text box. You need either the DNS name or IP address of the server in the *Server* text box. *Username* is your login name on the POP3 server. If you do not enter your password at this stage, KShowmail will prompt you for your password the first time you attempt to access your mailbox. Click on *Ok* to return to the setup dialog.

You can use the *Action if new mail* tab to select how KShowmail will alert you when a new message arrives. By default, the program is configured to pop up a window and beep.

You can specify the interval at which KShowmail will pick up mail from your mailboxes, just like for a normal mail client (see Figure 4). you can also specify the information KShowmail should display in the main window for

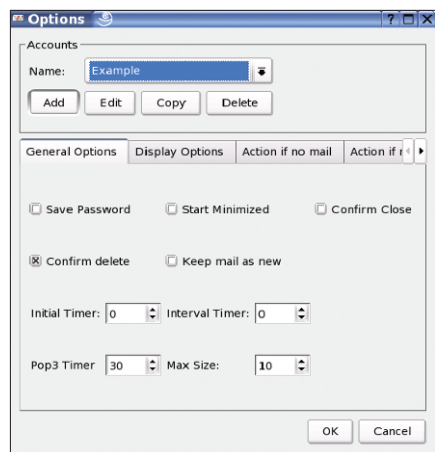


Figure 4: The "General Options" tab in the options dialog is used, among other things, to specify the interval to check for new messages.

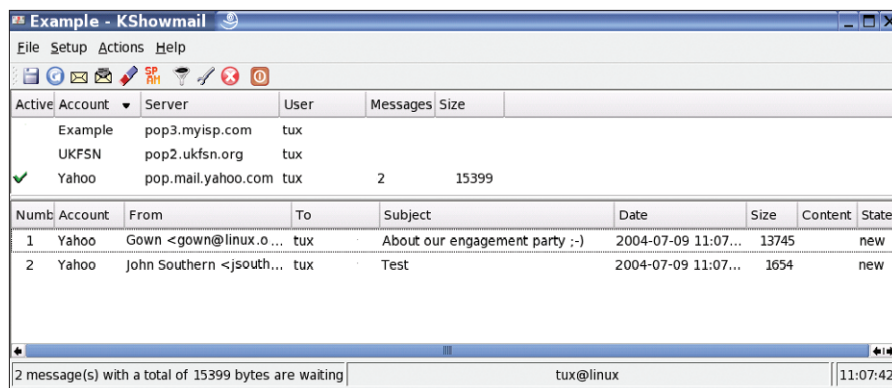


Figure 6: The KShowmail main window. In our example, we have only checked mail for the yahoo account, as you can tell by the checkmark in the "Active" column in the top list.

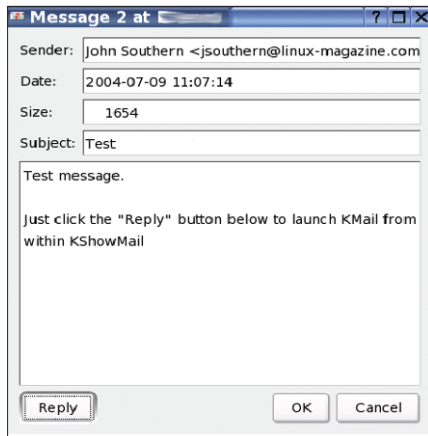


Figure 7: You can click the “Reply” button in the bottom left-hand corner to launch KMail from within KShowmail.

each message. Click on the *Display Options* tab to set these options (see Figure 5).

Click on *Ok* to return to the main window with its two panels (Figure 6). Your email accounts are now displayed in the top list. A checkmark in the *Active* column means check this account.

If you do not have time to wait until the program performs a scheduled check, select *Actions | Refresh messages* or click the arrow icon. If you did not pre-configure a password, KShowmail will prompt you to enter your password before displaying all the messages on the POP3 servers (see Figure 6).

Hold down the [Ctrl] key, and click on the messages you want to delete. Click on the eraser icon, or select *Actions | Delete highlighted messages* to remove the selected messages from the server. The *Actions | Clear list* entry clears the list; it does not remove any messages.

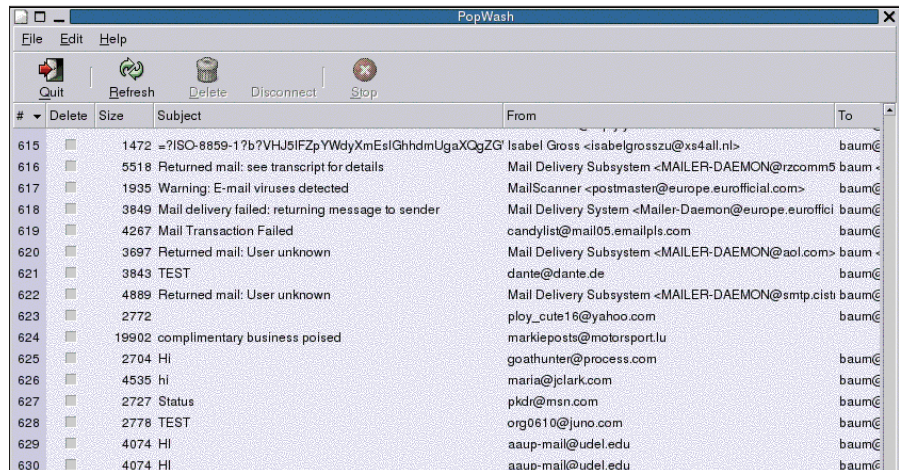


Figure 8: Get rid of unwanted messages in the PopWash main window. Click to select messages, and then select “Delete”.

More Info about Messages

It is not always easy to identify spam by just referring to the information shown in the list display. KShowmail has an answer to these tricky questions in the form of an extended view. First click to select the message that you need more information on. Then select *Actions | Show header of highlighted messages*, and KShowmail will display the header data for the message, including the sender, the date of transmission, and the mail server. If you select *Actions | Show complete highlighted messages*, KShowmail will display the content of the selected message in a small text window, but ignore any attachments, rather than executing them (see Figure 7).

The Challenger: PopWash

PopWash enters the arena as a relatively new project to challenge the more established competitors. PopWash is still in testing, as reflected by its version num-

ber 0.3. One unusual thing about the tool is that it is based on a mixture of Tcl and GTK. PopWash needs the *Gnocl* library to allow these two worlds to cooperate, and most distributions do not include it. Fortunately, you can download *Gnocl* from the PopWash website (see Table 1).

If you want to build the program yourself, you will need a more or less complete Gnome environment including the developer packages, GTK, Tcl, and the *tcllib* library. If you have all these prerequisites, simply enter *make* in the PopWash directory to compile the source code. Then *su* to *root* and enter *make install* to install the program. Having completed the install, you can use the *popwash* script to launch PopWash.

After successfully negotiating this hurdle, you will discover that PopWash has quite an impressive feature range, including convenient email filtering (see Box 1).

Box 1: Filtering

Checking each message is especially tedious in the case of email. Filters (a.k.a blacklists) can be a help. A filter is simply a list of words. The filter program checks each message for words from the list. If the filter discovers the word, “Viagra”, say in the subject line of the message, it tags the message for deleting. Both KShowmail and PopWash include blacklists.

PopWash additionally has a whitelist that does exactly the opposite. If a listed word occurs in the message, the message will not be deleted. If you put a colleague’s email address on the list, the filter program will not delete messages from this colleague, even if they contain a word from the blacklist – such

as “Viagra”.

In PopWash, you set up a filter by selecting *String Matching* in the configuration window. Select either the *White List* or *Black List* tab (see Figure 10). PopWash will compare the words in *From* with the email address of the sender, words in *Subject* with the subject line, and words in *To* with the receiving address.

To add a new word to the list, click the *Add* button next to the list you need, and enter the word. Do not worry about capitalization. Press [Enter] to complete your entry. To modify an existing entry, click to select the entry, and make the required changes.

In KShowmail, you need to select *Setup | Fil-*

ters. In the window that appears, select *Active* (see Figure 11) and then click on *Add*, to create a new list entry.

First, select the elements to search for the word below *Conditions* (see Figure 12), for example, the *Subject* line. Then type the search string for the filter program in the text box. KShowmail will ignore capitalization, unless you check the checkbox to enable case sensitive searching. Regular expressions allow for even more detailed searches (see Box 2), and can be a big help in getting rid of spam when the perpetrators use unusual spellings for keywords.

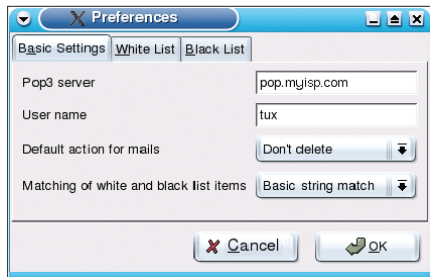


Figure 9: PopWash, configured with the credentials of the Kshowmail account shown in Figure 3.

Now select *Edit | Settings*. In the dialog box that appears, select the *Basic Settings* tab (see Figure 9) and enter the server name for *Pop3 Server* and the login name for *User name*.

You can select *Default action for mails* to specify what to do with the message list immediately after retrieving mail. If you tend to receive more spam than normal messages, your best option is *Mark for deletion*. Clicking *Ok* takes you back to the main window (see Figure 8).

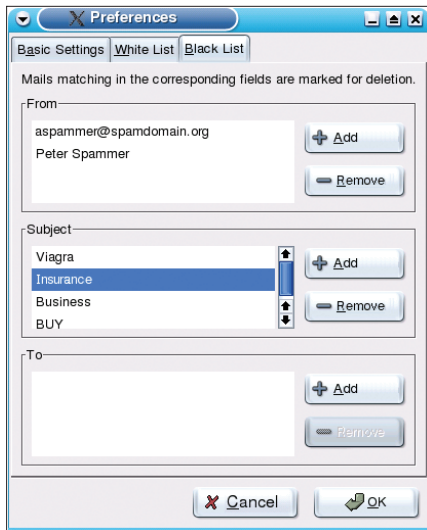


Figure 10: Example of filter entries in PopWash.

Refresh tells PopWash to retrieve your messages from the server. You can then check the *Delete* column for your spam candidates, before clicking *Delete*. The only way to stop this action is to press

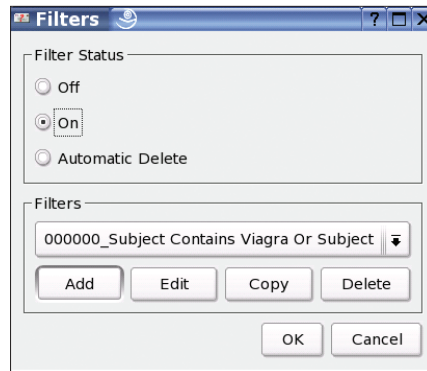


Figure 11: Use this window to add a new filter. The “Filter Status” area allows you to specify whether the list with the filters is enabled or disabled.

[Esc] as quickly as possible, but you can click on the *Stop* to undo the action.

Which Washes Cleaner?

Both PopWash and KShowmail are more than simple tools that remove spam from your mailbox. Both use advanced libraries and require an advanced environment. Eremove is more frugal. Your decision will be driven by the desktop system you use, and the degree of functionality you need. KShowmail is the most complete. The program is stable, and runs as a background job. Also, KShowmail is the only candidate that can access multiple email accounts at the same time. PopWash will have all the features it takes to play in the same league as KShowmail, when it completes testing. As it requires gnocl, PopWash is more tricky to install. In contrast to both these tools, Eremove is the domain of daring minimalists and not recommended on account of its bugs.

Table 1: POP3 Antispam Tools

Name	Eremove	KShowmail	PopWash
Libraries	GTK	Qt, KDE	Gnocl (Tcl, GTK, Gnome)
Multiple account management	no	yes	no
Automatic refresh	no	yes	no
Links to external programs	no	yes	no
View email header/body	no/no	yes/yes	no/no
Filters: Blacklist/Whitelist	no/no	yes/no	yes/yes
Filters: Regular expressions	no	yes	yes
Store passwords	yes, unencrypted	yes, encrypted no	
Project homepage	http://eremove.sourceforge.net/	http://kshowmail.sourceforge.net/	http://www.dr-baum.net/popwash/

Box 2: Using regular expressions

Spammers typically attempt to bypass filter lists. Instead of the word “Viagra”, they use a modified form, such as “VIA_gra”. To remove the need for spam victims to add every possible spelling of the keyword to the blacklist, KShowmail and PopWash both use regular expressions, (or “regexps” for short) in their filters.

Regular expressions work just like wildcards, such as * or ?, in the command line. For example, *pic*.jpg* means any files that start with *pic*, and end in *.jpg*.

A regular expression looks like this:

```
[^\b]\@spam\.org
```

This example matches any email address that ends in *@spam.org*. The expression, *[^\b]* finds a single character before *@spam.org* that matches the pattern in the square brackets. The circumflex in the brackets means: “Any characters except the following” As *\b* is not a real character, but

simply means the beginning or end of a word, the rule matches any character before the @. Thus, the filter matches any mail address at *@spam.org*.

To use a regular expression in PopWash, select *Advanced regexp* below *Basic settings*. Enter the regular expression, and the keywords as described in Box 1.

For KShowmail, check *Regular expression* in the window with the settings for your filter entry (*Setup | Filter | Add*). From this point on, KShowmail will treat the expression as a regular expression.

You may need to experiment and practice to put regular expressions to good use. Some basic knowledge of regular expressions makes it easy to get rid of a lot of spam. If you need more information on the syntax of regular expressions, check out <http://www.selflinux.org/selflinux/html/regex.html> for an introduction and examples.

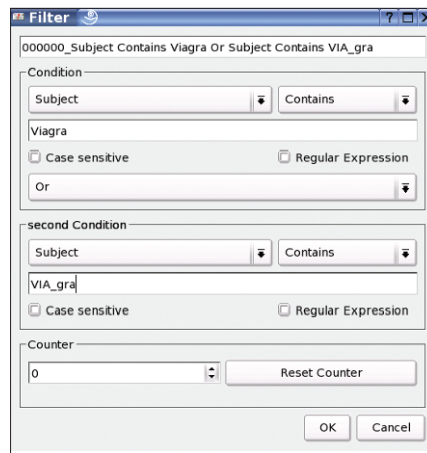


Figure 12: KShowmail allows you to associate two conditions within a single filter entry by using simple boolean logic instructions.