

Ubuntu 9.10 "Karmic Koala" climbs higher

IN THE TREES

The latest Ubuntu release offers new tools, faster boot times, and many fewer of those pesky paper cuts. **BY MARCEL HILZINGER AND JOE CASAD**

Ubuntu developers who gathered in Barcelona on May 25-29 (Figure 1) brought their dreams, ideas, and lots of energy to kick off the task of creating a faster, easier Ubuntu. Early goals focused on the cloud and the desktop, along with boot time improvements and better hardware support. But that was only the beginning. After many lines of code and many late nights, the newest Ubuntu, 9.10 "Karmic Koala," has finally emerged into an eager world. As Ubuntu founder Mark Shuttleworth wrote in his blog last February, "A newborn koala spends about six months in the family before it heads off into the wild alone. Sounds about perfect for an Ubuntu release plan." Family time is over for this koala. Ubuntu 9.10 heads into the wild (your living room), the developers gather to toast another successful release, and the clock starts for the next version – the yet-unformed *Lucid Lynx*, which will appear in April 2010.

The team might be finished with this new koala, but the rest of us are just getting started. Read on for a peek at some important new features. Articles throughout this issue will take a closer look at tools and techniques for working in the Ubuntu environment.

On the Desktop

The Gnome 2.28 desktop that comes with Ubuntu 9.10 includes many new features. You will immediately notice the new theme with the dark brown window dressings and orange icons. The Empathy instant messaging client replaces Pidgin. Empathy, which is built on the Telepathy communications framework, offers geolocation, tight integration with the Gnome environment, full-screen audio and video chat, and support for a myriad of messaging services (Figure 2). The Evince PDF document viewer (Figure 3) includes enhanced AppArmor support for better access control.

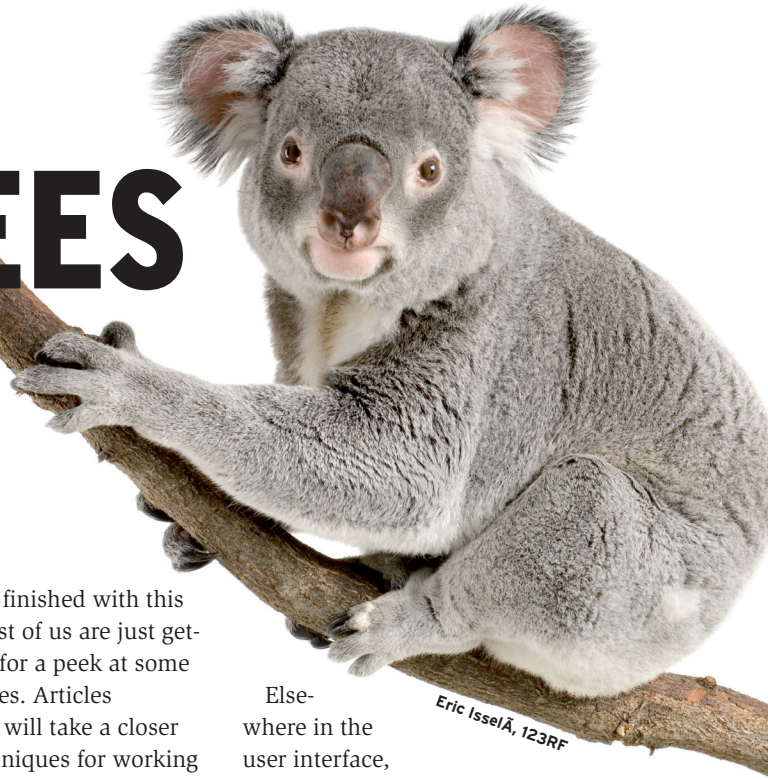
Elsewhere in the user interface, Ubuntu developers have completely reworked the network manager and volume control. If you are looking for *Master*, *PCM*, and similar sliders, you will not find them. Instead, the Pulseaudio front end simply has input and output volume controls (Figure 4). Computers with a Bluetooth adapter will benefit from the reworked Gnome Bluetooth framework, which lets users transfer files to, or receive files from, cellphones.

Software Center

One of the biggest changes with the latest release is the appearance of a new package management tool, Ubuntu Software Center (Figure 5). The Software Center is the result of an effort to simplify the business of managing applications – and to reduce the number of package tools by consolidating management functions in a single interface. A complete report on the Ubuntu Software Center appears later in this issue. Right now, the Software Center only includes free programs, but Canonical is planning to add an option for purchasing commercial software at a later date.

In the Clouds

Ubuntu 9.10 also comes with support for the Ubuntu One synchronization service (Figure 6). Ubuntu One automatically backs up files, addresses, and notes to a Canonical server and synchronizes your data. This promising service is especially useful if you run multiple Ubuntu systems at home and need to manage



Eric Issele, 123RF



Figure 1: The gathering in Barcelona last May to share ideas for the Karmic Koala release.

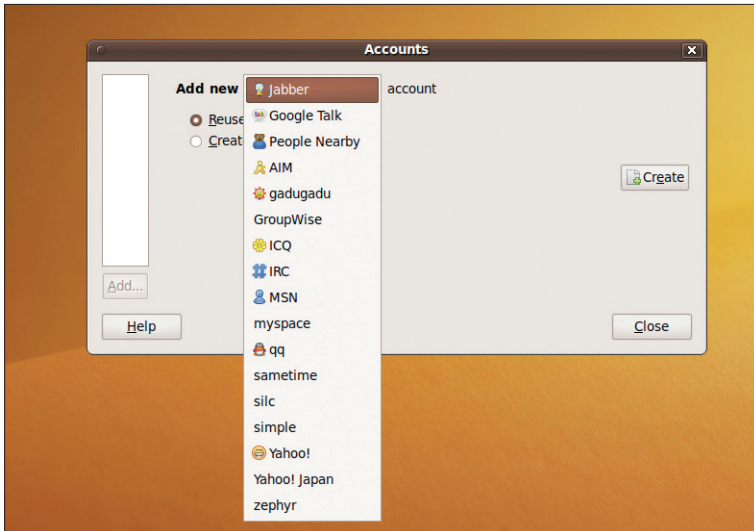


Figure 2: Empathy supports many popular chat networks.

shared files such as an address book. Canonical provides 2GB of storage free, and for an additional US\$ 10 per month, you can boost this to 50GB. One new feature in the current version is the synchronization of Tomboy notes with the address book. You'll learn more about Ubuntu One in this issue.

One of the reasons for naming this release after a koala is that koalas have an affinity for eucalyptus. Ubuntu 9.04 introduced a preview version of the Eucalyptus framework for Amazon EC2 cloud services. Now the Ubuntu 9.10 Server edition offers enhanced and extended EC2 cloud support for enterprise admins who want to set up a private cloud.

Under the Hood

Ubuntu 9.10 completes the transition to the Upstart system for managing ser-

vices. This move to the event-driven Upstart system, which replaces the classic *init* daemon, means faster boot times and a more logical structure for starting, stopping, and managing services. In the past, services generally required the `/etc/init.d/service_name start` syntax, but now you can start any service on 9.10 by calling `service service_name start`; for example:

```
service bluetooth start
```

Version 9.04 was the first to give users the freedom to select the new Ext4 filesystem for the installation; however, the version of Ext4 included with 9.04 still had occasional issues with data loss, and Ext3 was kept on as the standard. Since then, many of the problems have been

fixed, and Ext4 debuts with this release as the default. If you update, you will keep your Ext3 partitions, although there is a migration tool if you really feel like trying to migrate. Migrating a filesystem that you are already using does not typically provide any performance benefits. The Ubuntu developers suggest you keep your existing Ext3 partitions and format any new partitions as Ext4.

The Grub boot manager also emerges with a major update. Ubuntu 9.10 includes version 2 of Grub, which can start Mac OS X systems; however, Grub 2 lacks a couple of features included with previous versions, including the ability to password-protect the bootloader. An update will thus keep the old Grub.

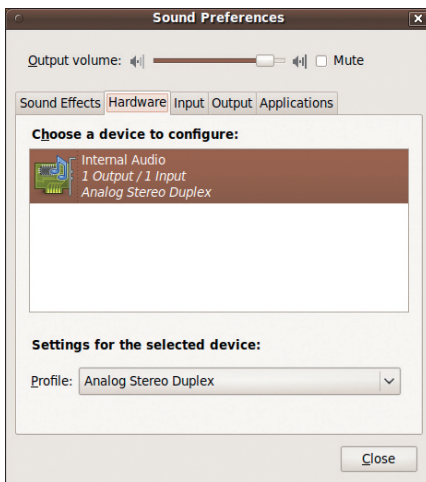


Figure 4: The Sound Preferences dialog no longer offers a mixer view, but you will find support for additional sound effects.



Figure 3: The Evince PDF document viewer comes with better security and other new features.

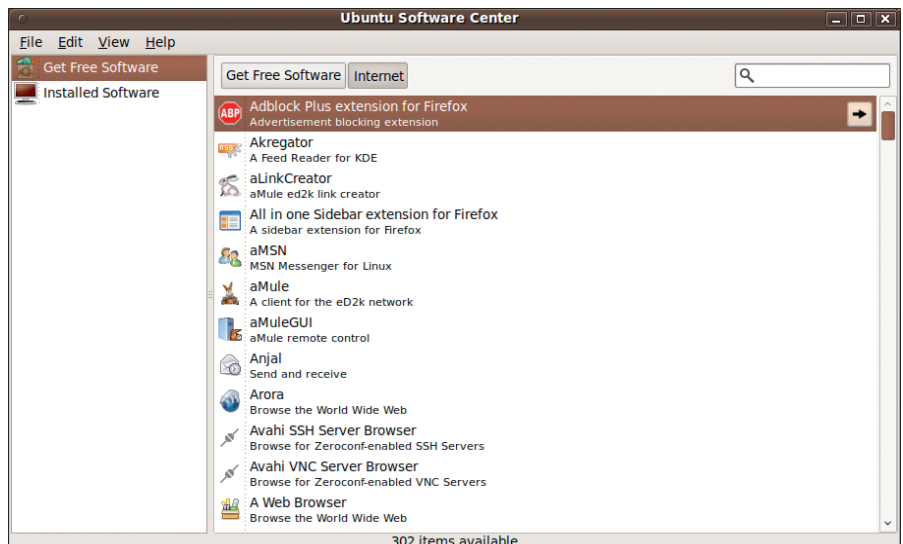


Figure 5: The Ubuntu Software Center makes it very easy to install new software.

Many users experienced problems with computers that are equipped with Intel graphics hardware on Ubuntu 9.04. Ubuntu has fixed these issues by switching from the previous EXA graphics acceleration mode to the current UXA and has also introduced Intel graphics kernel mode settings support (thanks to kernel 2.6.31). Users of computers with Intel graphics hardware can thus enjoy a flicker-free boot-up. If you selected automatic login when installing Ubuntu 9.10, you might not notice another new feature on the Ubuntu desktop: Ubuntu has replaced the GDM login manager with a completely new version.

Developers

Karmic takes a big step toward faster application development with support for the Quickly application development interface. The Quickly wiki puts it this way, "Given the richness and variety of the Linux platform, programming on Linux should be easy and fun. However, it isn't easy and fun because it is too hard to learn. It is too hard to learn because there are too many choices and too much information to wade through. Quickly strives to make programming easy and fun by bringing opinionated choices about how to write different kinds of programs ..." (<https://wiki.ubuntu.com/Quickly>).

Quickly automates routine development tasks and provides a convenient interface for collaborating, packaging the code, and distributing the app through Ubuntu's repositories.

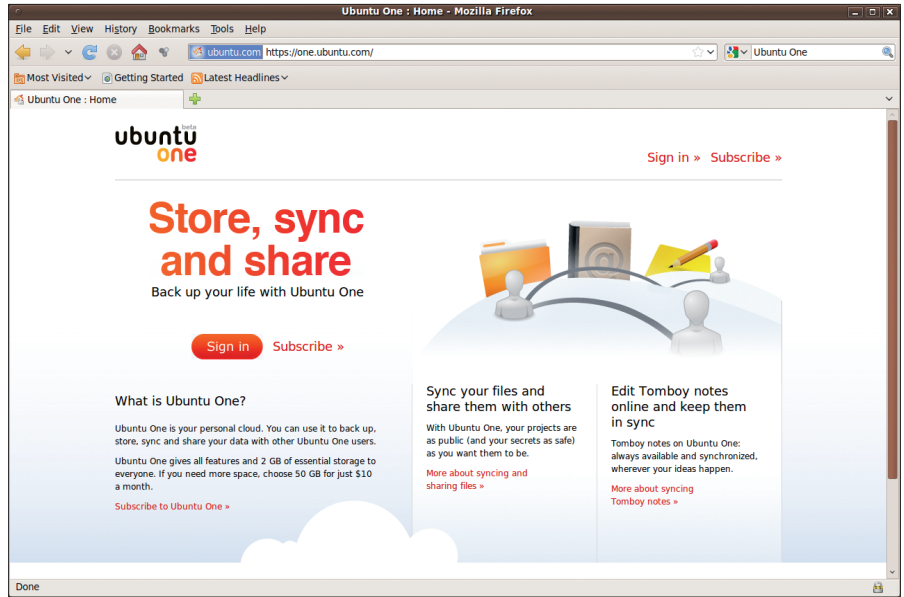


Figure 6: If you are familiar with the Dropbox synchronization service, you will feel very comfortable with Ubuntu One.

Look for Quickly in the Ubuntu 9.10 universe repository:

```
$ sudo apt-get install quickly
```

And watch for more news on the innovative Quickly toolset.

100 Paper Cuts

The Canonical Design and User Experience team recently led an effort to identify 100 bugs that are big enough to affect the user experience but too small to ever get a full measure of team attention. These small annoyances were dubbed *paper cuts*. The Ubuntu wiki defines a paper cut as "... a trivially fixable usability bug that the average user would encounter on his/her first day of using a brand new installation of Ubuntu Desktop Edition" (<https://wiki.ubuntu.com/PaperCut>).

Users were invited to nominate their favorite (or least favorite) bugs for the 100 paper cuts list. As of the time of the Karmic Koala release, 50 of the top 100 paper cuts had been fixed (Figure 7), including such irritants as the following:

- Cannot install fonts using the method described in help
- Dates are not consistently displayed according to locale
- F-Spot puts photos in the Photos folder, not the Pictures folder
- Changing workspaces via scrollwheel on the desktop is problematic, especially when using a touchpad

The success of the Paper Cuts project offers a smoother user experience with fewer trips to the help menu, and future releases will continue to improve with additional cut hunting.

And Much More

Here we highlight just a few of the recent changes. Ubuntu 9.10 comes with new versions of many important tools and a host of additional features. It also feels faster – and not just at boot time. Sister distros such as Kubuntu, Xubuntu, Mythbuntu, and Edubuntu share many of these same improvements and roll out a few of their own. ■

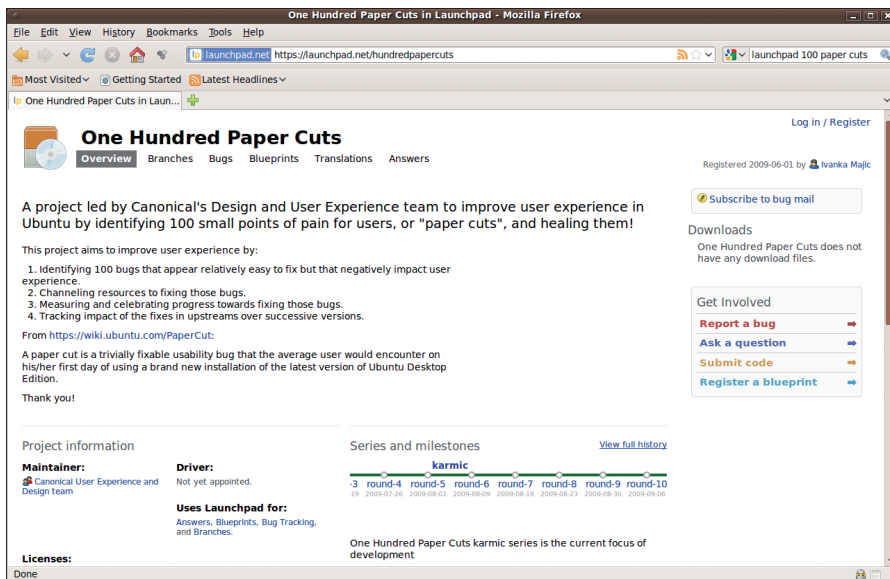


Figure 7: The Paper Cut team tracks their progress on Launchpad.