

## Kanutix: Out-Knoppixing Knoppix?

# Duel of the Distros

There have been many recent reports of Kanotix out-knoppixing Knoppix. Users say that Kanotix has better hardware detection and a simpler hard disk install. In this article, a leading Knoppix contributor gives his view on what Kanotix really does offer. **BY FABIAN FRANZ**



www.photocase.de

The Kanotix [1] live distribution is based on the well-known Knoppix distro and named after Kanotix' creator, Jörg "Kano" Schirottke. Jörg contributed a number of patches and programs to the Knoppix distro but was unhappy with the way development was progressing. It took too long for patches to make their way into the distribution, and according to Jörg, the team was not producing enough releases. But what bugged Jörg more than anything else was the fact that Knoppix is quite happy to run on a 486er, but it is not optimized for more modern hardware. Kanotix needs at least a 586 machine.

To keep a long story short, Kano Schirottke forked the project and launched his own distribution. His website says:

"Thanks for Knoppix. I like it a lot, but I had to improve it :)". Kano is well-known in the Knoppix Community and on the Knoppix Forum [2]. He is also the most active participant, having contributed about 5,000 postings, and he has answered nearly every question thrown at him.

In contrast to Knoppix, Kanotix is based on the Debian Unstable/Sid branch. In other words, you could refer

to Kanotix as "Knoppix Unstable." Many of the drivers and programs tested in Kanotix find their way into the original Knoppix distro later. The current version is Kanotix Bughunter 7A, and the current developer version is Bughunter 8. To compare features, I used Knoppix 3.4 and Knoppix 3.6 "aKademy" edition.

## Well-Dressed

When they boot into Kanotix, users are treated to a GUI menu (see Figure 1) where they can select from several cheat code combinations. (In the world of Knoppix, boot parameters are referred to as cheat codes.) You can use cheat codes to set some parameters at boot time. By default, Kanotix enables ACPI and the ALSA soundsystem, in contrast to Knoppix. Instead of supplying parameters such as *lang=fr*, or whatever, users can simply press function keys [F2] through [F4] for the option they need. [F1] gives users help and guidelines on selecting cheat codes.

Kanutix detected most of the hardware in my HP Compaq NX5000 laptop without me needing to change anything; Table 1 shows a comparison with Knop-



Figure 1: In contrast to Knoppix, Kanotix has a GUI-based boot menu where users can select cheat codes.

Table 1: Detected Hardware (HP Compaq NX5000)

Hardware component	Kanotix BH 7	Kanotix BH 8	Knoppix 3.4	Knoppix 3.6
Network card	Yes	Yes	No	Yes
Centrino Wireless card + download Windows driver)	No	Yes (ndiswrapper)	No	Yes (ndiswrapper)
i810 Graphics card (GLX and XV)	Yes	Yes	Yes	Yes
i810 Sound card	Yes	Yes	Yes	Yes
PCMCIA, USB, Firewire	Yes	Yes	Yes	Yes
ACPI	Yes	Yes	Yes	Yes

pix. Although the mouse was detected as a “PC Speaker” (maybe they meant PC squeaker), it still worked. Kanotix detected a whole bunch of devices that Knoppix does not support. For example, Kanotix configured a AVM Fritz! Card DSL with no trouble at all. And it set up a Broadcom NIC that Knoppix wanted nothing to do with.

When Kanotix launches the GUI desktop, users get to see the Kanotix mascot, a fish. The Fish menu is located right next to the KDE logo, in the bottom left corner of the screen. From here, users can launch Kanotix programs, launch services, and set up hardware. One of Kanotix’s outstanding features is the fact that it supports so called Win modems, which otherwise require proprietary drivers.

## Package Selections

The menu also has tools for ISDN, Apache, and even the Guarddog firewall. Just like Knoppix, Kanotix uses “Captive” to mount NTFS partitions, Partition Image, and QTParted to create and save partitions. On the downside, Kanotix does not integrate the Debian menu but adds a separate menu.

Thanks to Debian unstable, Kanotix has the latest software. Bughunter 8 has KDE 3.3, whereas Knoppix 3.6 is still at KDE 3.2. Kanotix also integrates developer tools like Quanta and Kommander, although you will not find KDevelop in the Kanotix package. Another interesting feature is the QEmu emulation software. QEmu emulates a PC, in a vein similar to VMWare, and allows users to launch complete operating systems under Linux.

Kanotix was one of the first distributions to provide full support for the newly-released Reiser 4 filesystem. And if you are missing an application, the live installation feature enables you to install that application while the system is running. For example, users can download Nvidia drivers off the Internet via the fish menu and install the drivers in a unified process.

The Klik software warehouse makes it really easy to integrate new software with your Kanotix system; just select the Klik button with your browser. Kanotix uses Ndiswrapper, just like Knoppix 3.6, but the Kanotix Ndiswrapper comes complete with configurations for a few Windows drivers. *modprobe ndiswrapper*

is typically all it takes to get these devices running.

Kanotix claims to have the latest software. If a program from Debian unstable becomes too old, the author just compiles a package from the latest sources, as was the case with the SIM instant messaging tool.

## Installation

If you decide to make Kanotix permanent on your hard disk, simply type *sudo kanotix-installer* in a terminal window. You may be familiar with the installation tool from Knoppix, but the standard filesystem is ReiserFS. Select *Create configuration*, then choose a free partition, type your username and password, and select *Start Installation*. After you complete the install, you have access to a number of scripts that automatically configure a number of programs. Table 2 shows you some of these configuration scripts, and there is a complete list of scripts at [3].

But be careful: the installed system may be newer than Knoppix, but Debian unstable packages can break and take your system down. If you are experiencing difficulty with Kanotix and need some advice on what to do, check out [4] for an extremely active community that is only too happy to help. Don’t be surprised if you bump into Kano himself. ■

Table 2: Useful Post-Install Scripts

<i>install-nvidia-VERSION-debian.sh</i>	Installs version <i>VERSION</i> of NVidia graphics card driver.
<i>install-nvidia-debian.sh</i>	Installs compatible version of Nvidia graphics card driver.
<i>install-radeon-VERSION-debian.sh</i>	Installs version <i>VERSION</i> of Radeon graphics card driver, Radeon 8500 or later.
<i>install-radeon-debian.sh</i>	Installs compatible version <i>VERSION</i> of Radeon graphics card driver, Radeon 8500 or later.
<i>fix-fonts.sh</i>	Regenerates fonts. Fonts below <i>/usr/share/fonts/ttf</i> are added.
<i>fix-5b-mouse.sh</i>	Enables side keys on 7 button mouse, and sets their function to forward/backward.
<i>fix-time.sh</i>	In case of time problems, this script resets the timezone.
<i>fix-ssh.sh</i>	Creates unique SSH keys.
<i>apache-start.bash</i>	Launches the Apache web server.
<i>dvb-nexus load</i>	Enables Nexus DVB card, providing DVB support in Xine: <i>xine dvb://</i>
<i>dvb-pctvsat load</i>	Enables PCTV Sat DVB card, providing DVB support in Xine: <i>xine dvb://</i>
<i>kanotix-irc.sh</i>	Launches a text mode chat client. This is particularly useful if the GUI does not launch.
<i>smbconfig.sh</i>	Creates a basic Samba configuration and launches the Samba server. Configuration can be finalized using the Control Center.

## INFO

- [1] Kanotix:  
<http://www.kanotix.com/>
- [2] Knoppix Forum (inactive at time of writing):  
<http://www.linuxtag.org/forum/>
- [3] Kanotix scripts:  
<http://www.kanotix.com/files/>
- [4] Kanotix Forum:  
<http://kanotix.mipooh.net/>

## THE AUTHOR

Fabian Franz is studying Computer Science at the University of Karlsruhe, Germany. He has been actively involved in development at the Knoppix project since 2003. Fabian contributed Knoppix hard disk installation routines, and has done research work on various aspects of Live CD technology. He presented a prototype of Knoppix for the Macintosh at the last Linuxtag, and developed a live installer that can install programs and drivers into a running Knoppix CD boot version.