

Filter

Matthew Hunter

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| COLLABORATORS |
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| | <i>TITLE :</i> Filter | | |
| <i>ACTION</i> | <i>NAME</i> | <i>DATE</i> | <i>SIGNATURE</i> |
| WRITTEN BY | Matthew Hunter | August 24, 2024 | |

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| REVISION HISTORY |
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Contents

| | | |
|----------|-------------------------------|----------|
| 1 | Filter | 1 |
| 1.1 | Filter | 1 |
| 1.2 | Filter/Introduction | 1 |
| 1.3 | Filter/Requirements | 2 |
| 1.4 | Filter/Installation | 2 |
| 1.5 | Filter/Config | 3 |
| 1.6 | Filter/Usage | 5 |
| 1.7 | Filter/Limitations | 5 |
| 1.8 | Filter/Author Info | 5 |
| 1.9 | Filter/History | 6 |

Chapter 1

Filter

1.1 Filter

Filter v1.3

[Introduction](#)

[Requirements](#)

[Installation](#)

[Usage](#)

[Config](#)

[Limitations](#)

[Author Info](#)

[History](#)

1.2 Filter/Introduction

Filter arose out of the desire to take a very large amount of email, generated mostly by mailing lists, and get it out of the way so I could read important email first, without worrying about the list email until I had some free time. Somewhere along the way I realized that, properly configured, the same tool could do more complex sorting if I permitted it to, and so I did.

In its current incarnation, filter will place a notify on the incoming mailbox of the current user, and whenever that file is changed, scan through it and either copy the email to the default destination, copy the email to a specified destination if it matches the information in the configuration file, or delete the email entirely. Once all the email in the incoming mailbox has been processed, the incoming mailbox will be cleared.

It is worth noting here that I only included the delete function

because it was very easy to code; it has not been extensively tested, and I don't really see too much reason to automatically delete email. Filter is not really useful as a spam-guard, unless you like modifying configuration files all the time.

Filter operates on mailboxes of the type generated by AmiPOP, smtpd and smtpdpost, which is the same type read by pine and elm. It will be easiest to use it with those tools, but it can be adapted to work with others; at least one person is using it with UUCP. My own system uses AmiPOP and elm mostly.

MailWatch is an especially useful tool when combined with filter. You can use MW to watch each of the possible categories defined in filter, displaying an icon with status information, and configure it to start a mailreader with that category when double-clicked.

1.3 Filter/Requirements

- 1) Filter requires AmigaDOS 2.04 at least. It has only been tested with 3.1 so far, but there is no reason it should complain about anything else.
- 2) Filter requires a filesystem that supports AmigaDOS filechange notification. To my knowledge, that should only be a problem with networked filesystems, and I believe the latest version of Envoy supports it.
- 3) Filter requires enough RAM to run. If you have 30k free you probably don't need to worry about it. If you don't have 30k free you have bigger problems than filtering your email.

1.4 Filter/Installation

Installation is easy. Use the supplied Installer script to install Filter to its own directory, then copy the binary elsewhere if you want (I suggest WBStartup or AmiTCP:bin, depending on cli or WB startup). Then make a configuration file. If you already have AmiTCP and/or an email system installed, that's pretty much all you need to do.

Filter makes several assumptions about the location of the files it needs. These have changed since prior versions.

Filter will find your configuration file automatically if it is in the current directory and named ".filterrc". Otherwise, you need to use the CONFIG=<filename> parameter to tell it where to look. The

FilterPrefs utility will look in "HOME:.filterrc", but can find any specified file with a file requestor.

3) Your incoming mailbox (ie, the file AmiPOP/smtpd use to deliver mail to you) is, by default:

a) located in uumail:

b) given the same name as the environment variable "USER".

AmiTCP will set this variable automatically.

This can be specified with INBOX=<filename>.

4) The default destination file (if a specified destination is not found) is, by default, "HOME:mail/USER" with USER again being the value of that environment variable. If you don't like this, specify DEFAULT=<filename> on the commandline or as a tooltype.

5) Unless you specify the full path in the configuration entry, filter will assume all destination files are to be placed in (by default) "HOME:mail/filename", with filename as what you specified in the configuration file. If you give it a full path it will use that instead. You can change the default directory with DEFAULTDIR=<filename>.

All of this has been made more configurable. ;) The installer script will set tooltypes for you; the listings above are still the defaults if not specified, however.

1.5 Filter/Config

The configuration file will be looked for in the current directory, in HOME:, or in uulib:. It should optimally be named ".filterrc", but you can call it anything you want and put it anywhere you want now, so long as you tell filter where to look. It will still look in the other places if you don't tell it specifically.

The format of the file is a list of pattern/destination pairs. The "pattern" is an AmigaDOS pattern-matching string which the program will compare against the From, To, Subject, and Sender headers within the email. The matching is not case sensitive and allows the full range of logical operators supported by AmigaDOS.

Although all the examples do specify the exact header to check, that is not required. The program will check your pattern against all available headers regardless.

In version 1.3, the capability to specify the exact type of action to take has been added. This is done by preceding the desired

destination with the type of action, such as:

FORWARD:myfriend@aol.com

The available types are FORWARD:, COMMAND:, DELETE, and the original default. Length, case, and colons -do- matter, in order to preserve the maximum capability for those of you with wierd taste in naming your hard drives.

FORWARD: will deliver the message to the specified destination using smtp post (not included; look on Aminet); you -must- have the environment variables configured properly. Filter provides it's own To: and Subject: headers in the email, and the body of the message consists of the forwarded message surrounded by "This is a forwarded message" banners, with preceding quote marks. You can specify multiple recipients with commas.

Do not use your own inbox as a place to forward mail. It -will- endless-loop.

Support for other ways of sending mail is coming. If you can't wait, look at COMMAND: and try writing some scripts.

DELETE does the obvious. It deletes the current message without doing anything to it.

It is worth noting that the other commands all do this as well, after doing whatever they do; if you FORWARD: everything to your friend at aol, they will not be anywhere on your system. There are better ways of handling this, but they are beyond the scope of the work I am willing to do with this program.

COMMAND: is also simple. The command you list gets run by a call to system() with the message file added to the end of it. There aren't very many uses for this, since it also deletes the message, so make sure your command does everything you need it to.

An example follows:

Sender: *Bill Gates*

DELETE

Sender: *Microsoft*

COMMAND:Mailbomb FROM=

From: Aminet mailing list maintainer <aminetd@wuarchive.wustl.edu>

Other-Lists,New-files

Ideas for new things to do with the email are welcome.

Note that multiselection is possible using commas as separators, so (for example) Filter can be used to archive incoming email as well as place it in a separate mailbox.

1.6 Filter/Usage

Filter can be started from the CLI or the workbench.

Template: ONCE/S,DELAY/N,DEFAULT/K,INBOX/K,DEFAULTDIR/K,CONFIG/K

Options can be specified as tooltypes or CLI arguments.

ONCE

Process INBOX immediately, then exit.

DELAY=n

Specify the time to wait after noticing a change in INBOX, in seconds. If the file is not available for exclusive access (ie, your incoming mail-program hasn't finished) after the delay runs out, Filter will spend the next 5 minutes trying to open the file at 3-second intervals. If after 5 minutes it still hasn't succeeded, it will return to waiting for another change.

DEFAULT=<filename>

Where to put email that doesn't match anything.

INBOX=<filename>

Where your email arrives to be filtered.

DEFAULTDIR=<directory name>

The default directory to use, if not specified in the config file entry, for the output file.

CONFIG=<filename>

Where to look for the config file.

Note that Filter should run just fine if you don't give it any options at all... assuming you put your files where I put mine ;).

1.7 Filter/Limitations

Total length of all filenames and header fields is limited to 255 characters.

Your configuration file must fit into RAM while filter is actively processing your mail (the RAM is not consumed while waiting).

Only tests for matches with a subset of headers.

1.8 Filter/Author Info

Filter was written by Matthew Hunter. I retain the copyright to this program, but I am releasing it for redistribution in the public domain, with the following limitations:

1) You are not allowed to modify this program.

2) You are not allowed to charge money, aside from a nominal copying fee, for the distribution of this program. Releasing Filter as part of a PD or shareware CD is permissible.

3) You are not allowed to include this program in any product distribution without my express permission. If you want to, contact me and we'll work something out; I'll probably be flattered enough to make it just a matter of asking. This applies doubly to commercial products.

If you use this program, it would be nice to get email from you saying so. Information, help, and the latest version will usually be available from <http://shadow.res.cmu.edu/mhunter/Projects/index.html>, or <http://www.contrib.andrew.cmu.edu/~mhunter/Projects/index.html> over the summer. I can also be reached at: mhunter@andrew.cmu.edu.

1.9 Filter/History

Filter v1.0: First public release.

v1.0a: Fixed a bug in the .guide file

v1.1: Added a quick and dirty DELAY option. Not released.

v1.2: Not released.

v1.3: Public release:

- * Improved speed significantly
- * Added delete, forward, command capability
- * Added proper command-line options, including DELAY
- * Added Workbench startup code (inc. tooltype options)
- * Increased code size slightly ;)
- * Added installer script

v1.4: Public Release (primarily bugfixes)

- * Fixed enforcer hit
- * Now it -really- searches on the Subject: header
- * GUI config editor, courtesy of "TTT"

v1.5: Incremental Release (collected bugfixes, minor features)

- * Fixed several possible enforcer hits
 - * Searches Newsgroups: header (by request)
 - * Increased mailbox parsing intelligence slightly
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