

Ulteo declares a desktop revolution

LIVE INNOVATION

The top-secret Ulteo project aims for the goal of the world's easiest Linux. **BY MARTIN LOSCHWITZ**

Several Linux systems have debuted over the last few years with the promise of making Linux easier for the ordinary user. The latest of these desktop debutantes is a mysterious Linux known as Ulteo.

Ulteo is the brainchild of Mandrake Linux founder Gaël Duval, who was recently ousted from the corporation that now calls itself Mandriva. According to Duval, Ulteo is not just user friendly, but actually represents a whole new paradigm that will change the way we think about Linux.

The Plan

The Ulteo project [1] evolved around the philosophy that users spend too much time on tasks such as upgrades, system administration, and application management. The solution, according to Duval, is to think about the operating system and applications as a single system. Ulteo uses the term *application system* to refer to the operating system with its constellation of core applications.

The goal of the Ulteo project is to produce a system that will:

- provide the most up-to-date stable features and self-upgrade automatically;
- require no, or very little, administration by the user; and
- provide readers with access to “potentially every application that exists.”

At this stage, it isn't really clear whether Ulteo will live up to this bold new vision. According to the Ulteo website, the plan for the current alpha release is to focus on the first of these goals.

After the ini-

stallation, Ulteo will automatically check for updates and then install all new software through an “incremental upgrade mechanism.”

The next alpha release will apparently address the second goal by providing additional tools for easy administration, but later plans for Ulteo are shrouded in mystery. According to the website, “with each new release, we hope to explain a new part of the Ulteo vision in greater detail.”

We looked at the recent

Ulteo Sirius Alpha1 release to see if this revolution is ready for the streets.

Introducing Ulteo

The system is based on kernel 2.6.15 and uses X.org 7.0. The desktop is KDE 3.5.2, and the distribution includes Firefox and Thunderbird version 1.5.0.8. The distribution's first original contribution is the Ulteo General Daemon, a service that automatically locates updates for installed programs. Ulteo is only available for x86 systems as of this writing, although Duval plans to release variants for x86-64 in future. In addition to KDE, variants with the Enlightenment and Gnome desktops are planned.

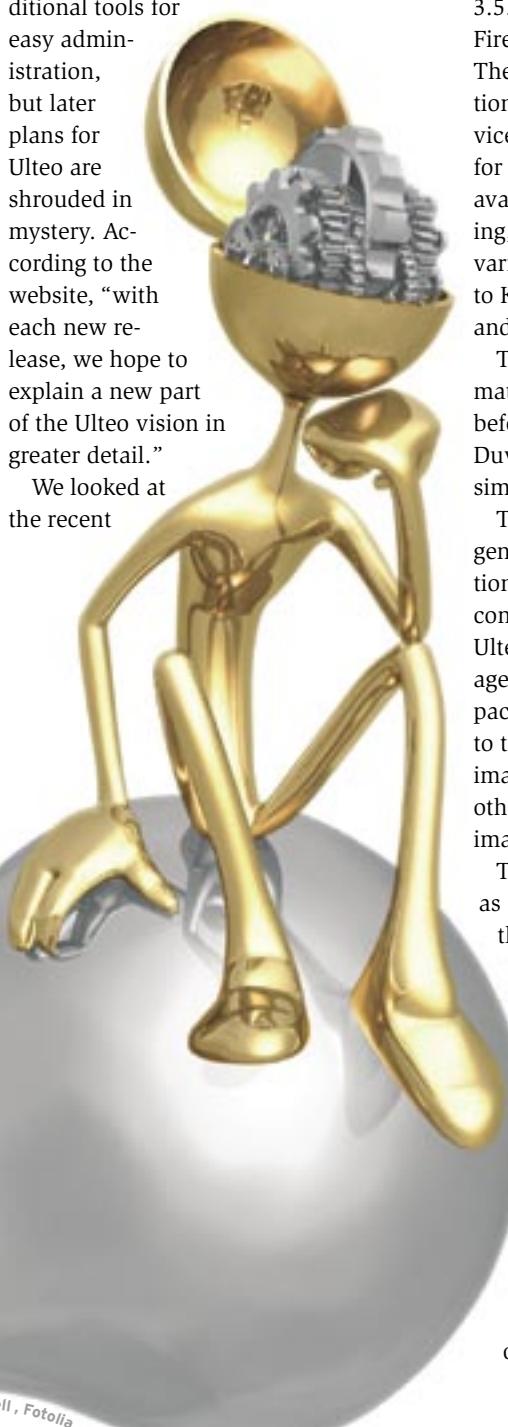
The technology behind Ulteo was a matter of wild speculation until shortly before the Alpha1 Ulteo release – with Duval himself firing many of the rumors simply by not revealing anything.

The Ulteo project envisions a fairly generous helping of basic tools in addition to the basic operating system. In contrast to other current distributions, Ulteo does not use a package-style management setup for software – in fact, the packaging system is completely invisible to the user. Instead, Ulteo loads an image file on booting, like Knoppix and other CD distributions, and mounts the image to provide a basic system.

The project developers refer to Ulteo as a “live HD” system. In other words, they think of Ulteo as something like a live CD that runs on the hard drive.

According to the Alpha1 release notes, the entire application system is mounted as a loop from a read-only SquashFS image. “The read-only layers and the read-write system layer are put together using UnionFS” [2]. The UGD connects to Ulteo servers on the Internet and integrates system upgrades as they become available.

The only data stored dynamically on disk are user data. The idea is that,



Scott Maxwell, Fotolia

if every single user has the exact same application system image, replacing the image with a newer version is much simpler. The image approach will also allow centralized distribution of all but the most hardware-specific aspects of the configuration.

In light of these momentous announcements, the demand for the Alpha1 version of Ultee was so enormous that mirror servers were almost unreachable for the first few days after the release. Ultee has now implemented a more powerful mirroring system to make sure that anyone interested in the distribution will have access [3].

You will not see much in the line of innovations after inserting the CD (Figure 1). Ultee is based on Ubuntu and thus boots an Ubuntu-like live system from the CD. Ultee wants to give users the ability to test the system before installing. To launch the install, you just click the *Installation* icon on the desktop, which takes you to an installer that closely resembles the Ubuntu installer.

The installation is easy: the routine asks you to select a language, your preferred keyboard layout, and login name. The Ubuntu partitioner handles hard disk partitioning, and the installer continues with installation.

Ultee drops about 1.6GB of data onto your hard disk and does not require any further configuration. After rebooting, you can log onto the new system. The desktop is modeled on Windows in many respects: the KDE menu button is labeled "Start," and a quick-start panel in typical Windows style appears to the right of the button. The panel gives you access to programs such as Kopete, Thunderbird, or Firefox.

The K menu appears to have a complete set of Kubuntu helpers for administration tasks that cannot be handled

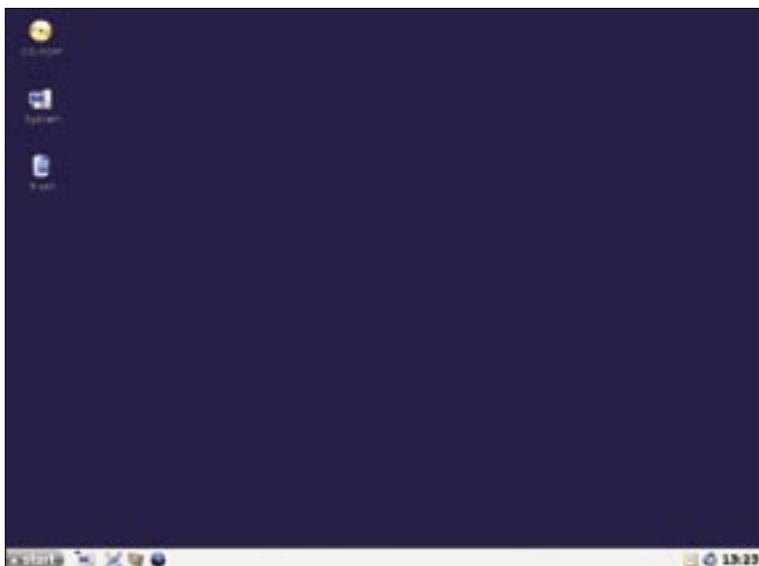


Figure 1: The Ultee desktop looks fairly tidy on first inspection.

centrally, such as setting up local wireless networks.

Traces

Although the complete Ultee system is still in development, you'll find traces of Gaël Duval's vision if you look around the system. For instance, the */boot/yuch* folder contains a file called *filesystem.squashfs-2.6.15-27-268* with a compressed version of the complete root filesystem. Neither the system itself nor the Ultee website reveal details of how the trick works, and this made it difficult to take a peek behind the drapes of the Ultee distribution.

Because a *rofs* folder with another copy of the complete root directory resides below */initrd*, it is probable that what used to be known as the SquashFS file is mounted here. However, the folder is missing from the listing of the mounted filesystem tree (Figure 2).

As of now, the Ultee project views the current release as a kind of proof of concept. I found little in this release to dis-

tinguish Ultee from Ubuntu's Dapper Drake. A quick look at the kernel messages via *dmesg* reveals that Ultee Sirius Alpha1 actually uses the standard Ubuntu kernel, with an extension for SquashFS. The extension caused kernel panic about once a minute in our lab, which probably explains why some KDE tools crashed. This kind of error is not what Ubuntu users would expect.

Conclusions

Perhaps it is understandable, in the light of his

previous experience with Mandrake, that Gaël Duval is keeping most of Ultee under wraps. When Bruce Byfield asked him what he had learned from his experiences with Mandrake, Duval answered "I'll try to keep control as long as possible, or as long as needed, and won't trust any more people who want to tell me what I should do and how I should do it" [2].

The downside of the secrecy is that Ultee will not be able to leverage various synergy effects so typical of FOSS, and that puts the ball firmly in Duval and his small developer team's court.

This also partly explains the slightly reticent conclusion to this Alpha1 review: right now, the system is no more than yet another KDE-based distribution that promises special update mechanisms. Because no updates were available when this article went to press, I couldn't even test the technology to see if it really works.

The instability I mentioned earlier rules Ultee out for productive use. If the subsequent alpha, beta, and final releases all take as long to materialize as the current Alpha1, Duval's project might not make it off the ground. ■

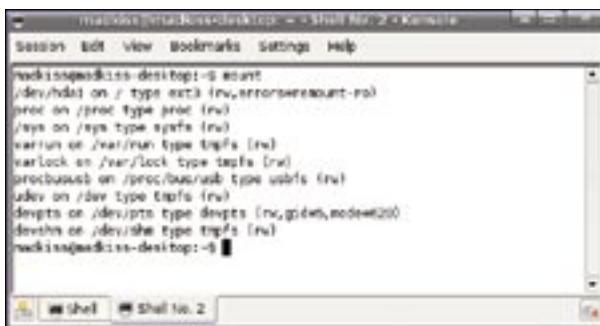


Figure 2: The mounted SquashFS image does not appear in the mount table.

INFO

[1] Ultee homepage:
<http://www.ultee.com>

[2] Interview with Gaël Duval:
<http://www.linux.com/article.pl?sid=06/12/08/2240242>

[3] Ultee download: <http://www.ultee.com/main/download.php>