

LINUX VOICE

TUTORIAL

GRAHAM MORRISON

MASTER YOUR EMAIL WITH KMAIL

Graham Morrison tames possibly the most powerful email client in the world and yet still doesn't reply to all his email.

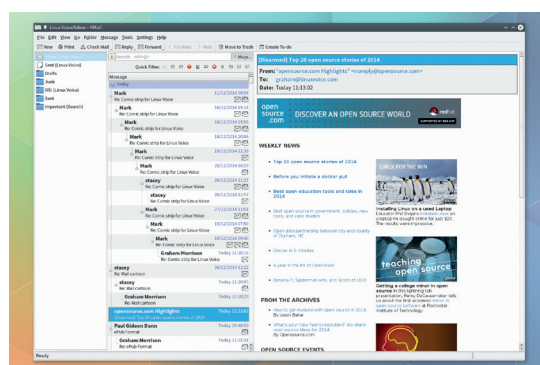
WHY DO THIS?

- Learn some of the most powerful sorting and aggregation functions of any email client that can help free your time.
- Impress your friends.

Not so long ago, it seemed the web browser had replaced our email clients. Services such as Google's Gmail became so convenient, powerful and easy to use, not to mention ubiquitously access from our phones, laptops and desktops, that running a standalone application seemed disconnected and old fashioned. But attitudes towards email have been changing, especially since Edward Snowden revealed that many online mail services did little to protect our privacy.

This has given fully-fledged desktop applications a boost as we mix our accounts and services, or start to use encryption. And there's a great selection of email clients for Linux. We love Gnome's *Geary*, for example, and it's done a wonderful job at re-inventing the simple and clean user interface for the web service generation. And Mozilla's *Thunderbird* is still the go-to application for many, thanks to its rock-solid development, the sympathetic aims of the Mozilla Foundation and configurability.

But there's another option that we don't think is often considered, and that's KDE's *KMail*. *KMail* is a great choice because it can be made to look fantastic, it's well integrated with any Linux desktop and utterly configurable. *GnuPG* encryption is almost transparent and there are powerful filters, anti-spamming and ad-blocking mechanisms. Its problem is that none of this is apparent when you first install and launch the application. *KMail* can look old-fashioned and difficult to tame, and features such as custom tagging and virtual folders are barely documented. These are some of the problems we're going to tackle over the next four pages, turning *KMail* into what we think is a contender for the best email client on Linux, and a



KMail is often overlooked because its default appearance filtering options don't give the best first impression.

great migration alternative to proprietary applications like OS X's *Mail* or whatever Microsoft's equivalent is these days.

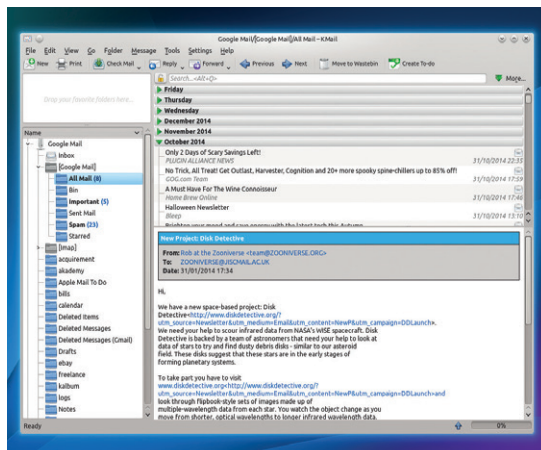
Getting email

We've installed the latest version of *KMail* (version 4.14) into a KDE environment on both Arch and Kubuntu 14.10 for testing. In the years since its migration to the *Kontact* 'PIM' suite, the development pace has been slow and steady, which means there are still updates, but any version from the last year is basically functionally identical. We're not huge fans of the 'PIM' suite concept, where email is integrated with contacts, notes, a journal and todo lists (we think PIM stands for Personal Information Management, was popular when email clients wanted to look like Microsoft's *Outlook*).

For that reason, we run *KMail* independently of the *Kontact* suite, despite *Kontact* being its default incarnation. In Kubuntu, for example, *Kontact* is launched from the Favourites list, whereas *KMail* can be found under the Internet category. Whichever you choose, the *KMail* component behaves identically.

When *KMail* is launched for the first time, you need to navigate past both the Tip of the Day, which can be bypassed, and the Account Assistant. This assistant is the best way of configuring *KMail* for your specific email account, and it will first attempt to guess settings the correct parameters using Mozilla's connections database. If you're using Gmail, for example, Mozilla's database will provide the correct incoming and outgoing server details, and you'll be able to choose between IMAP or POP3. If you've not configured email manually before, IMAP and POP3

Without changing anything, *KMail* splits the main window into three – one panel for your folders, one for the message list and one that previews the email itself.



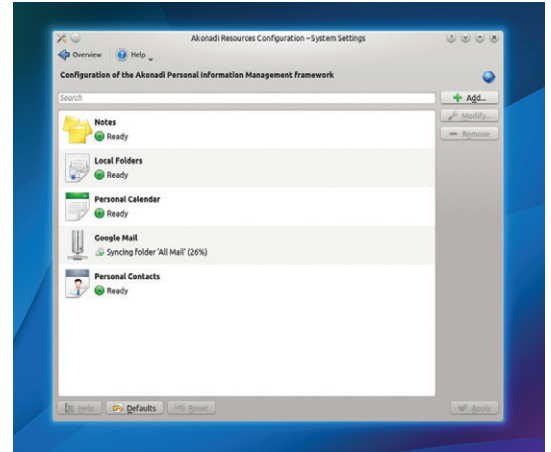
What is Akonadi

It may have a silly name, but *Akonadi* is an essential part of how KDE applications work. As with lots of other parts of KDE, the motivation behind *Akonadi* is to avoid duplication and re-invention, and it deals specifically with the way your personal information is stored and accessed by other applications. It's the framework that currently handles email, addresses, events, journals, calendars, notes and alarm settings. *KMail* uses *Akonadi* to manage your email while at the same time making it available to those applications and processes that you permit with their support for *Akonadi*.

This could mean allowing the desktop to search and index your email, for instance, so that results are delivered from a global search prompt, but it could equally be about having a single contacts list of names and addresses, and sharing access to that list

with all the applications that request it. This is how the same contact addresses work with both instant messaging and email, or how the content of your emails are delivered as search results through *KRunner*.

The most important thing to know about *Akonadi* is that while it is a database, it doesn't actually store your email and you don't have worry about adding anything too specific to your backup routine. If your emails are stored on an IMAP email server, they'll still be stored there. If you're using POP3, your emails will still be downloaded to your local **maildir** folder, just as they would with any other email application. *Akonadi* is an interface to these repositories and only stores metadata relating to those sources, not the actual data itself. It's like Google for your personal information, with applications accessing this information through calls to the framework.



In KDE 4, the resource configuration panel gives an overview of all the state of any *Akonadi* services you may be using.

are the two most popular protocols used to send email from the server to your client. Most people use IMAP, because it allows you to leave the email on the server and only browse through subjects or download email on demand, if you need to. *KMail* supports IMAP push, which will inform you immediately as soon as you receive an email, rather than relying on polling the server every set period. It also allows you to check your email through other portals, such as through a web browser through Gmail or *RoundCube*. This isn't normally possible with POP3 as emails are usually deleted after they're sent to your client (this is an option for IMAP too). You may prefer to download and delete emails, as it reduces your online footprint and pulls all your email onto your hard drive, under your direct control.

We're using online services like Gmail as a convenient example, but it's important to remember that you can also pay for or install your own email domains and servers, so that you're in control of every aspect of your email. This won't necessarily make it any more secure – email is still sent from one server to another as plain text, with no guarantee of validity unless there's a chain of encryption – but it removes your data from the meta-crawling context gathering of most online services. Even if you're using an email client with a web service, this is still a step in the right direction. *KMail* is more extensible and more powerful than even the best web interface. With your own server, as long as you're using the typical ports for IMAP or POP3, you'll be able to enter your details just as you would with any other mail service.

After entering the details, you need to click on Create Account rather than Next, as this will just re-detect the server settings for you. Create Account will add your details to the *KMail* configuration, and you'll be asked to create a KDE Wallet if you don't have one already. This is a global password holder that stores important information, such as your email login

details, behind a single password. After setup has completed, click on Finish. *KMail* will now go off and download your email and the time this takes is going to be entirely dependent on how much email is stored on your account and the speed of your connection. 2GB of email took about 20 minutes to synchronise with *KMail* for us, with a decent internet connection.

The main window

With a fresh installation, *KMail*'s default window will list your various email sources within a panel on the left-hand side and a simple 'Changes' page on the right listing whatever's new in each version. But after your accounts have synchronised, you'll find that the window on the right gets split into two. When you select an inbox or a folder from the panel on the left, the list of emails contained within that folder are listed in the top panel on the right, while the contents of any email you end up selecting will be shown in the bottom-right. You can change the size of any of these panels by click-dragging the divider. If you drag this divider to the border of the panel window, it will close one of the windows, and this can only be opened again by click and dragging the border down from where it's now locked in place. This is difficult to spot if you don't know there's a 'minimised' panel there.

Folders in *KMail* are powerful. Right-click on one and select Folder Properties to see what we mean. You can have a different identity for each folder, for instance. Identities can be added and edited from the main Configuration panel (Settings > Configure KMail) and using a different identity for a folder might be useful if it contains email forwarded on from a different account, or a different Linux alias. They're also useful for mailing lists, where you may want to use a different identity or email address, and there are further options for mailing lists hidden within its own tab. You can customise how your reply will look and how the folder appears and is sorted, completely

LV PRO TIP

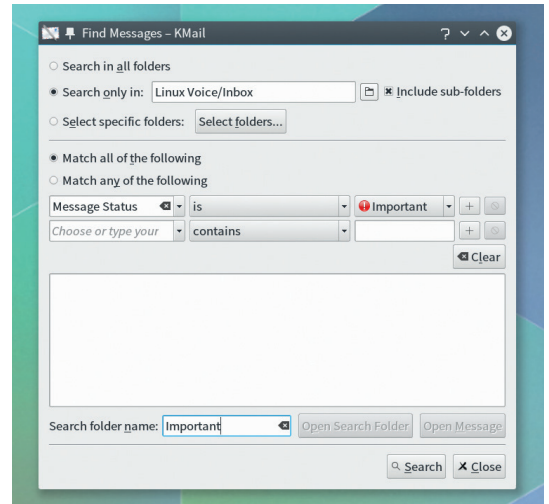
You can only run one instance of *KMail* but you can tab different views and open more than one window. Most configuration panels can also be opened at the same time.

Virtual folders

Yet another of *KMail*'s great but undocumented features is its ability to create virtual folders. These are equivalent to Gmail's labels, and they enable you to sort email into dynamic groups without moving them from your inbox. You could use them to hold messages you've flagged as important, for example, or messages where you've added a descriptive tag, or even a folder to contain your previous searches. The secret to creating virtual folders is to use the search dialog, because it's from there that you can save your search as a new folder. Open this dialog window by pressing S or clicking on Find Messages in the Edit menu. The window allows you to specify an inbox or folder and then to create a list of conditions that will need to be met for the search to return results. When you click on Search,

the list view will be populated with results. You will now be able to enter a search folder name, which you can save by clicking on 'Open Search Folder'. This creates a virtual folder that will be listed alongside your other folders, and we'd recommend making this a favourite in the same way you would your other folders. It will automatically update with any new results for the search you entered, and can be removed with a right-click and 'Delete Search'.

Virtual folders automatically update when an incoming email matches a certain search criterion. But you can also use them to list flagged messages, such as those you've marked as important.



LV PRO TIP

KMail is a little over-paranoid about HTML email, but it can render them without trouble if you enable the option in the security tab. We'd highly recommend sticking with plain text for your own emails, however.

It makes more sense to have a three-column view for emails, especially with the wider aspect ratio of most modern displays and laptops.

independently of any global settings or how messages are listed in its parent folder.

One of the first improvements to the layout we'd recommend is dumping the default list of every email folder you've likely already created and switch to viewing only those you mark as favourites. This will help if you don't want to see folders such as Drafts, or Spam, or Sent. There's a separate panel (of course!) for favourites, and it's above the mail folder view. You can drag it down if it's hidden, and when empty, greyed-out text states "Drop your favourite folders here..." You can make any folder a favourite by right-clicking on it and selecting "Add Folder To Favourites". This may not make sense until you drag and hide the default list, leaving you only with those favourite folders you want to see. The Favourites view uses an icon view, but we find it more useful as a list. Right-click within the panel and select the Mode sub-menu. This gives you the option of switching to the list view.

We're also not too keen on the way the message list appears above the message preview window. This is because we'd rather see a long list to provide context

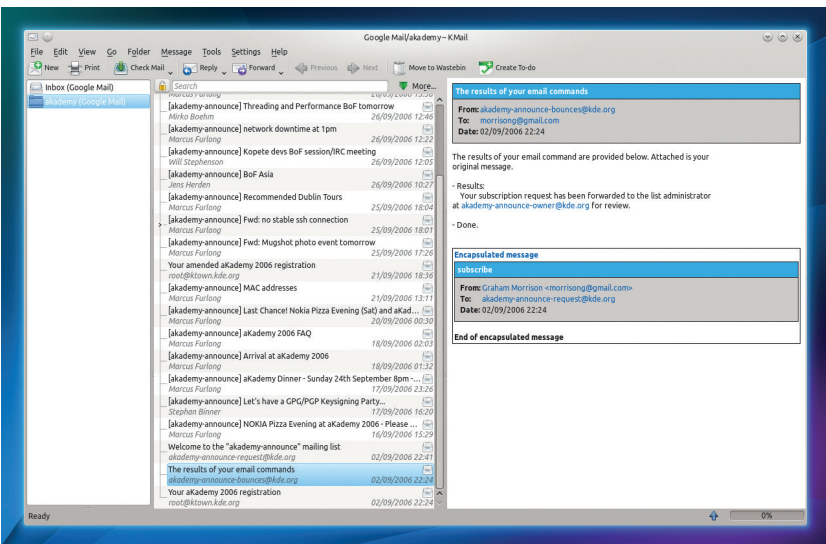
in the case of longer conversations, and the 6 or 7 messages that fit into the default view aren't enough. The ideal solution for us is to move the messages list view into its own panel, and the ability to do this is the last option hidden under the Layout tab in the main configuration panel. Select 'Show The Message Preview Pane Next To The Message List' and the main user-interface switches from two columns to three, with the folder list/favourites on the left, the message list in the middle and the preview pane on the right. You can now drag the borders between these to adjust their horizontal size. In our opinion, this makes *KMail* far more usable.

Changing the message list

Two of *KMail*'s most powerful features are the theming and sorting engines which manage how the message list is displayed, and both of which can be different for different folders or views. This stuff is complex and little-understood, so we're going to try and explain them both here and how you can create your perfect setup. If you get a lot of email, they both allow you to fine-tune the appearance of your inbox to give maximum context to your messages without you having to resort to clicking on them.

How messages are listed is the result of three specific configuration options. The first is the aggregation mode. This governs how messages are threaded, or appear tabbed in from parent to child so that messages are grouped by conversation. The second is how those parent messages and their children are sorted, as once you've included older messages in a thread, you need more control over which messages appear where. Finally, there's the theme options, which change how each header is displayed, along with the icons and actions that can be performed on a message. All three of these options are accessible from the View > Message List menu.

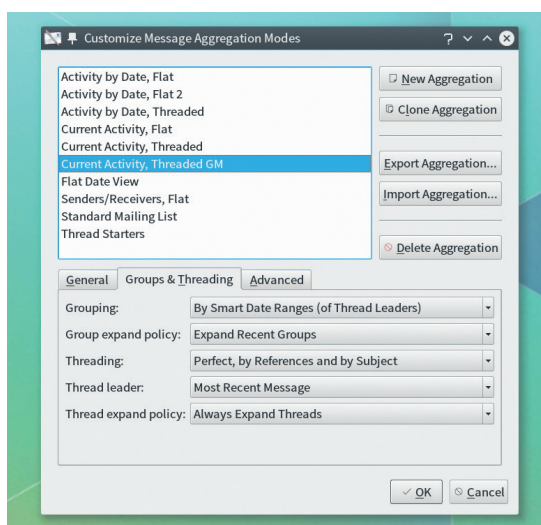
Before you can understand sorting, we need to understand what *KMail* calls message aggregation.



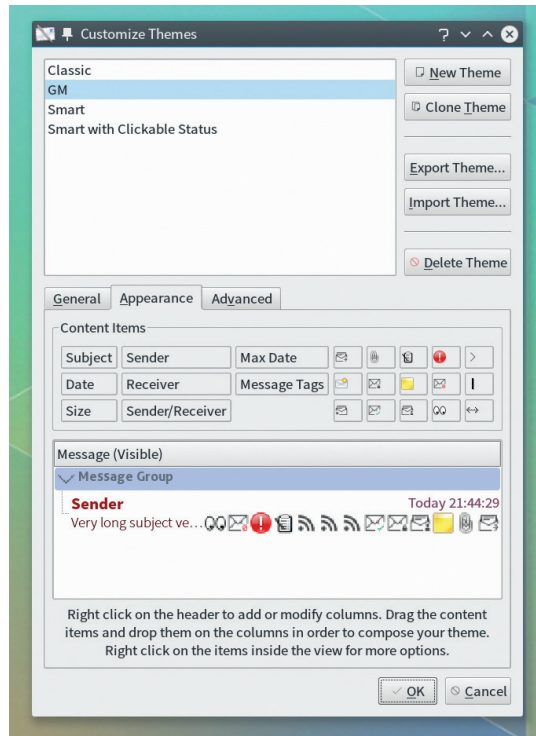
Aggregation in this case means the way that related messages are grouped together, mostly as a threaded conversation, but it also groups messages together according to the day. The 'Activity by Date, Flat' aggregation option, for instance, simply lists all the emails you've received today, with a marker dividing previous days. 'Flat' means there's no threaded view of the conversation. 'Activity by Date, Threaded' is the same only with the emails branched off the first email in a thread when you click on the small cross to open the thread contents. A thread will include emails earlier than the date if *KMail* thinks they're part of the same activity, with the latest email added to the bottom of the list. The next two options are very similar. 'Current Activity' is used to try to make an intelligent guess about the date of an email. Next there are aggregations that are easier to understand, including 'Thread Starters', a list of contacts and your conversations, a flat date view and a shallow list.

Most importantly, you can create your own aggregation theme by selecting the 'Configure' option at the bottom of the menu, which is exactly what we've done. We like to see threaded, open conversations arranged by the date, so we duplicated this configuration, opened the 'Configure' window and used the 'Grouping and Threading' tab to fine-tune the automatic expansion of threads, the smart date ranges and which messages are used at the head of a thread. You need to be slightly careful, because some of the aggregations will place new messages in past days as they attempt to keep new email together with an old thread. We also use 'Perfect And By References' as the threading policy, so that threads don't become huge as *KMail* tries to keep every email you've ever sent. You can then save your own aggregation and use this on specific folders or globally.

And that leads us onto something closely linked to aggregation – sorting. Sorting options for the message list can be adjusted by selecting 'Sorting' from the View > Message List menu. Message sorting comes after aggregation, so you'll still get the




How messages are grouped and threaded can also be customised to fit the way you work.



Almost anything about the way the message list is presented can be changed with the theme editor.

same view, but it allows you to switch between how activities and threads are displayed. Nearly all of this, such as 'By Date/Time', 'By Sender' or 'By Receiver' are self-explanatory, with perhaps the exception of 'By Date/Time of Most Recent in Subtree'. This is a reference to which message in a thread is used to group them together.

Finally, we get to change how the message list is rendered. This uses a small selection of themes that will change the font, position and information for exactly what information is included in each list item, as well as where each component is placed. You can customise the theme and download new ones, and we think it's worth experimenting with because there are more options in the simple window that appears than you'll find in the whole of a supposedly more complicated application such as *Gimp*. You can change everything, from the icons' size and text colour, to how much the edges are rounded, and the way in which the background and foreground colours are rendered. Our layout has a 'bold' sender field in the most prominent position with the date and time to the right. Beneath this is the subject followed by the icon symbols. We feel this is the perfect balance. The only option we couldn't find was a way to reduce the size of the indentation in threaded items.

All this leaves us with a vastly improved email client and one that looks like it belongs in 2015 rather than 2005. That *KMail* offers all these options is brilliant, even if that leaves us floundering for their meaning, and we like the contrast you find in *KMail* with an application like *Geary*, which we also like a lot but we just wish it had more options. 

Graham Morrison is a lapsed KDE developer and the editor of the magazine you're reading. He gets a lot of mail.