

What's new with KDE 4.3?

GETTING THERE

At the beginning of August, the KDE project released the third major update of KDE 4 – reason enough to put KDE 4.3 through its paces and study the new features. **BY MARTIN STEIGERWALD**

KDE 4 got off to a slow start. Version 4.0 offered significant revisions under the hood, but the end user features still needed some polishing. Many users were disappointed with version 4.0, which was intended primarily for developers. Versions 4.1 and 4.2 were suitable for daily use, but KDE fans still had to do without a number of the features offered with KDE 3.

Version 4.3, alias *Caizen*, brings KDE 4 back to calmer waters [1]. *Caizen* refers to a Japanese philosophy of gradual or continuous improvement (*Kaizen*) [2].

Installation

Many distributions offer ready-to-run packages for KDE 4.3. Users of openSUSE can go to the KDE page [3] and install the necessary packages through YaST. Be sure to accept the signature keys for the new packages. To resolve a couple of conflicts manually, select *openSUSE Build Service* as the provider for Qt 4.5.2 and most other packages.

Packages for Kubuntu are available in the Kubuntu Backports PPA (Personal Package Archive). To add the required package source, use KPackageKit (*Settings | Edit Software Sources at Third Party Software*) or your favorite editor:

```
deb http://ppa.launchpad.net/
kubuntu-ppa/backports/
ubuntu jaunty main
```

From the *this page* link on the Kubuntu PPA Keys page [4], download the matching key. In *Authentication*, select *Import Key File...* to add the key. In the file dialog, make sure you change to your home directory and type * as the filter to locate the key file. Alternatively, type:

```
sudo apt-key adv --keyserver
keyserver.ubuntu.com
--recv-keys 8AC93F7A
```

The installation then occurs at the command line with:

```
sudo aptitude update ;
sudo aptitude full-upgrade
```

The minimum installation for the Debian Unstable branch is the *kde-minimal* [5] package. If you prefer the complete KDE desktop, you additionally need to install *kde-full*. Users with Debian Testing, alias *Squeeze*, will have to wait, and backports for Debian Lenny are unknown as of this writing.

Plasma on Air

KDE 4.3 uses the lighter, brighter *Air* as the new default theme. If you prefer the *Oxygen* theme, you can right-click the desktop and select it.

The Plasma desktop shell comes with a plethora of new features. You can add various plasmoid applets to workspaces to define what are referred to as *activities*. Spacers give you more flexibility for designing panels, and you can move plasmoids wherever you like. For example, you can move a large plasmoid from the desktop to the panel; clicking the plasmoid will then open an extender.

New and improved plasmoids simplify daily desktop tasks. The new *Bubblemon* load monitor uses a glass sphere, filled to a greater or lesser extent, to in-

dicating system CPU and memory load. (In our lab, the sensor caused an unusually high level of CPU activity, so be careful when you scale up the sphere.) Other sensors display battery charge state, CPU frequency and load, and RAM statistics.

The new openDesktop plasmoid makes it easier to find other KDE users in your neighborhood, but first you need an account with openDesktop.org, the umbrella organization for KDE-Look.org, Gnome-Look.org, and other desktop-related community websites. The plasmoid uses the GeoLocation service to discover KDE users in your neighborhood. The Register button uses an unencrypted HTTP connection to open the website with the registration form. Changing the URL in your browser to *https* to encrypt your data is a good idea. Unfortunately, the applet also uses unencrypted connections internally. This issue was resolved in the new developer branch; KDE 4.3.1 will use HTTPS by default.

The Remember the Milk task planner gadget also interacts with an online service and uses unencrypted HTTP. The applet crashed fairly frequently in our lab. It might be a good idea to wait for a bug fix before experimenting with Remember the Milk, because plasmoids run in the Plasma process context, and a single applet crashing can affect the desktop as a whole. (If Plasma fails to restart after a crash, you can restart manually by pressing Alt + F2 and entering *plasma-desktop*.)

The folder view displays a preview of the object below the mouse pointer; you can set the file types for which you need this functionality. In the case of directories, content is displayed, thus support-

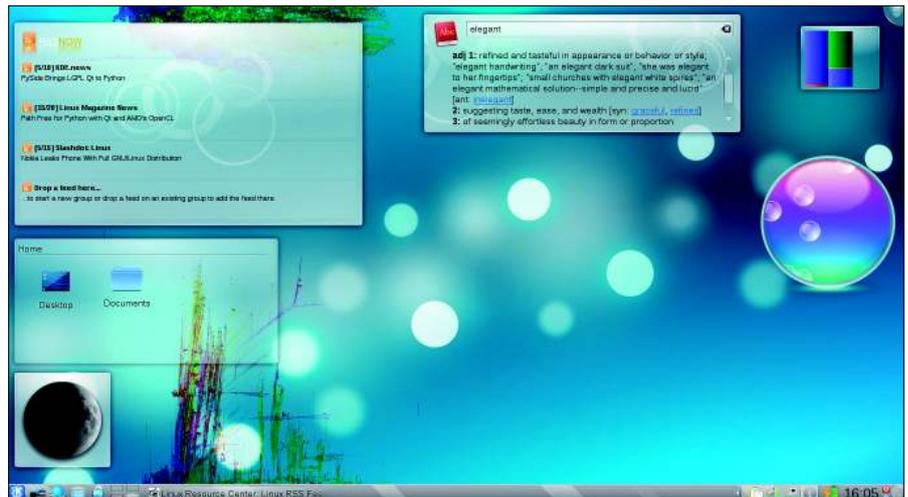


Figure 2: A viral desktop with a news feed, plasmoid folder view, moon, dictionary, system load display, and Bubblemon showing CPU user load.

ing fast, click-free navigation of the file system (Figure 1). The right-click menu contains entries for controlling the workspace. If you want to store a snippet of text for later use, select the text and press the middle button on the mouse to store the text as a notice on your desktop. If you click the *T* button, the Notice plasmoid gives you more formatting options. Additionally, Plasma now has animated wallpapers, such as Mandelbrot fractals, the Marble globe, or a virus that eats up the desktop (Figure 2).

The Desktop

The system area in the control panel groups messages that belong together and hides the messages after a while. If you want to receive notifications, you can choose to show messages from applications, from file transfers and other actions, or from all sources. Unfortunately, with a large number of messages,

ungrouped messages had to be closed individually, and it was impossible to open the view if more than 30 or 40 messages were present. Sometimes, the system tray did not fully display messages.

Also, you can configure the icon categories to display in the system tray. The applet will only display some icons in an expanded state, which you define with *Automatically hide* in the settings. Additionally, the system tray offers a new framework for communicating with applications, designed to resolve issues in the previous approach. The KGpg key manager already uses this framework.

KDE's KRunner application launcher tool now displays elements in a list and provides explanatory text (Figure 3). The help features, accessible via the question mark icon, are useful. KRunner can find programs, recently used documents, Kate text editor sessions, browsed websites, file manager locations, Konqueror profiles, and many other things. Konqueror web shortcuts are also useful. To view or change a shortcut, enter *Web shortcut*.

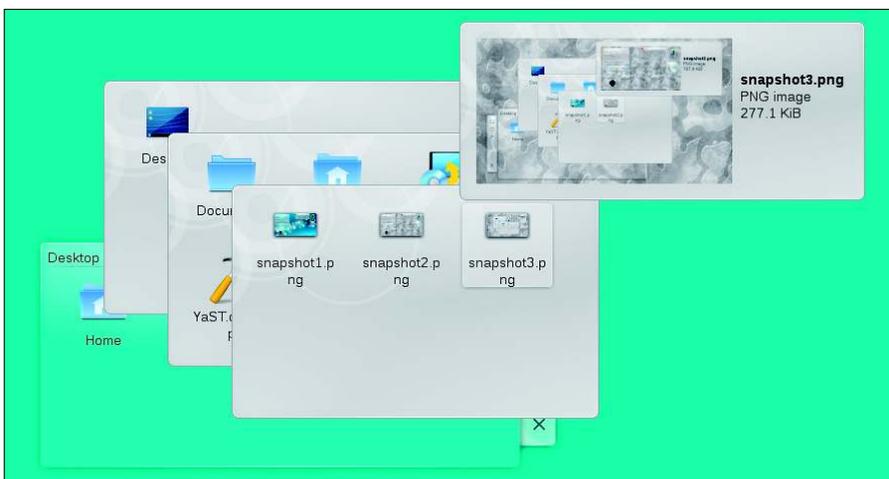


Figure 1: The new folder view lets you browse for files without clicking.

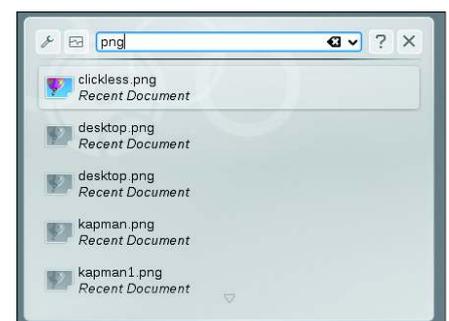


Figure 3: The new KRunner is tidier and includes help.



Figure 4: KDE 4.3 lets you flexibly modify the content of the traditional KDE menu.

The traditional KDE menu can show recently used applications and system preferences (Figure 4). The Klipper clipboard offers actions to match file names. From *Enable clipboard actions* in the Klipper context menu, you can enable and disable this practical, but somewhat pushy, function. Plans are to move this function to the background while retaining good accessibility.

The preferences reinstate the tree view so sorely missed by KDE 3 users. A module with settings for KDE's Solid hardware library lets you define actions for pluggable devices or insertable media.

The Dolphin file manager also has new functions. Thumbnail previews of image files become the icons for image

directories in turn. The program also offers previews for audio and video files. In *View | Sort by*, you can specify whether Dolphin should show folders before files or mix the two.

The new desktop search in Dolphin relies on Nepomuk and the Soprano RDF framework and is useful (when it works), either through the search box or by typing *nepomuksearch:/* as a URL. Soprano comes with the Reland C++/Qt4 back end, which didn't work consistently with any of the distros I tested.

While the Debian KDE team waits for a usable

back end [6], openSUSE and Ubuntu include the alternative Java-based Sesame back end in *soprano-backend-sesame*.

PolicyKit integration offers a standardized authorization mechanism for assuming privileges [7], although there is not much to see apart from the settings module right now. The idea is that programs that need root would launch a service that runs with root privileges and use PolicyKit to control access privileges for the service. PolicyKit is useful for tasks such as setting system preferences that need root privileges.

Applications

Things have also changed for applications: KMail allows users to add images

to HTML messages. KAlarm lets you export alarms to a calendar file, as well as set alarms for tasks pulled from KOrganizer. The Okular document viewer now reads the widespread Mobipocket eBook format developed by French Amazon.com subsidiary Mobipocket. The Marble virtual atlas now displays the moon and a couple of other planets, such as Venus or Mars, and integrates the Wikipedia and Flickr online services (Figure 5). The convenient Okteta hex editor now has a filesystem browser, an overview of the loaded document, and a bookmark management feature. The Ark archiver supports InfoZip archives and offers improved handling of GZIP and BZIP2 files. More intelligible error messages improve user friendliness. KGpg now imports keys from a key server, and not just from local files.

Game developers have also been busy. KDE 4.3 again includes the KTron game. Many games now use an Egyptian-looking default theme (Figure 6). KGoldRunner, a MineRunner clone, records and replays games. KPatience optionally stores the game status when you quit, allowing

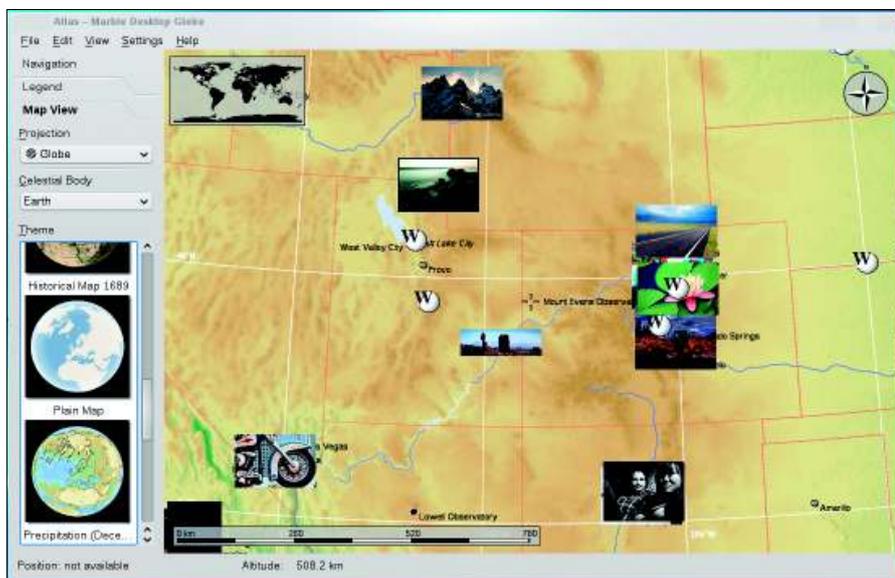


Figure 5: Marble integrates online services like Wikipedia and Flickr.

INFO

- [1] KDE 4.3.0 Caizen release: <http://www.kde.org/announcements/4.3/index.php>
- [2] Kaizen philosophy: <http://en.wikipedia.org/wiki/Kaizen>
- [3] KDE/KDE 4: <http://en.opensuse.org/KDE4>
- [4] PPA key server: <http://www.kubuntu.org/faq/PPA-keys>
- [5] KDE 4 in Debian Testing/Unstable: <http://pkg-kde.alioth.debian.org/kde4.html>
- [6] Strigi and Nepomuk in KDE 4.3: <http://lists.debian.org/debian-kde/2009/08/msg00029.html>
- [7] PolicyKit and KDE: <http://drfav.wordpress.com/2009/03/07/policykit-and-kde-we-are-ready/>

THE AUTHOR

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players to carry on with a game after a break. KMahjongg includes 70 new levels provided by KDE users.

Contributions

The reworked DrKonqi crash dialog makes it much easier to create error reports. The program relies on the GDB debugger to trace a crash and gives the user help if the required debug packages are missing. DrKonqi guides the user through the error report creation process step by step, lists possible duplicates, and sends the report to KDE project's Bugzilla. This allows users with little background knowledge to create error reports that are valuable to developers.

Conclusions

In our lab, KDE performed reliably and stably for the most part. Applications such as KMail, Dolphin, Konqueror, Akregator, Okular, Gwenview, KGet, and Marble were convincing in production use. The revamped messaging system and the Plasma activities feature also showed promise.

The Remember The Milk plasmoid had a habit of crashing the Plasma desktop. Improved protection of the desktop against potentially dysfunctional plasmoids would seem to make sense. Minor bugs in KOrganizer turned out to be fairly pesky. The upcoming bug fixes will probably help remove some of the problems with version 4.3.0.

I have to deduct a few points for the desktop search, which is still not implemented correctly and still doesn't work without some tinkering. KDE 4.3 printing is still not in the same league as KDE 3.5, and PolicyKit integration is still waiting to happen. Many applications have yet to implement the Akonadi personal informa-

tion store. Thus, KDE users have good reason to look forward to the next major release. ■

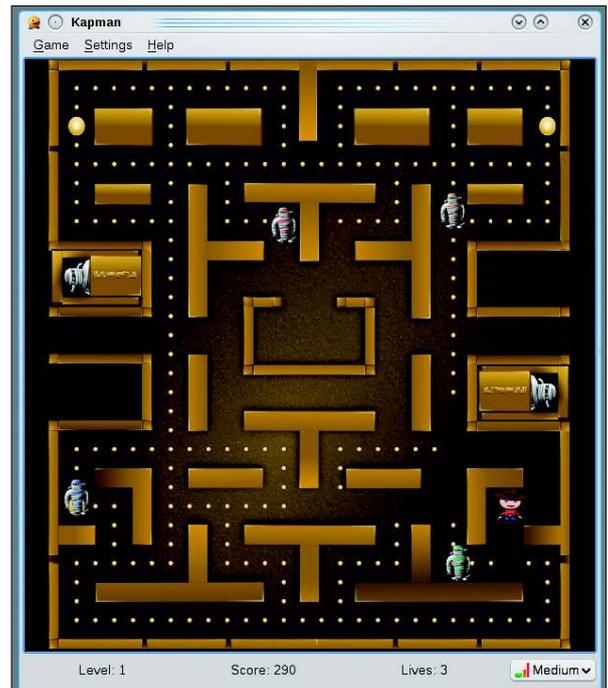


Figure 6: Egyptian mummies chase down the elusive Kapman.

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