

E-mail privacy with Mutt and PGP

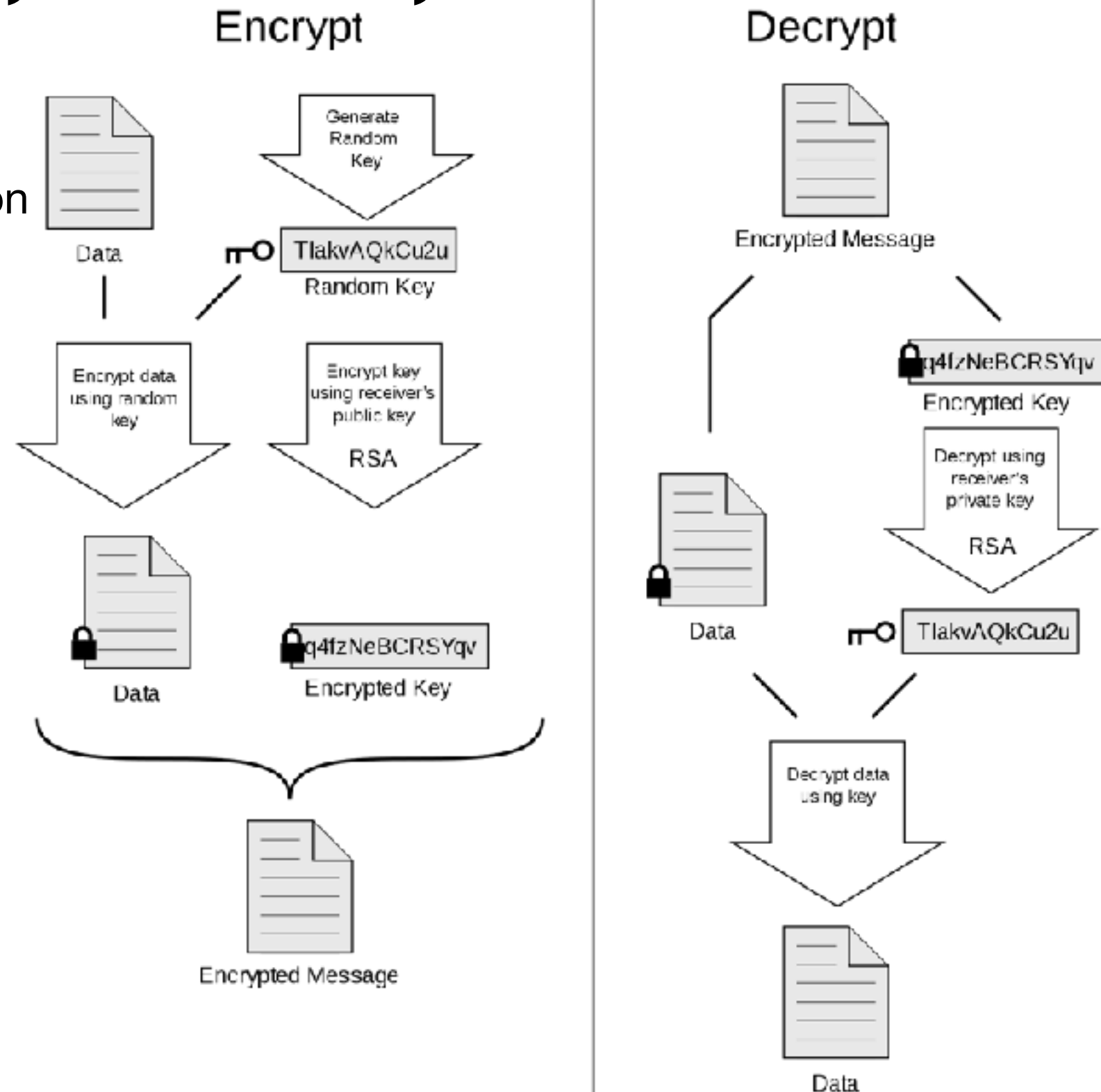
MUTT

- CLI e-mail client with:
 - **color** support
 - message threading
 - POP3/IMAP support
 - **highly** customizable, including keybindings and macros
 - change configuration automatically based on recipients, current folder, etc.
 - **postpone** message composition indefinitely for later recall
 - easily include **attachments** when composing

PGP, GPG, ...

- **PGP**: data encryption/decryption and authentication defined by RFC4480 (OpenPGP)
- “Web of trust”
- **GnuPG**: implementation of OpenPGP
- **GPGTools**: macOS version with GUI and CLI programs

*picture from wikipedia



Requirements

- Homebrew or equivalent:
 - brew cask install gpgtools-beta
(or download from gpgtools.org)
 - brew install mutt w3m
 - brew install tmux #(optional)
 - brew install vim #(mandatory!!! ;))

Create your key-pair

GPB Keychain

New Import Export Lookup Key

Details Search Filter

Type	Name
pub	
pub	
pub	
pub	
pub	
pub	
pub	
pub	
pub	
sec/pub	
pub	
pub	
sec/pub	
pub	

Generate a new key pair.

Full name:

Email address:

☐ Upload public key

► Advanced options

Passphrase:

Confirm:

Cancel Generate key

8	6118	B5B9	8066	AA3D	5264	3BC
1	7B85	FADB	25A5	83A3	EF8C	346
4	0EA5	49CA	BAF9	FBC0	7D6A	970
A	6978	FFC3	B092	50A2	3814	D8E
A	5F1B	4C29	E142	73DD	F502	BF9
B	44C1	EC9F	B07B	76D7	8F05	00D
D	624C	7165	BFBA	A369	4660	5CE
9	594A	4423	A3DC	58A2	7B4A	0F4
E	5393	B6EE	E583	972A	D856	BE2
5	173E	E927	7358	FB02	5F08	B5E
2	54B9	2E03	A1A7	C6D9	5D6B	4A5
F	DFFA	C064	0ABA	45CC	2214	F63
F	6934	A034	93D4	5A15	59E1	7E8
30.09.15	258A	9349	D9F8	A1EA	0AC7	05EE 6746 8401 CE3
30.08.12	E0C7	A26E	87AD	5EF9	992E	6B29 7043 A389 4C8

15 of 15 keys listed

Show secret keys only ☐

Mutt config: basics (gmail)

- Create a `.mutt/` folder
- Create an application password on google
- Save your password to `.mutt/password`:

```
set smtp_pass = "mypassword"  
set imap_pass = "mypassword"
```
- Encrypt with gpg (change the **key-id** to your own):

```
gpg -r CE341D36 -e .mutt/password
```

(you should have a `.mutt/password.gpg`)

```
rm ~/.mutt/password
```

Mutt config: basic gmail ~/.muttrc

```

1 #encrypted password file
2 source "gpg -d ~/.mutt/passwords.gpg |" YOUR ENCRYPTED PASSWORD
3
4 # Google remote folders
5 set imap_user = [redacted]@gmail.com
6 set spoolfile = "imaps://imap.gmail.com:993/INBOX"
7 set folder = "imaps://imap.gmail.com:993"
8 set trash = "[Gmail]/Trash"
9 set postponed = "[Gmail]/Drafts"
10 set header_cache = "~/.mutt/cache/headers"
11 set message_cachedir = "~/.mutt/cache/bodies"
12 set certificate_file = "~/.mutt/certificates"
13
14 set from = [redacted]@gmail.com
15 set realname = "Paulo Coelho"
16 set smtp_url = "smtps://[redacted]@smtp.gmail.com"
17 set record = ""
18 set smtp_authenticators = 'gssapi:login'
19 set copy = no
20 mailboxes = 'INBOX' = '[Gmail]/All Mail' = '[Gmail]/Drafts' = '[Gmail]/Sent Mail' = '[Gmail]/Spam' = '[Gmail]/Trash'
21
22 # Gmail macros
23 macro index, pager P <purge-message> "Purge message"
24 macro index, pager U <set-flag>0 "Mark as read"
25 macro index, pager I <clear-flag>0 "Mark as unread"
26 macro index, pager ga "<change-folder>=[Gmail]/All Mail<enter>" "Go to all mail"
27 macro index, pager gs "<change-folder>=[Gmail]/Starred<enter>" "Go to 'Starred'"
28 macro index, pager gd "<change-folder>=[Gmail]/Drafts<enter>" "Go to 'Drafts'"
29 macro index, pager gl "<change-folder>=?> > > > "Go to 'Label'"
30 macro index, pager gi "<change-folder>=INBOX<enter>" "Go to inbox"
31 macro index, pager gt "<change-folder>=[Gmail]/Sent Mail<enter>" "Go to 'Sent Mail'"
32 macro index, pager + <save-message>=[Gmail]/Important<enter> "Mark as important"
33 macro index, pager ! <save-message>=[Gmail]/Spam<enter> "Report spam"
34 macro index, pager e "<save-message>=[Gmail]/All Mail<enter>" "Archive conversation"
35
36 set sig_on_top = enable
37 set signature = ~/.mutt/signature #put your e-mail signature here

```

BASIC GMAIL CONFIG

USERNAME AND FOLDERS ON SIDEBAR

GMAIL SHORTCUTS

Mutt config: sorting/grouping messages, editor

```
1 set imap_keepalive = 10 # idle time before scanning
2 set imap_idle = yes # minimum time between scans
3 set timeout = 10 # idle time before scanning
4 set mail_check = 10 # minimum time between scans
5 spoolfile = "imap://imap.gmail.com:993/INBOX"
6 set sort = threads # use vim as the default editor
7 set sort_aux = date
8 set editor = "vim" # use vim as the default editor
9 header_cache = "~/.mutt/headers"
10 set quit_cachedir = "~/.mutt/headers" # confirm before quitting
11 set wait_key_file = "~/.mutt/headers" # Don't ask me to press a key to continue after I did a shell escape and c
12 # set mbox_type = Maildir # mailbox type
13 set delete_undo.coelho@gmail.com" # don't ask, just do
14 unset confirmappend.coelho" # When saving a message, append the message to an existing mailbox without
15 # unset mark_old # read/new is good enough for me
16 set beep_newicators = 'gssapi:login' # bell on new mails
17 set pipe_decode = no # strip headers and eval mimes when piping
18 set thorough_searchmail]/All Mail' = '[Gmail]/Drafts' = '[Gmail]/Sent Mail' # strip headers and eval mimes before searching
19
20 ignore *as # ignore all headers
21 unignore from: to: cc: date: subject: # show only these
22 unhdr_order * U <set-flag>0> "Mark as read" # some distros order things by default
23 hdr_order from: to: cc: date: subject: "Mark as unread" # and in this order
24 ro_index, pager ga <change-folder>=[Gmail]/All Mail<enter>" "Go to all mail"
25 set date_format <change= "%d.%m.%y-%H:%M" "Go to 'Starred' # a simple date format
26 set index_format <change= "[%Z] >%D %s" "Go to 'Drafts' # format of the index view, show all flags, date, the sender and finally t
27 set sort pager gl <change= threads> "Go to 'Label' # like gmail
28 set sort_aux pager gl <change= reverse-last-date-received> "Go to inb # like gmail
29 set uncollapse_jump <change-folder>=[Gmail]/Sent Mail<enter>" "Go to 'Sent' # don't collapse on an unread message
30 set sort_reorder <save-message>=[Gmail]/Important<enter> "Mark as impo # thread based
31 set reply_regexp <save= "<^(( [Rr][Ee]?(\[ [0-9]+\ )? : *)?(\[ [^]]+\ )?)*" # do not ask to, subject, etc when replying
32 set fast_reply <save-message>=[Gmail]/All Mail<enter>" "Archive con # always include message when replying
33 set include # when forwarding email, simply add a Fwd to the subject
34 set forward_format = "Fwd: %s" # dont wrap mid word
35 set smart_wrap # autoview html
36
37 auto_view text/html # savehtml for lasto
38 alternative_order text/plain text/enriched text/html
39
40 set status_chars = " *%A"
41 set status_format = "—[ Folder: %f ]—[%r%m messages%?n? (%n new)%?d? (%d to delete)%?t? (%t tagged)? ]—%>-%?p? ( %p postponed )?—"
```

MAIL CHECK INTERVAL AND EDITOR

SORTING

Mutt config: shortcuts and alias

```
51 # Custom keybindings
52 bind index,pager ! noop ho@gmail.com" # unbind report-spam
53 bind index,pager \# noop p.gmail.com:993/INBOX" # unbind delete-thread
54 bind index,pager % noop gmail.com:993" # unbind toggle-write
55 bind index,pager & noop # unbind link-threads
56 postponed = =[Gmail]/Drafts
57 bind index,pager b noop /cache/headers" # Unbind bounce
58 bind index,pager A create-alias he/bodies" # bind alias-creation
59 bind pager <up> previous-line certificates" # scroll inside the message rather than the index
60 bind pager <down> next-line # scroll inside the message rather than the index
61 bind index G imap-fetch-mail om" # Fetch mail shortcut
62 realname = "Paulo Coelho"
63 smtp_url = "smtp://paulo.coelho@smtp.gmail.com"
64 # Gmail-style keybindings
65 bind _editor <space> noop sapi:login'
66 bind index,pager c mail # d# compose sent messages
67 bind generic('x' tag-entry>>'=' [Gmail]/Drafts' =' [Gmail]/Sent Mail' # Select Conversation [Gmail]/Trash'
68 bind index x tag-thread>> # Select Conversation
69 bind pager x tag-message> # Select Conversation
70 bind index,pager <su flag-message> "Purge message" # Star a message
71 bind index,pager U <set-flag>0 "Mark as read"
72 bind index,pager a group-reply> "Mark as unread" # Reply all
73 #bind index,pager \# delete-thread>Gmail]/All Mail<enter>" "Go to all # Delete
74 bind index,pager <lh copy-message>[Gmail]/Starred<enter>" "Go to 'Sta # Label
75 bind index,pager m save-message>[Gmail]/Drafts<enter>" "Go to 'Dra # Move to
76 bind index,pager gl <change-folder>?> "Go to 'Label'"
77 bind index,pager gi <change-folder>=INBOX<enter>" "Go to inbox"
78 bind index,pager gt 'Lch noop folder>=[Gmail]/Sent Mail<enter>" "Go to 'Sent Mail'"
79 bind index,pager + <ltv limit>age>=[Gmail]/Important<enter> "Mark as important"
80 macro index er l <Ln v<limit>~N<enter>)/S "Limit display to new mail"
81 macro index er e 'Lu a<limit>~U<enter>)/ "Limit display to unread mail" conversation"
82 macro index Ld <limit>~D<enter> "Limit display to deleted mail"
83 macro index Lp <limit>~D<enter> "Limit display to personal mail"
84 macro index Ls = <limit>~F<enter> e "Limit display to starred/flagged mail"
85 macro index LL <limit>all<enter> "Reset displ limit to all mail"
86 macro index LL <limit>all<enter> "Reset displ limit to all mail"
87
88 macro index,pager \cb ": set pipe_decode\n|w3m\n: unset pipe_decode\n" "call w3m to extract URLs out of a message"
89 macro attach,pager \cu <pipe-entry>'cat > /tmp/mutt_mail.html; open /tmp/mutt_mail.html'<enter> 'open email in safari'
90
91 # Contact aliases, could also use 'goobook'.
92 set alias_file> = ~/.mutt/aliases
93 set sort_alias> = alias
```



ADDRESS BOOK



FILTERS

Mutt config: colors (from GitHub)

- add line:
`source ~/.mutt/.colors`
to your `.muttrc`
- from <https://github.com/victorparmar/vic-config>

Mutt config: pane

```
1 set sidebar_visible
2 #set sidebar_format = "%B%?F? [%F]?%* %?N?%?%S"
3 set sidebar_format = "%B %?N?(%N)?%* %S"
4 set sidebar_short_pathmap.gmail.com:993 #15. Set mailbox names
5 set sidebar_delim_chars="/" #16. Delete everything up to the last / character
6 set mail_check_stats_sh
7 postponed = [Gmail]/Drafts
8 bind index,pager \CP sidebar-previous
9 # Ctrl-Shift-P - Previous Mailbox/bodies
10 bind index,pager \CN sidebar-next
11 # Ctrl-Shift-N - Next Mailbox
12 bind index,pager \CV sidebar-open
13 # Ctrl-Shift-V - Open Highlighted Mailbox
14 smtp_url = "smtps://paulo.coelho@smtp.gmail.com"
15 bind index,pager B sidebar-toggle-visible
16 # Use 'B' to switch the Sidebar on and off
17 copy = no # dont store sent mess
18 boxes = 'INBOX' = '[Gmail]/All Mail' = '[Gmail]/Drafts' = '[Gmail]/Sent Mail' = '[Gmail]/Spam'
19 set sidebar_width = 20
20 # Plenty of space
21 set sidebar_divider_char = ' '
22 # Pretty line-drawing character
23 ro index,pager I <clear-flag>0 <clear-flag>1 "Mark as unread"
24 color sidebar_indicator default color17 [Gmail]/All Mail # Dark blue background for mail
25 color sidebar_highlight white color238 [Gmail]/Starred # Grey background for starred
26 color sidebar_spoolfile yellow default [Gmail]/Drafts # Yellow "Go to drafts"
27 color sidebar_new <change>green default # Green "Go to new"
28 #color sidebar_ordinary default default # Default colors for ordinary mail
29 color sidebar_flagged <change>red default [Gmail]/Sent Mail # Red "Go to sent mail"
30 color sidebar_divider <change>darkgrey default [Gmail]/Important # Dark grey "Go to important"
31 ~macro index,pager I <save-message>[Gmail]/Spam <enter> "Report spam"
```

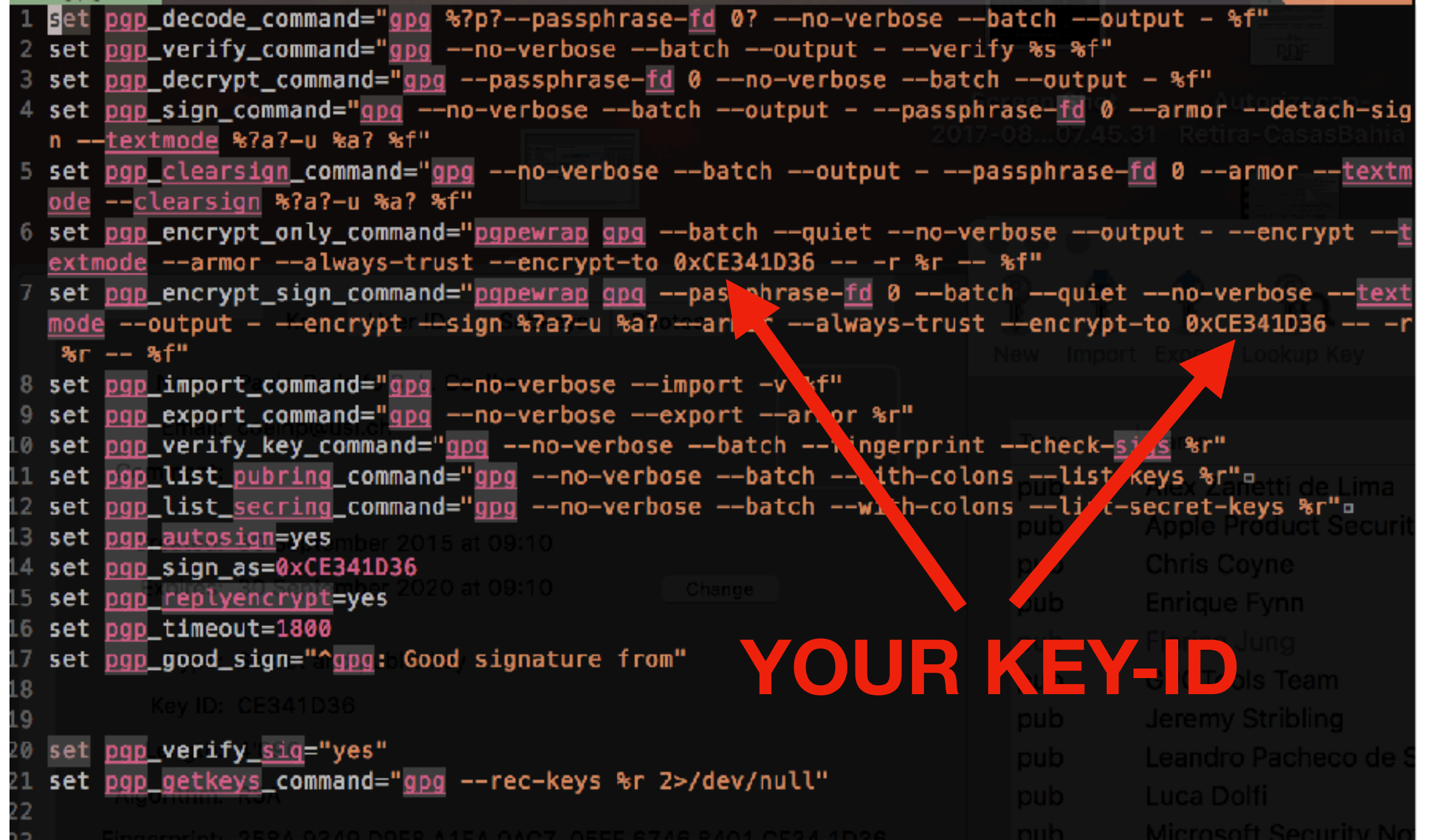
ENABLE AND CONFIGURE

SHORTCUTS

COLORS

Mutt config: gpg

```
1 set pgp_decode_command="gpg %?p?--passphrase-fd 0? --no-verbose --batch --output - %f"
2 set pgp_verify_command="gpg --no-verbose --batch --output - --verify %s %f"
3 set pgp_decrypt_command="gpg --passphrase-fd 0 --no-verbose --batch --output - %f"
4 set pgp_sign_command="gpg --no-verbose --batch --output - --passphrase-fd 0 --armor --detach-sign
n --textmode %?a?-u %a? %f"
5 set pgp_clearsign_command="gpg --no-verbose --batch --output - --passphrase-fd 0 --armor --textm
ode --clearsign %?a?-u %a? %f"
6 set pgp_encrypt_only_command="pgpwrap gpg --batch --quiet --no-verbose --output - --encrypt --t
extmode --armor --always-trust --encrypt-to 0xCE341D36 -- -r %r -- %f"
7 set pgp_encrypt_sign_command="pgpwrap gpg --passphrase-fd 0 --batch --quiet --no-verbose --text
mode --output - --encrypt --sign %?a?-u %a? --armor --always-trust --encrypt-to 0xCE341D36 -- -r
%r -- %f"
8 set pgp_import_command="gpg --no-verbose --import -v %f"
9 set pgp_export_command="gpg --no-verbose --export --armor %r"
10 set pgp_verify_key_command="gpg --no-verbose --batch --fingerprint --check-sigs %r"
11 set pgp_list_pubring_command="gpg --no-verbose --batch --with-colons --list-keys %r"
12 set pgp_list_secring_command="gpg --no-verbose --batch --with-colons --list-secret-keys %r"
13 set pgp_autosign=yes
14 set pgp_sign_as=0xCE341D36
15 set pgp_replyencrypt=yes
16 set pgp_timeout=1800
17 set pgp_good_sign="^gpg: Good signature from"
18
19 Key ID: CE341D36
20 set pgp_verify_sig="yes"
21 set pgp_getkeys_command="gpg --rec-keys %r 2>/dev/null"
22
23 Fingerprint: 259A 0340 D95B A15A 0407 0555 6746 8401 0534 1D36
```



YOUR KEY-ID

Opening attachments

- **~/.mailcap**: mime-type to application mapping
- **~/.mutt/view_attachment.sh**: mime-type from file extension
- **contacts** (<https://github.com/tgray/contacts>): convert your contacts from Contacts.app to **~/.mutt/aliases** format

You can use also save from the messages with 'A'

Mutt: let's use it

- Basic shortcuts
- Use '?' when you forget
- Give a week to memorize them before you just give up!
- Instructions and config files for gmail and USI-mail at:
https://github.com/paulo-coelho/my_mutt.git