Roundup

Every month we compare tons of software, so you don't have to!

PHOTO MANAGERS

If you need to get your digital photo collection in order, Andy Channelle has just the collection of apps for you.

Digital technology has transformed photography. In the past, cameras came out for special occasions and users had to shoot sparingly because it was so expensive to get prints developed. In contrast, the advent of decent camera phones means people often have a camera to hand all day, every day. Moreover, you no longer having to process 23 blurred images of your thumb just to get a decent picture of your wife/kids/dog. Both of these developments have led to a huge increase in the number of pictures people take and, subsequently, a growing need for computer applications to handle the results.

There are loads of Linux applications capable of dealing with your digital image collection, but which of these is best for you?

For this Roundup we looked for software that makes managing, editing and distributing snaps easy and fun. Of particular importance is the ability to add notes or tags to images and then search the collection based on this information – this is a prized feature because most digital images start out called something unhelpful like **dcf00056.jpg**. And while we don't expect any of these apps to challenge *Gimp* in the editing stakes, having to fire up a fully-fledged graphics application to change the orientation of a portrait shot or remove a bit of red eye is a pain, so some editing capability is also helpful. As these are desktop-focused applications, we put a premium on ease of installation and user-friendliness. Finally, we like applications that make it easy to show pictures either locally in the form of slideshows, or on the internet with HTML galleries or, even better, through services such as *Flickr* and Fotopic.net.

We tested each piece of software on an AMD Athlon XP 2500+ with 512MB of RAM running SUSE Professional 9.3. This was loaded with 2,730 digital photos of various sizes taken over a period of six years.

ON the DISC

OUR SELECTION AT A GLANCE

F-Spot

Mono-based app with some nice ideas.

■ **VERSION** 0.0.13 ■ **WEB** www.gnome.org/projects/f-spot
■ **PRICE** Free under GPL

F-Spot has been acclaimed in this magazine as one of the most promising Linux programs to emerge this year. It was built using the new Mono platform, so you'll need the Mono runtime installed first. This is a recipe for dependency hell, but fortunately most distros should ship with both Mono and *F-Spot* available through the package manager.

Once it's set up, you can add photos by selecting File > Import and choosing a directory. It took us just over two minutes to index and display 2,500-plus images in the browser window. *F-Spot* is EXIF-aware, so pictures will be arranged by the date of the photo; the rest of the EXIF data can be viewed by selecting an image and hitting Ctrl+I. *F-Spot* can also grab pictures directly from a camera.

possible to revert even after the application has been shut down and restarted. This could lead to wasted disk space if you do lots of edits, so you should remove some of the different 'versions' as you work toward perfection. To make this process easier, versions can be renamed, saving the trauma of having to remember whether it was **modified1** or **modified3** that had the red-eye removal done.

For local display there is a quick 'full screen' option and a good but basic slideshow option that displays all the images in the browser window.

Online sophistication

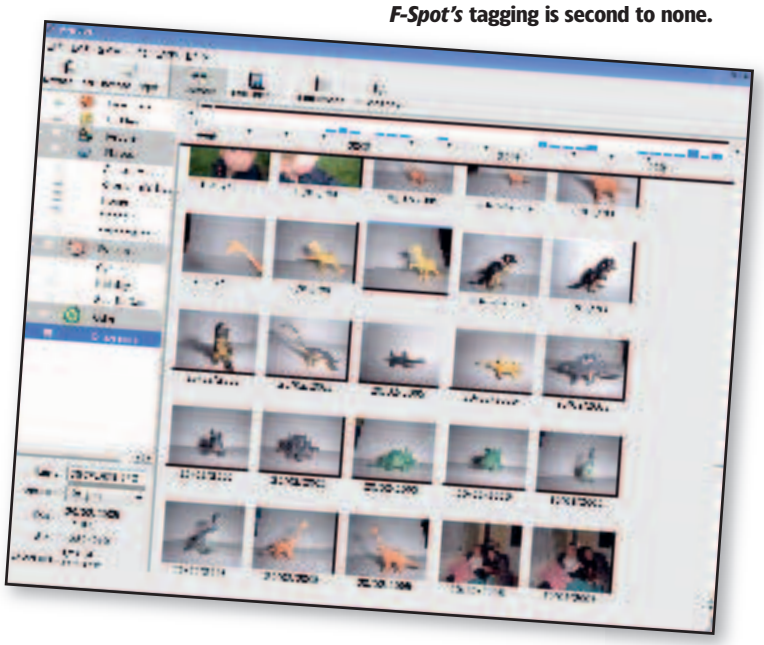
Another great feather in the *F-Spot* cap is *Flickr* integration *(see What Is Flickr? box, below)*. Images can be uploaded to your account from within the browser and, joy of joys, it turns the *F-Spot* tags into *Flickr* ones, appending existing ones as needed.

"THIS IS A VERY SMART APPLICATION THAT MAKES TAGGING IMAGES EASY."

F-Spot's tagging system can add tags to hundreds of images at a time if necessary. The tags are all user-definable so you can build up a comprehensive list of people, places, events and concepts on your PC and then assign different tags to images. Sorting images is then simply a case of selecting tags in the sidebar; everything tagged with that word will be displayed.

Ranged along the top of the browser window is a calendar widget, which uses a bar chart metaphor to display how many pictures you've taken in each month. Clicking on any of these 'bars' jumps the browser to the first image of that month. In tandem with the tags, this is a great way to find the right picture every time.

Double-clicking on an image will open it up into the main window, and from here you can make minor colour adjustments, crop and resize the picture to a number of preset sizes, and remove red eye. Changes are made to a copy of the image (the original remains untouched) so it's



***F-Spot's* tagging is second to none.**

F-Spot is a very smart application. It makes it easy to systematically tag your pictures, which is essential if you're going to do any cataloguing. You can remove images from the library or delete them entirely, and the whole thing runs along at an acceptable speed.

It would benefit from a good undo system – this is in the pipeline – but as it stands, the system of creating new images for each change is at least workable, but does rely on the user to organise things. It would also be nice to have some sort of 'virtual' file system to build collections for specific purposes without affecting the library as a whole. And despite being simple to use, it could really do with some proper documentation.

The future's bright for *F-Spot*. Further integration with Gnome and other Mono projects such as *Beagle* search and perhaps even the *Tomboy* note application are very exciting prospects, but even at this early stage, this is a welcome addition to the desktop 'lifestyle' sector.

LINUX FORMAT VERDICT

A product well on its way to becoming the *iPhoto* of the Linux world.

RATING 7/10

WHAT IS FLICKR?

***Flickr* is a photo sharing service that has managed to attach itself rather effectively to the blogging phenomenon. Users can join the service for free and post their pictures to *Flickr*'s servers (paying customers get extra features, such as more storage space).**

Each image (or folder of images) can be designated public or private and can also be tagged with a number of keywords. You might, for example, take a picture of the moon each evening from the same spot in your garden; these could then be tagged with the words 'moon', 'garden' and 'August' and the date, and posted to your *Flickr* space. Users searching for pictures of the moon would probably then be presented with your images, especially if their search string also involved the words 'garden' or 'August'. You can get around this by restricting access to your pictures.

As well as being an excellent complement to the likes of *F-Spot*, the service has an excellent tool called *Organizr*, which runs entirely within a web browser using Flash. This makes it easy to access and manage your photos regardless of your location. *Flickr* is also brilliant if you plan to use photos in tandem with a weblog, as images can be hosted by *Flickr* but accessed from, say, a Blogger account.

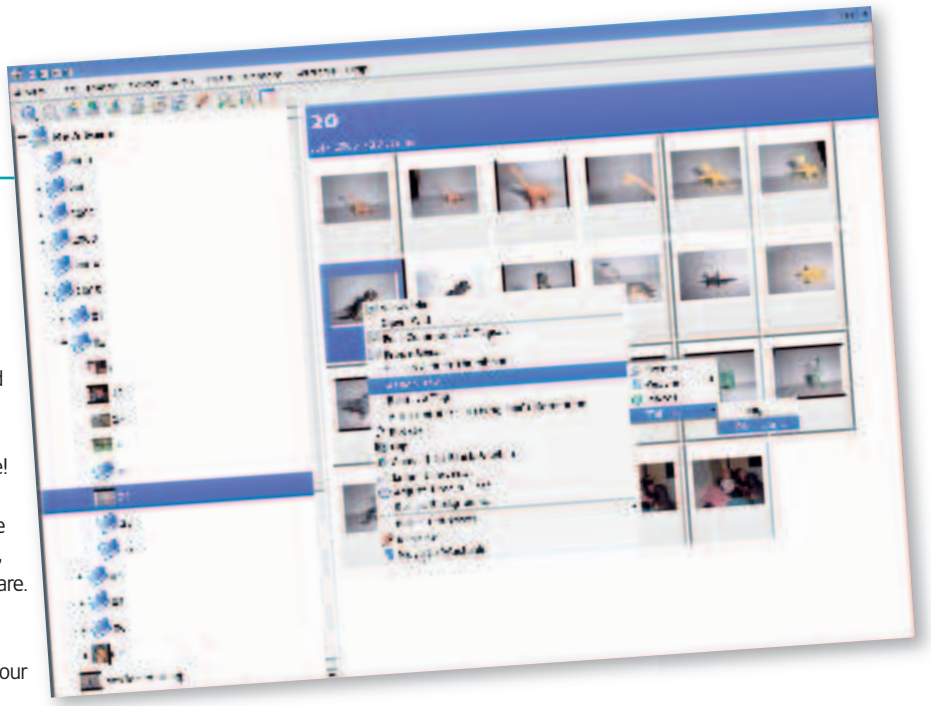
The free *Flickr* account has a 20MB per month upload limit and will display only your 200 most recent images, so if you plan on making the most of it, upgrading to the Pro account (at $24 per year) is recommended.
www.flickr.com

***Flickr* can make all your photos available from anywhere.**

DigiKam

Comprehensive project.

■ **VERSION** 0.7.3 ■ **WEB** www.digikam.org
■ **PRICE** Free under GPL



***DigiKam* makes everything available from a smart, comfortable interface.**

***DigiKam* has been around for a** while, but doesn't have the glamour of some other photo management apps. This is a shame, because it does the job efficiently and with style. It also has a vast suite of plugins available for adjusting, styling and distributing images and collections. In fact, *DigiKam* is the archetypal all-rounder, and because it works with an already established file system – appended with its own small database file – it's worth having on every system.

The user interface is based on familiar KDE conventions: the left of the window displays the file tree while the main section shows either thumbnails or large versions of each picture. A pop-up appears when the mouse is hovered over an image, and this displays the EXIF data and any notes associated with it. It's possible to display information just below the thumbnail images, but this can slow the application down quite markedly. We also noticed that when the app displays a date, it shows the date when the photo was uploaded rather than the date that the photo was taken, which would have been far more useful.

File management is very easy, but be aware that any changes made within the album tree will be performed in your actual filesystem. So creating a new album will make a new folder on your system, rather than just build a virtual folder and populate it with links.

Handy deletion

The tagging system is similar to *F-Spot*'s, but without the advantage of having tags available in the side panel. It's still possible to assign or remove tags to multiple selections, but this is done through the right-click service menu. Other excellent management tools include a duplicate image finder, which creates a digital thumbprint of every image and offers up similar ones for manual deletion. Beware! The images it finds may not be exact duplicates, so delete with care. Building and comparing the thumbprints on our whole collection took just under three minutes, and once deleted the pictures are moved to the desktop's wastebasket. This is very efficient, and we can recommend *DigiKam* on the strength of this alone, especially if your image collection has been mangled by some other management program.

DigiKam handles EXIF data well, and can be used to embed short notes into the data space, so those notes will be accessible by other compatible applications.

"WHERE DIGIKAM REALLY SHINES IS IN OUTPUT AND DISTRIBUTION."

Thanks to the plugin system this application can access quite a selection of external image manipulation tools, such as an 'oil painting' filter and various colour filters (sepia, black and white, and so on). There is also a handy red-eye removal tool and options for cropping, resizing and blurring.

Where *DigiKam* really shines, though, is in output and distribution. You can opt for exporting in HTML gallery format, as a new album or as a slideshow. Slideshows to be displayed locally can have a number of transitions (including OpenGL ones with appropriate hardware), and the whole thing, including audio, can be output to an MPEG file on formats including VCD and DVD. You can also email images, a feature that, while not as elegant as *F-Spot*'s *Flickr* integration, does at least mean you can send images to the service from your desktop.

This is an excellent all-round application that does most tasks with aplomb. The fact that it doesn't make an enormous impact on the filesystem means that any (small) shortcomings in the app can be remedied by using, for example, *F-Spot* for Flickr management or *Kalbum* for HTML gallery building.

LINUX FORMAT VERDICT

If you have a digital camera, install this.

RATING **8/10**

DIGITAL CAMERAS AND LINUX

You can almost guarantee that any digital camera you buy will be usable with your Linux PC. It wasn't always the case, but most devices purchased these days will be accessible as a standard USB mass storage device – that is, once it's plugged in to a PC, the operating system will recognise it as an external hard disk and mount it to the desktop as a normal hard disk. You will then be able to move photos from the camera to your disk using a simple drag and drop procedure.

If your camera fails to mount properly, it may mean that the OS isn't set to auto-mount new devices, and you'll have to do the job manually. To do this, first plug the camera in – making sure it is switched off – then open a console and type

```
dmesg
```

This will output a ton of system messages to the console when you switch on your camera. If this output includes something along the lines of

```
localhost kernel:  Initializing USB mass storage driver...
```

or

```
localhost kernel: scsi1 : SCSI emulation for USB mass storage device
```

then you know the computer has recognised that the device is attached. It also says it is using SCSI emulation to access it, which means it will be given the device name 'sda1'. It should now be possible to mount the device using the following command:

```
mount /dev/sda1 /mnt
```

The device will then be accessible from within the /mnt directory using your normal file manager. If 'sda1' doesn't work, you may have other SCSI devices attached to your PC. Try 'sdb1', 'sdc1' and so on until you hit the mark.

For cameras that don't use the USB mass storage protocols, you will need to install *GPhoto2*, which is available on virtually every Linux distribution and provides automatic access to over 600 different digital cameras.

Applications such as *DigiKam*, *F-Spot* and *KimDaBa* can automate the process of importing photos into your central library further and also allow the creation of a tag that can be applied to every image in the whole set, and that can be used as a 'roll name' to make searching more efficient in the future.

■ For more on auto-mounting devices, read Neil Bothwick's tutorial on page 82.

GThumb

The new kid on the block.

■ **VERSION** 2.6.6 ■ **WEB** http://gthumb.sourceforge.net
■ **PRICE** Free under GPL

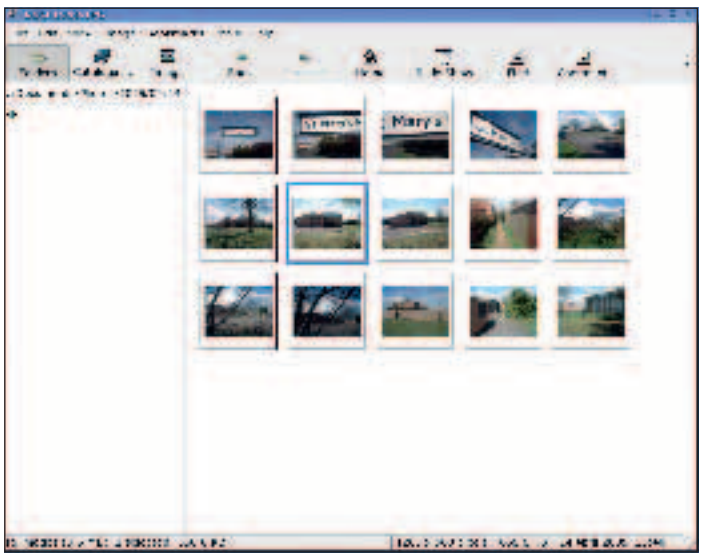
***GThumb* is usually installed as part** of a default Gnome system, and its primary purpose is as a multi-format image viewer. It does, however, have some features that help it to rise above that humble station.

As with *DigiKam*, *GThumb* works with an already established filesystem rather than creating its own hierarchy. Its weak point has to do with access: where other application on test here have visual representations of the file tree available, *GThumb* suffers from having the old Gnome system whereby only the folder you are in and its subfolders are displayed.

To go to a higher folder, you double-click on the two periods (..) widget until you're in the right place. It is possible to manually enter a full path (something newer Gnome applications have done away with), but these are still inefficient ways to work.

Rather than using tags, *GThumb* uses a system of 'comments' and 'categories' to define locations, people or events. The problem with this system is that data is not explicitly saved with the images, meaning that if an image is moved from one folder to another outside of *GThumb*, the associated comments and categories are lost.

However, one thing *GThumb* does do is enable the creation of catalogues, which the developers handily compare with the playlists you might create in an MP3 application. It's possible to create a catalogue called, for example, 'Holiday', and populate this with links to images without moving the images themselves. Adding pics simply involves right-clicking and selecting Add To Catalog... from the menu. These can then be exported to CD or to a web gallery, or used as the basis of a slideshow. The slideshows are of the fixed variety with few options to beautify the experience.



***GThumb* is a good companion for *Nautilus* but lacks solid features.**

Overall, *GThumb* feels a little in need of attention. The minimal tools for fixing and displaying images work within their limitations, but stacked up against even the newest applications here it doesn't really cut it. For Gnome users it's a handy utility to have around – working in conjunction with *Nautilus* – but for anything approaching serious or sustained use, *GThumb* is out of its depth.

LINUX FORMAT VERDICT

A good, stable image browser that lacks the features to make it essential.

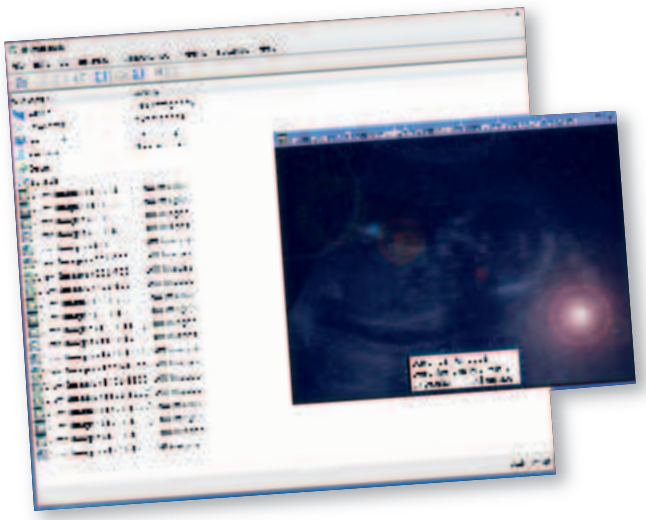
RATING **5/10**

KimDaBa

Nice app, shame about the name!

■ **VERSION** 2.1 ■ **WEB** http://ktown.kde.org/kimdaba
■ **PRICE** Free under GPL

The really good thing about *KimDaBa* is its ambition. The authors have definite ideas about the quickest and most efficient way to navigate through hundreds and thousands of images. The only problem is that their ideas will take some getting used to. The first few times you use it, you may find that you're wandering back and forth through different lists, clicking icons wildly and wondering where on earth the photos are. There is a sensible feature in there somewhere, it just needs a little more thought in the presentation department. The problem lies in the positioning of the icon that will actually take you to the images; it appears at the bottom of a list of icons that doesn't really change, so it's easy to miss.



Unusually, the slideshow runs in its own window.

KimDaBa stands for KDE Image Database and, as this suggests, the application is built on the idea of an internal database that handles the tags, changes and movement of images. The benefit of this system is that it's really fast even when navigating enormous collections. When we changed the thumbnail preview size with over 100 images on screen it was almost instantaneous – even when the computer was busy doing other processor-intensive stuff in the background. The disadvantage is that it's difficult to export comments or tags to different systems. It also means that you must remember to save your changes – though there is an autosave function buried in the Configure KimDaBa dialog.

KimDaBa comes with a range of plugins, which deal with importing, exporting and adjusting images. Some of these are shared with those available in *DigiKam*, so the facilities in that application are largely duplicated here. Perhaps a decision between *KimDaBa* and *DigiKam* will come down to which interface you find most useable. *KimDaBa's* database is powerful, but the interface obscures too much during early use. The UI becomes easier to use with time and practice, but as a piece of consumer software it should probably work within the conventions that most people expect. Perhaps splitting the interface in two might help, keeping the navigation tools on screen even when browsing the thumbnails.

There is also a serious bug in the version we tested that prevents the thumbnail gallery from wrapping round the window. This made for extremely long windows running off both edges of the screen.

LINUX FORMAT VERDICT

A little confusing on first use, but gets better with age. And it's really fast.

RATING **6/10**

KPhotoBook

Immature but extremely promising.

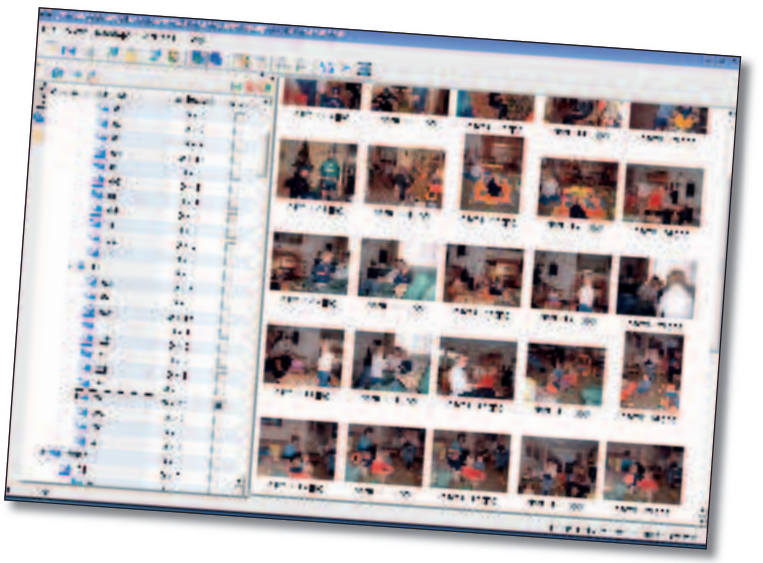
■ **VERSION** 0.0.6 ■ **WEB** http://kphotobook.berlios.de
■ **PRICE** Free under GPL

***KPhotoBook* (*KPB*) is spanking new**, so it's the only application reviewed here that we had to build from source. This was simple enough as *KPB* uses mainly chunks of KDE, as you'll see when you start it up.

We included it here because it combines the best bits of *DigiKam* with the superior tagging skills of *F-Spot*. There are plans to implement support for the same *Kipi* plugins system that *DigiKam* and *KimDaBa* use. *KPB* goes further, though, with the ability to combine tags using Boolean operators so you can search for images of Rita and Sue, excluding images with only Sue or only Rita. Navigating the photo database and tagging images is not yet as simple as it is in *F-Spot*, but it's getting there. *KPB* can also lock tags to prevent mistaken deletions.

The program uses *Konqueror*'s display/rendering system, so it integrates well with the rest of KDE. The familiar interface has options to use a standard tabbed interface to access the file tree, tagging tools and EXIF data, or the IDEAl/sidebar system that a number of KDE apps including *Konqueror* and *Amarok* have recently adopted. The sidebar system makes better use of available space, but it feels a bit clumsy moving from the file browsing to the tagging interface. Some sort of compromise – perhaps involving the as-yet unused right-click service menu – is really needed here to streamline the all-important process of tagging images.

At present, and in contrast to many of the apps here that centre on the viewer, *KPB* is strictly a management/database application; there are no tools for slideshows, image editing or even for displaying larger versions of thumbnails.



It's still early days yet, but a quick look at the project's roadmap suggests that the developers have ambitious plans for turning *KPB* into the standard image management app for the KDE desktop. There are some important bits missing at present – in fact, many of the tools that make this kind of software so desirable – but what is available is smartly done and easy to use. It will be well worth keeping an eye on this project in the future.

It's nowhere near finished, but exciting nonetheless. *KPhotoBook* is one to watch.

LINUX FORMAT VERDICT

An application with the potential to become the standard KDE photo app.

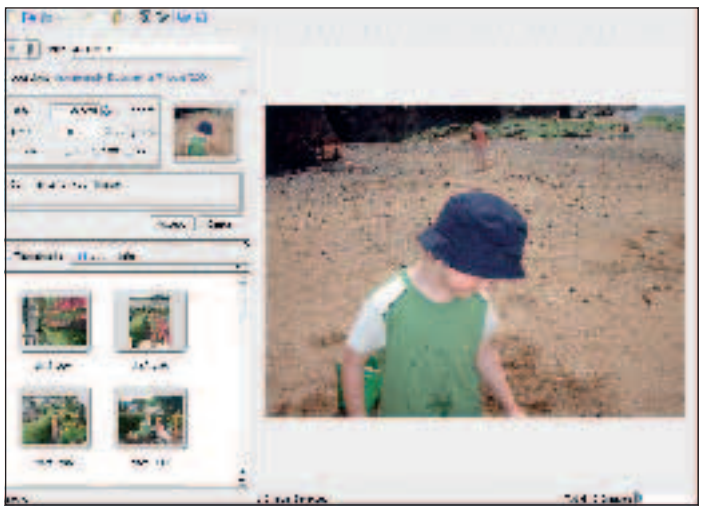
RATING 5/10

Kalbum

A focused application in need of some TLC.

■ **VERSION** 0.8.0 ■ **WEB** www.paldandy.com/kalbum
■ **PRICE** Free under GPL

This application, written by *LXF* scribe Graham Morrison, is aimed at the export and distribution end of the spectrum. That is, rather than being a tool for managing an entire photo collection, it works in tandem with the file manager (or a more comprehensive management app) to create good-looking HTML galleries for uploading to a web server. However, it can be pressed into more extensive use with a little lateral thinking. For instance, you can make individual albums for each month and then open them as and when needed. Pictures can be renamed and have notes associated with them, and can be moved around within the structure of the album.



Despite its age, *Kalbum* has a really useable interface that gives the user lots of information.

Kalbum's forte is in preparing and outputting complete albums for viewing on the internet, and to this end it integrates a decent FTP client to make uploading as painless as possible. As such, *Kalbum* may be worth exploring if this forms a large part of your photography habit, though to get the most of it you should use it as a complement to an application such as *F-Spot*.

There is an unfinished air about *Kalbum*, especially as the only available template for HTML output is looking a little dated, though it uses tabs quite well. In truth, the whole application is in need of a little love and attention. The final results look OK, but there's not much beyond changing the colour of the background that can be achieved for the actual output. That said, for static pages of images it does the job; but stacked up against the abilities for management access, design and tagging that is displayed by *Flickr*, *Kalbum* falls well short.

One thing *Kalbum* does well is displaying information. The user interface is divided up into fairly sensible sections and so makes accessing notes, EXIF data and other information associated with an image an easy job.

While not up to the job of general image browser, *Kalbum* could have a future as a smart *Flickr* 'uploadr'; with the FTP end already sorted, the author would just need to integrate some of the tagging features of *Flickr*'s API and this would be a good, simple and focused application.

■ Read Graham Morrison's diary of developing *Kalbum* in *LXF72*.

LINUX FORMAT VERDICT

Limited but focused, *KAlbum* could do with some attention from its developer...

RATING 4/10

PHOTO MANAGERS
THE VERDICT

As OS X and Windows have excellent digital photo managers in Apple's *iPhoto* and Google's *Picasa* respectively, Linux needs an application approaching the form and function of these. Thanks to some smart work in the development community, it does. While *DigiKam* is the clearly the best application here, *F-Spot* and *KPhotoBook* both ave real potential to steal the top spot.

DigiKam combines an easy to use interface with a stupidly comprehensive feature set. It doesn't yet have the *Flickr* integration that *F-Spot* offers, but there is someone somewhere currently beavering away on a plugin as you read this. The plugin is in the early stages at present (we couldn't get it to install, but it's nice to know that the issue is being tackled).

***DigiKam*: the best combination of ease of use and advanced features.**

While *DigiKam*'s developers have paid a lot of attention to the interface and have added genuinely useful features, the adoption of *Kipi* plugins broadens the application's scope enormously. The facility to output high-quality multimedia slideshows to DVD would be especially useful to a dedicated photo-sharer, as not everyone will have the hardware and software available to play back a Linux-centric one.

F-Spot deserves an honourable mention, especially as it is such a young project. So simple even a child could use it, *F-Spot* also has the best tagging system that we have experienced on any platform, easily beating *iPhoto*'s keywords. Combined with the calendar widget, *F-Spot* makes finding the right picture easy, and this is vital for an application like this. Efficient tagging means effective searching, especially when a collection is counted in thousands of pics rather than hundreds. Throw in the class-leading *Flickr* support and you have an app that well deserves a place on your system. If the plethora of plugins that *DigiKam* offers seems like overkill, go for this one.

Not quite ready for the big time, but also worth checking out, is *KPhotoBook*. We were impressed with the way the developers appear to be thinking about navigation and tagging, and look forward to some really strong releases from them in the future.

All in all a pretty strong Roundup this month, offering a, er, Canon of apps that Linux can be proud of. LXF

OVER TO YOU

Did we over-develop our opinions of DigiKam at the expense of your favourite photo app? Sound off on the LXF forums at **www.linuxformat.co.uk**.

TABLE OF FEATURES

Name	Import from camera	Export to HTML	Export to Flickr	Tags	Slideshow	Red-eye removal	Colour correction
DigiKam	✔	✔		✔	✔	✔	✔
F-Spot	✔	✔	✔	✔	✔	✔	✔
GThumb		✔		✔	✔		✔
Kalbum		✔					
KimDaBa	✔	✔		✔	✔	✔	✔
KPhotoBook				✔			