

**TUX EXPLAINS** Pimping the Fox: Add a little bling-bling to Firefox



A Call for Open-Source  
Democracy



How Google Intersects  
with Linux World Domination

# TUX

the first and only magazine for the new LINUX USER

**Gadget Guy**

Returns to the Consumer Electronic Show

**Nokia 770 Internet Tablet**

A Linux PDA for the rest of us

ISSUE 11 • MARCH 2006

## TAILORING YOUR DESKTOP

**TUX** leads you through customizing GNOME and KDE. Discover the joys of matching the perfect background, icons, colors and splash screens on your favorite desktop.

### THIS MONTH'S MANGO PARFAIT:

- Help with a non-Linux compatible network adapter? No, a good scolding!
- Get Adept working behind a firewall
- Use partimage to backup partitions
- Recover a lost KDE taskbar



LET **TUX** SHOW YOU A  
GLIMPSE OF THE  
FUTURE OF DESKTOP  
CUSTOMIZATION

LEARN HOW  
OPENOFFICE.ORG AND  
THE NEW MAIL MERGE  
WIZARD OPEN UP NEW  
OFFICE PRODUCTIVITY

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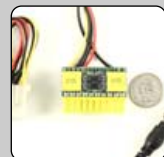
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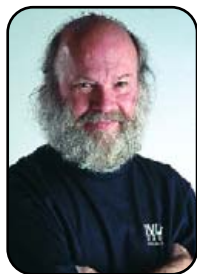
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FROM THE PUBLISHER

## Without Open Source, What Are Our Choices from Computerized Voting Systems?

**The results of an ongoing investigation cast doubts on the impartiality of some computerized election results.**

PHIL HUGHES

If you don't know how to fix a car, you trust your mechanic. If you don't know how to fix your television, you trust the service technician. But, you still have choices. That is, if you decide your mechanic or technician is not on the level, you can go get a second opinion. This isn't ideal, but it is better than having no choices.

We say Linux offers choices. For the most part, in *TUX* we have been talking about choices such as which Web browser or word processor to use. And, yes, Linux tends to offer more choices than other operating system alternatives. However, I want to delve a bit deeper into the idea of choice this month.

Besides having the choice, for example, of AbiWord, OpenOffice.org or KWord for a word processor, you also have the option of making a change to any of these programs. You have (or have free access to) the source code of these programs, so you can change how they work.

Now, I doubt there are many *TUX* readers who

are planning to make such modifications, but having this access goes way beyond what you, the individual desktop user, may decide you want to do. It means you have a basic freedom that isn't available with many other word-processor products.

Returning to the car analogy, not having access to the source code would be a lot like being in a situation where only the car manufacturer could open the hood of your car. Although you might not want to work on your car yourself, this situation would limit your ability to select the mechanic you wanted—your only option would be to go back to the manufacturer.

Why is this so important? Let me offer an example of an ongoing investigation in a rather important industry—let's call it the industry of democracy.

In the US, as well as in other countries, computerized vote tabulating systems are replacing paper ballots. The "marketing hype" is that this method is better because computers are faster than dealing with physical documents and more

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## SO, HERE'S THE PROBLEM. COMPUTERS MAY NOT LIE, BUT THEY ALSO DO NOT THINK OR HAVE ETHICS.

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accurate, as “computers don’t lie”.

So, here’s the problem. Computers may not lie, but they also do not think or have ethics. They simply do what you ask them to do. In the case of something as simple as a two-way cable TV system, this may mean the manufacturer of the cable box can decide the box could report what programs you watch. Or, your car might be given the ability to keep track of the fastest speed you have driven.

Each of these items can be justified by the manufacturer, but two pieces are missing here:

- Did the manufacturer tell you this reporting was being done?
- Do you have a choice?

In most cases like this, the public seems to find out after the fact, and then is told it is a good thing. Most people go along, and all is well—for some value of well. But, what if a

software “feature” was being inserted into a program that reported the information incorrectly?

In the case of the cable box, statistics could be incorrect and give unfair marketing advantages to some programs. An error in a car computer that incorrectly indicated you had driven at excessive speeds could result in legal consequences, if for example, you had an accident.

The check here would be to have the source code for the software in these computerized systems available for review. This means you, the representative of a television network or your lawyer could analyze the program to make sure it was reporting the information accurately.

Back to democracy. The details of an ongoing investigation related to computerized voting systems can be found at [www.blackboxvoting.org](http://www.blackboxvoting.org).

There have been many allegations that various computerized voting machines were not counting election results accurately. At this point, the inves-

tigations are well beyond allegations. Some demonstrations have shown that it is very easy to cause such machines to report election results incorrectly.

The biggest issue here goes back to the fact that the software for these machines is not open source. That is, the programming cannot be reviewed by independent organizations to check its validity.

Now, is this intentional fraud or merely poor design? From our point of view, that of Open Source advocates, it doesn’t matter. The point is that without this external review, we simply aren’t sure it works right. And, as with our cars, if this is something important in our life, we should have the right to see what is going on.

For you, the desktop Linux user, you need to ignore the hype and realize open source is better. It is more likely that open-source programs do what you ask, are more secure and, generally, offer you, the consumer, more control. And, if you are asked to vote pro- or anti-open source, make sure your voting system doesn’t have a built-in bias.■

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Phil Hughes is Group Publisher for SSC Media Corp.



FROM THE EDITOR IN CHIEF

## It's All Fun and Games Until Someone Gets Poked in the Eye

**By announcing Google Pack, is Google, Inc., following a Windows-centric strategy, despite signs that globalization will carry Linux into every under-developed corner of the world?**

KEVIN SHOCKEY

Earlier this year at the International Consumer Electronics Show, Google, Inc., announced the availability of the beta of Google Pack. It is described as a free collection of safe, useful software from Google and other companies that improves user experience on-line and on the desktop. Soon after the announcement, John Batelle, author of the Searchbrog and the book *The Search*, commented, "...the company [Google] has made no secret of its intention to poke Microsoft in the eye from time to time." As it happens quite frequently in the blogosphere, this phrase stuck and the Google Pack was quickly branded as a poke in the eye of Microsoft. However, I'm not really sure who is getting poked in the eye.

Of the biggest Internet companies, Google is surely the leader when it comes to promoting Linux and open source.

From standing out as a clear innovator by leveraging the power and reduced total cost of ownership from running Linux in its massive server farm to sponsoring the Summer of Code, there is no mistaking that Google is a friend of Linux and open source. Tim O'Reilly, founder and CEO of O'Reilly Media, is fond of sharing this observation. Many people, when you ask them, swear they never have used Linux or open source. But if you ask them if they have used Google, they will say, "of course". At which point you can tell them that if they have used Google, then they have used Linux and open source.

### NO END-USER LINUX APPLICATIONS

The problem is that Google Pack is not available for Linux. Although Google Pack includes many third-party applications, some of which might be available for

Linux, the bulk of the software available was purchased or developed by Google. Of the five applications Google Talk, Picasa, Google Earth, Google Desktop and Google Pack Screensaver, none are available for Linux. Many industry experts position Google against Microsoft in terms of competitors. So, to me, when you make announcements for products that require the foundation of your competitor's profitability, you are not poking them in the eye. You are poking yourself in the eye! Conceding the operating system level to Microsoft is one thing, but actively making products that require your competitor's products is foolish and shortsighted.

If Google were building a Linux version of these applications, that would be the kind of news I would like to hear. I'm seriously hoping that these developments are in progress, and that Google is remaining quiet until the right time. Recently, a rumor surfaced that Google was working on an Ubuntu-based distribution. However, Google resolutely denied that rumor. One of Google's key strategies is to corner the market on the brightest scientists and engineers. So if Google is moderately successful with this strategy, the reason it has not released any Linux software applications can't be due to a lack of talented resources. Although I might be

widely mistaken, the lack of Linux software available from Google is the result of faulty strategy and lacks a critical understanding of the software marketplace.

### A NEW GLOBAL MARKET?

Anyone familiar with Thomas Friedman's work will readily agree that a globalized marketplace has been emerging that will bring incredible change. When we consider that the majority of the people in the world have never seen a computer, surfed the Internet, used Microsoft Windows or searched Google, it leads me to believe that it is paramount to ensure that the first computer they do see runs Linux. Due to the stark differences between proprietary and open-source software, many of the countries where all these potential customers inhabit will demand Linux. But what about the others? Is Google also willing to concede all of those potential customers to its competitors?

If there is any doubt where the market is headed, consider an announcement made by Mandriva in January 2006. Mandriva, publisher of the popular Mandriva Linux operating system, has partnered with HP to distribute HP computers preloaded with Mandriva Linux 2006 to 37 countries in Latin America. The companies will work together on sales, support and marketing in all Latin American territories, including Brazil, Argentina and Mexico. The first of these preloaded machines has

already begun shipping.

### CORE OR CONTEXT

As Google rolled out some these applications, many wondered what does this product have to do with indexing the Web and serving context-sensitive advertisements? Geoffery Moore, in his book *Living on the Faultline*, outlined the concept of core versus context. His premise was that successful companies focus their efforts on service and products that differentiate their offerings in the eyes of the customer; everything else is context. So what is Google Pack? Is it core or context? One opinion shared within the industry is that anything Google might do that helps end users manage and find information is core. This popular opinion also concludes that if Google can become involved with the management and indexing of information, all paths lead back to them—that is, it will find a way to put a context-sensitive ad beside that information.

This strategy is confirmed with Google Talk. When it was originally released as a standalone client, there was no way to index or include advertising. Recently, however, Google announced Gmail Chat. According to Google, it is the first integration of e-mail and instant messaging in the browser that offers users a seamless communications experience. One of the features of Gmail Chat is that the logs from instant messaging sessions will now appear within the Gmail browser interface. Of

course, this now means that Google can place ads beside those log sessions.

So even if it might not be clear now, it certainly seems, that with these products all paths do lead to Google. My concern is that in the process of forging all of these new pathways, Google doesn't accidentally create them in ways that force us to pay a toll. If these applications (that Google wants everyone to get hooked on) are not available on Linux, Google will be doing more than poking themselves in the eye when we choose not to use its paths. When everyone around the world finally does get a computer and joins us on the Internet, Google might discover that it built pathways for today, when it could have been building expressways for tomorrow. ■

---

Kevin Shockey is Editor in Chief of *TUX*.

### EDITOR'S NOTE

**Before going to press, I learned that Google and CodeWeavers are working on a version of Picasa. Although the result will not be a Linux port of the application, but rather the combination of Windows Picasa code and Wine technology to run Windows Picasa on Linux. Nonetheless, it is still a move in the right direction.**

# LETTERS

## Editor's Note

*With more than 50 responses, the verdict is clear. We need to put together a searchable index of TUX issues. I've spoken to the Publisher, and we agree that an index is a great idea. The big question now becomes, when and how. Well, we have quite a few exciting changes in progress and a busy schedule, so it's hard to estimate when something will be available. In the meantime, if you have Beagle, you can build your own searchable index of sorts. Put all of the issues together in one directory, and use Beagle to search that directory. I tested this configuration, and it worked for me while answering these letters.*

## PCLinuxOS Helps Solve PSP-Compatibility Issue

I am writing in response to an entry in the Letters section of your magazine ["An Issue with Sony and PSP Compatibility", February 2006].

I use a Mandrake-based distribution called PCLinuxOS with my Sony PSP and it works fine. The latest version is PCLinuxOS .92. Not only does this distro work very well with my Sony PSP, but it autodetects and remounts the Sony PSP every time after removing the USB connection and plugging it back in again.

PCLinuxOS will work fine with the Sony PSP, and the PSP will recognize the files as being present. However, with that being said, you don't want to be

quick to switch out of USB mode on your PSP after transferring files from the computer, because even though it may look like it has completed on the PC side, the PSP may still be processing the transfer. You want to make sure the progress indicator on the PSP (which bounces from left to right to show activity) has disappeared. After that, you are good to go!

—  
Joseph M.

## Praise and Frustration from India

First, some words of congratulations are due. *TUX* is the best Linux magazine I have ever seen. I am somewhere between a geek and an average user. I found the articles unbelievably interesting for me. I want to share some thoughts with you. Six or seven months ago, I seriously started using Linux, and my impression of it has been better since then.

There are some things that I am still uncomfortable with, but I will talk about them later. Currently, I've been trying to convince some Windows users about the wisdom of using Linux. Some people were interested, but all of them had the impression that using Linux is difficult, and to the best of my ability, I was not able to convince them that it is not true. I think that is because they are used to Windows, and they feel at home with Windows. As Linux is different, they feel uncomfortable, and not many have the willingness to learn anew. There is very little we can do about it.

What I see all around is that most Linux users are "converted" from Windows. (This is in spite of the above fact—I am one myself.) So, I think it is very important that we should have a lot of young users who will see and learn Linux first. In most of the places where people learn to use computers—like in their institute or some computer-training school (this is especially true here in India), we should have more of Linux to offer them. Can you share your views about this?

Now about the flip side of Linux—I find administrating a Linux system a frustrating business. I am doing my research and am generally busy. Often I don't have much time or patience to go through articles on how to compile programs. The way Windows installs a new application, by assigning a new folder in the filesystem for the program and keeping all the components of the program in that folder, is in some sense a good idea. You don't get conflicts that way. I'm looking forward to some thoughts on this in your editorial column. By the way, thanks for the articles on klik and autopackage.

One more question: can you tell me about any graphical mathematical program like origin that does data plotting on Linux? I tried using MATLAB and OpenOffice.org Calc, but they are not up to the mark.

—  
N Arju

*Thank you very much. We think we're the best too, but it's still nice to hear from our readers. We share your frustration, and one of our primary goals is to dispel the myth that Linux is difficult. I personally share your frustration with installing applications in Linux, so much so that it will be the subject of my next column. About MATLAB, I worked with a student whose mission was to convince every engineer that would listen to him that Python along with various libraries was not only as good as MATLAB, but that it was better, because it saved users from the large licensing fees associated with MATLAB. From our conversations, there should be a wealth of information available on the Internet comparing the two.—Ed.*

### Feeling the Pain from Linux Application Installation

Personally, I find the biggest pain at the moment is loading/updating software. The issue of tarballs is somewhat of a Black Art, and, dare I say it, one of the areas where M\$ does beat Linux hands down. OSDL really does need to put this one near the top of the list. It's all very well phaffing around with drivers, but if you can't load the software in the first place, the drivers are not worth a can of beans.

For example, I want to look at a Web site that requires Firefox to have a Shockwave plugin installed. Frankly, I have given up and use a Windows XP machine to do it, because it is such a laborious task

and I am not sure if I know what I am doing. I am not going to risk upsetting my e-mail/Web surfing, as I already managed somehow to turn off JavaScript under Xandros, and despite the best efforts of a number of "gurus", have not managed to undo the damage. I can log on as a different user on the same machine and have no problems. If I need to do it for Firefox on a Windows machine, it's just a couple of clicks and it's installed.

Things I find hard (different) with Linux:

- Filesystem—so I'm a slow learner.
- Locating my various drives/files.
- Installing/updating software: kernel, GUI, Firefox.
- Getting some "gurus" to talk to me in a language I can understand. I don't think I am a total Numpty, as I did my time with the TRS80, DOS and made my own PC from parts back in the 8088 days! I have even used punch cards for programming, which I guess dates me somewhat!
- Downloading and burning CDs of distros.

Oh, by the way, I saw IceWM running as a desktop, and I think it is something you could do an article on. Keep up the good work.

—  
GerryAttrick

*Another one of our goals is to provide advice in a language that is accessible to everyone interested. As mentioned above, stay tuned until next issue for more on these subjects.—Ed.*

### Difficulty Getting Multiple Distributions Installed

I am new to Linux and am trying different distros to see what fits best for me, and I can't seem to be able to boot different installed distros. I can boot only the last installed one. In the November 2005 issue, Nicholas Petreley explained how to do it. I have tried to follow his instructions on how to set up multiple boot options, but I can't quite get it to work properly. At the moment I have:

- hda1: primary partition 78MB for booting.
- hda2: swap partition.
- hda3: primary partition for Linux /root.
- hda4: primary partition for /home.
- hdb1: second Linux OS.
- hdb5: swap.

I can see the menu.lst for each Linux OS and can run each OS after installation. I also can see that the menu.lst in hda1 is the same as in hda3. I have added the correct lines



from menu.lst in hdb1 to hda1. But, I cannot seem to boot from hda1. When I try to do:

```
grub> root (hd0,0)
```

I get:

```
Filesystem type unknown, partition type 0x6.
```

If I ignore that and do:

```
grub> setup (hd0)
```

I get:

```
Error 17: Cannot mount selected partition.
```

I am stuck and don't know what to try. Any suggestions would be appreciated.

—  
**Chris Andreae**

### iPod Support from within Linux

I have been reading your magazine from issue 1, and I really like it. Congrats on making such a wonderful magazine. It's a great magazine made possible by a great team.

I have an iPod shuffle (1GB) and would like to know how to upload music onto it from my Mandrake 2005 LE (10.2) desktop. Right now, I use iTunes on my sister's Windows machine to

load the songs onto my iPod. Is there something similar to iTunes that runs on Linux? Your input would be appreciated.

—  
**Kaizer**

*Check out the June 2005 issue for help with this problem.—Ed.*

### Squeezebox Offers the Sonos Digital Music System a Run for Its Money

I enjoyed the article on Sonos [February 2006]. I've seen advertisements before and was a little curious about it; however, Linux users have more than one choice for this kind of music gadget.

Slim Devices produces the Squeezebox, a small device that connects to your home music system and receives streamed music from your home network. The server software is open source and runs on Linux, Mac and Windows. You can have multiple Squeezeboxen streaming different music from the same server, and one remote would suffice for each unit, but you get the remote included with each Squeezebox. You also can connect to the server through a Web interface.

The Squeezebox handles MP3, Ogg Vorbis and some lossless music formats. Plus, you also can stream Internet radio through your Squeezebox to your home music system with just a few

thumb twitches on the remote. You can get your Squeezebox with an Ethernet port or an Ethernet port and wireless antenna. You also can use the Squeezebox to connect other devices to your home network. For your audio connection, you can use either an optical or analog output.

There are a few things the Squeezebox can't do that the Sonos can do, but then, the Squeezebox is *much* less expensive. But, even better, you can download and install the server software (Slimserver) for free. It includes a program called Softsqueeze that you can use to put a virtual Squeezebox on your computer desktop, including a "remote" with buttons you can click with your mouse. It operates just like a Squeezebox, so you get a free test drive you can keep, even if you never buy a Squeezebox.

There is an active community of users on-line who produce cool plugins and help each other get the most from their music. Slim Devices is decidedly a friend of free and open-source software. If you're looking for a way to connect your hard drives to your music system, the Squeezebox is a great option for Linux users.

—  
**Damon Riley**

*Thanks for the heads up on Slim Devices and Squeezebox.—Ed.*

### A Call for More Security-Focused Articles, Maybe Even an Entire Issue

Linux, free and secure, is fast becoming a popular choice for secured public computing environments. Live CDs provide an excellent solution for read-only computer access, but for those who would like to deploy a more flexible HD-install Linux solution, there is a complete lack of DeepFreeze-esque software for Linux. Faronics DeepFreeze restores the initial image of a hard disk upon reboot, so that even a user who bypasses security settings cannot permanently affect the machine. It may be possible to create a DeepFreeze-esque solution, system-wide or for specific accounts, without special software, through tmpfs, unionfs or init scripts. Proprietary solutions like Useful Discoverstation seem to have it figured out. Any ideas? There are lots of people like me looking for something like this.

—  
Luke

### Praise for TUX's Landscape-Friendly and Electronic Format

I just opened the February 2006 issue of your magazine and read all 56 pages. I was really pleasantly surprised at how good the pages look—all the text and graphics are sharp and hi-res with Adobe Reader 7 on my SUSE 9.3/KDE desktop. I can actually read the pages, obviously formatted for my 4:3 ratio video full-screen, even without glasses.

I just bought a 681-page PDF book on AJAX and it is formatted like a book not like my screen. As such, is it awkward. I expected the same of the TUX PDF, but it is quite easily read.

I will always take the 20-second download of this file over the stacks of printed magazines I throw out every month. Printing costs money and trees. Besides, the PDFs are searchable within a directory. Keep up the good work.

—  
Alan Gruskoff

### Sincere Thanks for TUX

TUX deserves a pat on the back. Your magazine helps calm the nerves of new users nervous around this new thing called Linux. I believe that your magazine and others like it, if others exist, will play an important part in bringing others over to the penguin side. I was just reading the Letters section in TUX [February 2006] and read someone's account of being asked whether Linux has software to do this or that. It's true that many people don't realize what's available and especially how well it works.

Your articles offer step-by-step instructions and explanations on the software being reviewed. In some cases, your explanations make more sense than the ones that come with the software. I have tried many software packages after reading reviews in your magazine. I look forward to every issue and keep them all for reference.

To make a long story short, I just want to offer my sincere thanks to TUX for doing what it does best, instructing, explaining and promoting Linux.

By the way, I converted to Linux almost one year ago and have not regretted a moment. It's been a great learning experience.

—  
Stan Cook

### April Distro Smackdown Edition

Please include the new Xandros desktop now under beta testing. I have the 3.0 standard version, which is quite good, but I hear this next one is much improved, and it would be unfair to use the 3.0 in a comparative review of state-of-the-art Linux desktop OSes. By the way, TUX is great, and I'm looking forward to the planned 2006 lineup. Good luck in your new job.

—  
DH

*Many thanks. The Smackdown issue is shaping up to be a real knock-down, drag-out issue.—Ed.*

### Request for a Review/List of Ogg Vorbis-Compatible Devices

In past articles, you raved about the Ogg file-format. "Freedom and quality", you said. Regarding the quality, I agree: you get smaller files with the same or better sound quality (compared to a similar MP3 file). Regarding the free-

dom, I took a look at some MP3 players at a popular Web shop, and it did not seem that Ogg support was common, especially among the cheaper players. A review/list of MP3 players that support the Ogg format would be nice.

—  
**Uriel**

*Thanks for the great suggestion, I'll talk to the Gadget Guy and see what we can come up with.—Ed.*

### Request for an Article to Set Up Creative Zen Players in Linux

Being a recent Linux user, I have found your magazine to be very useful and interesting. I found in particular your article on connecting an iRiver to Linux to be of interest [October 2005], but as a dedicated user of Creative Zen players, I would be very interested if in the future you did an article on setting up libnjb and the various software available, either gnomad or kzenexplorer.

Again, thank you for producing an interesting article for people just starting to look at Linux.

—  
**Gavin Blackford**

### Where Linux Falls Down and Can't Get Up Again

As a relatively new Linux user (about six months), I have found several areas where Linux needs to be improved. The first is hardware drivers. Although Kanotix identified and

set up most of my hardware automatically, modems, video cards and printers can be problematic. Fortunately for me, my old HP Deskjet 712c is supported (I had to install a driver using the included printer management utility). It appears that many new printers do not have any type of Linux drivers or support whatsoever. The same applies to many modems. The best thing that dial-up users can do is get an external modem. Even then, it is still best to check for compatibility with Linux before buying. Although Kanotix set up generic video settings that work for most programs, card-specific video drivers are needed to provide 3-D acceleration and activate other special features of some video cards. We Linux users need to demand that easy-to-install Linux drivers are developed for *all* hardware.

PS: I have what might be a good idea for a *TUX* article: explain why you should not log in to Linux as root unless it is absolutely necessary. I understand the security (and other) issues, but some had to be explained to me, and others I read about in the Kanotix forums. Most computer users migrating from Windows to Linux do not understand why they should not log in as root all the time, as in Windows you basically have root privileges all the time (along with practically *no* security!).

PPS: people need to stop whining about the comparisons between Linux and Windows. These comparisons give people an idea of the features and limitations of the operating systems and

software being compared. Micro\$haft bashes and even lies about Linux all the time. So don't get so upset if Linux fans bash back a little!

—  
**Martin**

*Yes driver compatibility is a problem. However, I'd like to reiterate a comment of Mango's this month. When assessing new hardware, please place the availability of Linux drivers as the first criteria. The only way to change manufacturer behavior is to vote as effectively as possible. When we purchase Linux-compatible hardware and peripherals, there is no more effective vote.—Ed.*

### Linspire and TUX Disappoints in Australia

First, I would like to say that I think *TUX* is great. The features discussed on the different software is fantastic, interesting and inspiring for a newbie like me, but I have one gripe! *TUX* proclaimed Linspire as the easiest and, dare I say, the best Linux version available for newbies.

Well, on the strength of that argument, I went and bought Linspire and subscribed to CNR Gold, and so far it has proved no better, and in fact far worse, than some of the other versions of Linux I have tried. As you can imagine I am disappointed in Linspire and as a result, a bit peeved at *TUX*.

I initially encountered troubles in purchasing Linspire. I went through the rigmarole of typing in my e-mail, credit card, etc., and then lockup. By

lookup, I mean that once I entered these details I could not progress to whatever the next field of entry held, nor did I receive a response to acknowledge my entries. Again I tried, and again the same problem. I sent e-mails, and eventually an e-mail reply told me that my payment had been received and my receipt was included. I sent more e-mails asking how can I download my now paid-for version? Where is it? What do I have to do now to get my copy of the OS?

No reply forthcoming, so I went to the Linspire Web site and logged on and found that I was able to download my copy. Hey! I hear you say, this dummy finally worked it out for himself a week later after paying his dollars. I did download my copy and burned the CD and loaded it on, and it was nearly as good as the live CD version—or so I thought at the time.

But then my problems started to compound. Linspire comes in a very basic form, so I subscribed to CNR GOLD (as previously mentioned) to enhance the distro. But, silly me—I was now unknowingly embarking upon a nightmare. I tried to set up the desktop to have six virtual desktops—no go (yet using the live CD this was possible). So, I tried to have only two desktops—again no go. I sent an e-mail, and I'm still waiting on a response after four days.

Ah! I thought—the CNR updates available is flashing at me—hey! Just do it (I thought). Go for the

software updates. Big mistake. What a fool. Downloads commence, program recommends install of such and such, and then the error messages start coming and coming and coming. This newbie is pulling his hair out now with more than two hours of error messages and having copied a few of these error messages to paste into e-mails for Linspire customer service to read and help me out. Alas, three hours of this, and I finally gave up and switched off my PC.

I could go on to explain many other niggling problems I find with Linspire that I didn't find with other Linux versions I have tried, but I'm depressed with the distro enough as it is, and after more than three weeks of this, enough is enough. Linspire is a vexing OS. Or, is it me? I swallowed the hype of CNR (Click 'N' Run), and I regret it. I will try for a refund, though I doubt I will get a reply.

In my opinion, I have had a gut full of Linspire. So it seems at this point in time, I will be saying good-bye to Linspire and good-bye to my dollars and come back Xandros (forgive me for deserting you—the grass was not so green on the other side—even though I was totally green).

—  
ken

*Sorry for your experience, but we did say that Linspire was far from perfect. However, it is an excellent point that part of the usability of a*

*distribution is the experience of obtaining that distribution. Hopefully, by printing your letter in its entirety, Linspire will take a look at the concerns you raise.—Ed.*

### An Inquiry about the Editorial Calendar

Thanks for your 2006 Editorial Calendar. I'm looking forward to the August 2006 Linux Media Center Issue—I think this was originally scheduled a year ago, but pulled without explanation. When I inquired what had happened, I was told it was because of "advertising issues". So, is this calendar set in stone? Can I look forward to the August issue? Thanks for a highly readable and relevant publication.

—  
David Jenn

*You're welcome. I can't really speak about what happened before, but I assure you that I have every intention of following the editorial calendar exactly as written. That said, nothing is set in stone, look at what the Colorado River did in Arizona. Looking forward, I'd like to receive issue suggestions for next year. Send them to ed@tuxmagazine.com.—Ed.■*

**Please send Letters to the Editor  
to editor@tuxmagazine.com.**



# Q&A with Mango Parfait

**Mango is Adept at fixing problems with proxies, panels, partitions, scolding people and much more.**

**MANGO PARFAIT**

Bunny annoys me all month this month. It is not her hang-up with armadillos that annoys me. She talks too much. I do not like it when people talk too much. I do not talk too much. I know when to stop talking. Just tell me when to stop talking and I will stop talking. I know when someone is hinting. I do not need a brick to hit me to know when I am talking too much. So just hint to me that I am talking too much and I will stop. I will stop right then. I will not go on and on until you are bored and fall asleep waiting for me to find the hint that I am talking too much. I am not like Bunny. I stop right away. I am like that when I write too. Just tell me when I am writing too much and I will stop writing. I will stop in the middle of a sentence if I need to. I am not stupid. I know what it means to write a little and write too much. I know when to stop. I wish Bunny would learn when to stop. I would be happier if she knew when to stop like I know when

to stop.

You have sent me so many questions this month I do not know where to start! I am so happy you are sending me so many questions. I do not have to worry about finding good questions for months, even if nobody writes to me for a long time. That does not mean I do not want you to write to me. I want even more questions so I can make any choice I want on which question to answer.

**Q I've had Ubuntu 5.10 installed on my computer for some time, dual-booting between that and Windows XP. Recently, I have upgraded my network to a wireless one. I have installed a D-Link DWL-G122 network adapter on my system, which works fine on XP but unfortunately is not recognized under Ubuntu. I was hoping to run only Ubuntu on my system, but until I get this wireless adapter working, I'm stuck in a Ubuntu/Windows dual-boot.**

**I've done some research, and I found a program called ndiswrapper and tried**

**installing it. I found the installation very complex for a novice like me, and needless to say, I was not successful. Do you know of a simpler way of getting my network adapter working?—Ken**

**A** No.

I'd like to stop there, but I do not like to pass up the opportunity to scold people. You run Linux. So why do you buy a network adapter that does not have a native Linux driver? This does not make sense.

You are not stuck. Here is my advice. Return the D-Link adapter and exchange it for a network adapter that has a native Linux driver. If you cannot return the adapter, buy a new one anyway.

Call D-Link or write to them. Tell them that you are very unhappy because you bought this adapter and it does not work with Linux. Tell them you will tell all your friends that D-Link is like sushi with parasites so do not buy D-Link products. Tell D-Link the name of the company of the

new one. Tell them how much you love the other company because it makes an adapter that is just as good as DWL-G122 but works with Linux. Tell them you will tell all your friends about this super company and this super adapter.

If you do not buy a new adapter, the only way to get this one working is to use ndiswrapper. It does work with ndiswrapper. Like you say, it is not easy. You can find instructions on how to use ndiswrapper in the November 2005 issue of *TUX*.

**Q** Hi Mango. Because you are partial to KDE, I think you can perhaps be so kind as to point me to where the error lay. What error you ask? The problem is that it seems that I lost the taskbar along the bottom of the screen in KDE (KDE insists that it is present and accounted for). Mmmm, perhaps a little more info will help. I am running SUSE 10.0\_64, using both KDE and GNOME (sorry Mango, but variety is the spice of life). I cannot remember what I did or tried to do, but the result was the loss of the taskbar. I cannot find it, nor can I find any setting to return it. I have created a new taskbar and populated it with the most used icons.

When minimizing any window at present, it simply disappears to the invisible taskbar, and I'm unable to recover the application. When trying to open Firefox

or Kinternet, I get a message that insists that both are running and that Kinternet is the green icon on the (invisible to me) taskbar. So, at present, I use GNOME to do most of my work (yes, I thought that would offend your delicate sense of right). Speaking of GNOME, is there a way to change from double-click to single-click in GNOME? I detest double-click, as it seems so "Windows" and is a waste of energy.

On the subject of desktops (it seems I'm going to rain on your parade) take a look at <https://lg3d-core.dev.java.net>. Very, very nice. Now if I can just get it running. Thanks for all.—*evert*

**A** I do not have a 64-bit computer. I think I may buy one soon. I am sweet and delicate. I like power. I like this combination. I hope to be a sweet and delicate tyrant someday. It is good to have a dream.

When I can afford to buy more power, I probably will buy a computer with the dual-core AMD 64. But now I do not have one. So I cannot try to make the same thing happen on my PC that is happening on your PC.

I can make the panel disappear on my system, so I will guess that your problem is like the one I can make happen.

Here is how to fix the problem I can make happen. Right-click on an empty

space on the panel you can see. Select Configure Panel... from the pop-up menu. You will see a window like the one shown in Figure 1.

Pay attention. Your window probably will not say Settings for: Main Panel. This is good. Check the boxes like I have them checked. Check the box for Only hide when a panel-hiding button is clicked. Check the box for Show right panel-hiding button.

Now click on the drop-down control next to Settings for: and select Main Panel. Check the boxes like I have them checked. Check the box for Only hide

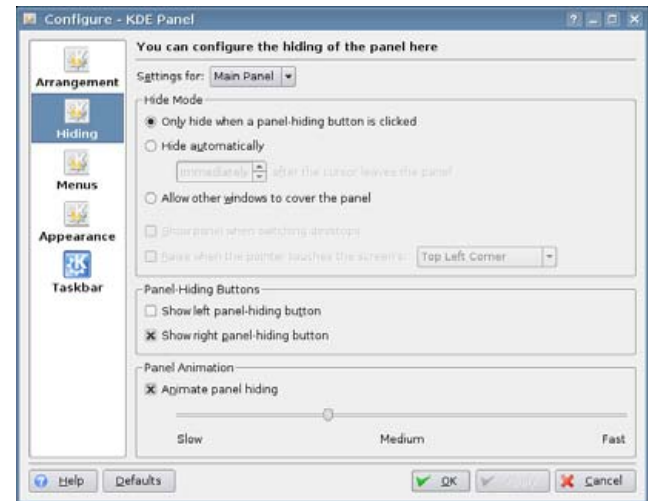


Figure 1. KDE Panel Configuration Dialog

when a panel-hiding button is clicked. Check the box for Show right panel-hiding button.

If your problem is the same as the problem I made myself, it should be fixed.

I made the problem happen by making two panels without hide buttons and told KDE to hide both panels automatically. When I do this and move the mouse to the panel spot, KDE makes only the second panel appear. It should not be possible to make the first panel disappear forever in KDE. Somebody at KDE must write code to make sure nobody makes this happen by accident. But KDE should not take away the options. They should just write code to make sure that users cannot hide the main panel forever by accident. That is the right way to fix the problem.

GNOME uses the wrong way. GNOME developers think "Users are too stupid to use fancy features without getting into trouble. We are too lazy to make sure these features will work without users getting into trouble. So we just remove them." Maybe I am wrong. Maybe they are not lazy. Maybe they are just tired because they have Mono.

Thank you for the URL, but I already know about Project Looking Glass. It looks very nice, but it is never finished. It does not run on my Kubuntu system.

The developers are slow, but I hope they do not think like the monkeys who make monkey-brain GNOME things like the GTK and GNOME file load and file save dialog.

**Q** Re: your answer in issue 10 of *TUX* about floppy disks in Ubuntu Breezy. Yes, you are right, it's broken! But there is a slightly better method for solving the problem than the one you gave. Instead of using mount, use pmount. That way you don't have to mess with /etc/fstab.

I have added two icons to my toolbar. One runs a small shell script:

```
#!/bin/bash
pmount /media/floppy
nautilus /media/floppy
```

This mounts the floppy and opens it in Nautilus.

The other icon simply runs the command `umount /media/floppy`.—*Andy B*

**A** This is not a question. It is an answer. It is a good answer. I hope the people who are wise enough to read my articles will read this answer. Thank you. But do not get any ideas about taking my job. I need the money to buy more shoes. No, Bunny, I do not want armadillo leather boots. Sorry, my

friend Bunny is here reading my answers and she thinks I should buy armadillo leather boots.

**Q** Hello there, I have test-installed Kubuntu under VMware (Windows version) on a company computer, and I use it behind a firewall and a proxy.

Adept doesn't work—it seems it doesn't get a connection. When I start the updater it remains on 0%, getting program headers for a while and then returns without an error message. I started `sudo apt-get update` on a console, and it behaves the same way (at least it reports a timeout error).

Is there a way to tell Adept about the proxy and which port it should use?

Thanks in advance for your help.—*L Jerren*

**A** Adept does not have settings for a proxy. You are lucky. Adept uses the same settings as apt. So you can set a proxy for apt, and it will make your problem with Adept and apt-get go bye-bye.

Press Alt-F2 and start your favorite editor with sudo. For example, type (change the word editor to the name of your editor):

```
sudo editor /etc/apt/apt.conf
```

The file `/etc/apt/apt.conf` does not exist in Kubuntu. So, you will not see anything when your editor starts. Type in this text. Change the word `squidproxy` to the domain name or IP address of your proxy server. I do not know if your proxy is squid but my example is for squid. So, my port is 3128. If your proxy uses a different port, change 3128 to the port for your proxy:

```
Acquire
{
  http
  {
    Proxy "http://squidproxy:3128";
  }
}
```

Save the file and exit. Now you can use `Adept` or `apt-get`. If you use FTP repositories too, you must add a section for FTP like the one for HTTP. I do not use FTP repositories because they are slow for me, and some proxy servers make it very hard to get FTP to work. If you want to use FTP, you must study the options for `apt.conf` to learn about all the many settings you can try to make FTP work. It is easier to use HTTP and not FTP.

**Q Dear Mango, my primary distro is Ubuntu (Breezy for now), just like many others. However, my old laptop cannot bear the load of GNOME or KDE (possible but too slow). So, I set up a server installation, and later installed IceWM as my desktop.**

**My problem is this: if Dapper Drake comes out, it would be ready with GNOME and KDE, but IceWM may not be ready at the time. If I upgrade my distro at that time, I might get stuck with the command line if there is no compatible IceWM available. But, I can know whether IceWM is available or not only after setting up the new upgrade together with Synaptic.**

**I met this problem when I upgraded from Hoary to Breezy too.**

**How can I avoid it with the future upgrade?—Ven. Pandita (Sri Lanka)**

**A** Here is how I would check. Run Synaptic and change all your repositories from breezy to whatever the new name will be (dapper? I do not like this name). Click the Reload button on Synaptic and then search for IceWM.

Do not forget to change your repositories back to breezy when you are done. Then, click the Reload button on

Synaptic again.

If you do not like this answer, try this. You can get a live CD version of Ubuntu and Kubuntu. Create a live CD and boot this CD. You can run a package manager on GNOME or KDE on the live CD and use it to see whether IceWM is available. If this is too slow for you, do not load a window manager. Go to the command line and type:

```
sudo apt-cache search icewm
```

If you see IceWM and a list of IceWM support packages, you know IceWM is available. It is possible that IceWM is available, but you do not see it because it is stored in a special repository.

**Q Dear Ms Mango, I love Linux passionately (Mepis especially, though there are so many great choices) and would like to be using it right now to type this e-mail to you but I have this, well...problem.**

**I need to make regularly scheduled, whole-drive backups—images—much like I do with Acronis TrueImage or Norton Ghost when I use Windows XP. Can you recommend any software for Linux (free or otherwise) that will allow**



**me to perform the same hassle-free imaging experience I have with those two programs? I have overcome most other stumbling blocks that prevented me from committing totally to Linux from Windows, but this one remains, and I am certain there is probably a simple answer to this problem. I've Googled the problem and done some other reading, but none of the "solutions" I've found seem like they would perform what I need them to do, the way I need them to do it.**

**Thanks for any help in advance; I think we all will see how much a blessing Linux is (no matter what distribution you like) once Windows Vista comes to market. I just want to make sure I'm ready for the complete transition to a humanistic operating system that allows me to do what I want, the way I want, when I want.—Ed**

**A** I am not sure I can give you a good answer. I do not use Acronis TrueImage. I do not use Norton Ghost. So, if I do not know about these programs, how can I tell you about a Linux program that does the same thing? I do not know what the same thing is.

The one thing you say is that you

want to make backups. I will guess that you do not need to take an image you make from one drive and put it on another drive that has a different size. That is a different thing from backups. I will guess that you want to create an image that you can use to restore data back to a drive that is the same size.

Maybe you want to create an image of a whole disk, even if the disk has many partitions. If you want to do this, try the `dd` command. Here is an example.

You need to be root to do these things. Unmount all partitions on the disk you want to back up. Maybe this disk is `/dev/hda`. Then, type the command:

```
dd if=/dev/hda of=name_of_image_file
```

This copies the whole disk `/dev/hda` to the file named `name_of_image_file`. You can use `dd` to copy the image directly to a tape or another backup device. You must know information about the backup device to do this, so you can set the parameters for `dd` to know how to send information to this backup device. I do not know anything about your backup devices. I cannot tell you what parameters to use. Read the man page for `dd` to study the different options. The command is:

```
man dd
```

I do not use `dd` because I do not back up drives. I back up partitions. I also do not like to back up empty space.

I use a free, open-source program called `partimage`. You can get `partimage` for almost every distribution. `partimage` will copy the data from a partition and not the free space on that partition. It can compress the data to create a smaller image file.

`partimage` does not restore data to a partition that is a different size. But, you are talking about backup and restore, so I do not think that is a problem. I never have problems using `partimage` with `ext3` partitions or `reiserfs` partitions. It saves `ntfs` partitions, but I have never tried to restore an `ntfs` partition. I do not know if it can do that without mistakes. `XFS` has its own backup and restore programs, so I do not recommend using `partimage` with `XFS` partitions.■

---

I am a sweet, humble, delicate and very cute genius who is at your service to answer your Linux questions. Send your questions to [mango@tuxmagazine.com](mailto:mango@tuxmagazine.com). I am deeply sorry that I do not have time to respond to anyone directly by e-mail, but I will select as many questions as I can and answer them here.



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## Hydrogen—the Home Musician’s Free Drum Machine, Part II

We wrap up our two-part drum machine article, grinding into the advanced capabilities of Hydrogen. JOHN KNIGHT

Last month, we took you through the basics; this month, we do the advanced/fun stuff. Instead of the boring old drumkit and the same old sound, we trigger notes by the keyboard, add accents, change the acoustics of the kit, apply external effects to the current sound, import new drumkits and show you how to make your own.

### KEYBOARD PLAYING

Instruments can be triggered using the keyboard, which means you can play around freely and place the notes by feel, instead of textbook-like composition. These notes also can be recorded with the Record button in the recording section at the top of the pattern editor (see the manual for a key reference). If you are having trouble keeping things in time, the Q (Quantize keyboard/midi events to grid) button in the recording section snaps each note to the grid for perfect timing.

If you define your own set of eclectic samples, you can trigger them live via the keyboard during a music recording. Ultimately, it’s up to you how far you want to push the program, and you may even get it to do new things that were previously not imagined.

### SONIC MANIPULATION

Last month, I briefly mentioned randomize velocity, which randomly changes how hard each note is played to provide a more human feel. This month, we have a whole section dedicated to making the sound more dynamic and human, as well as changing the acoustics of each instrument.

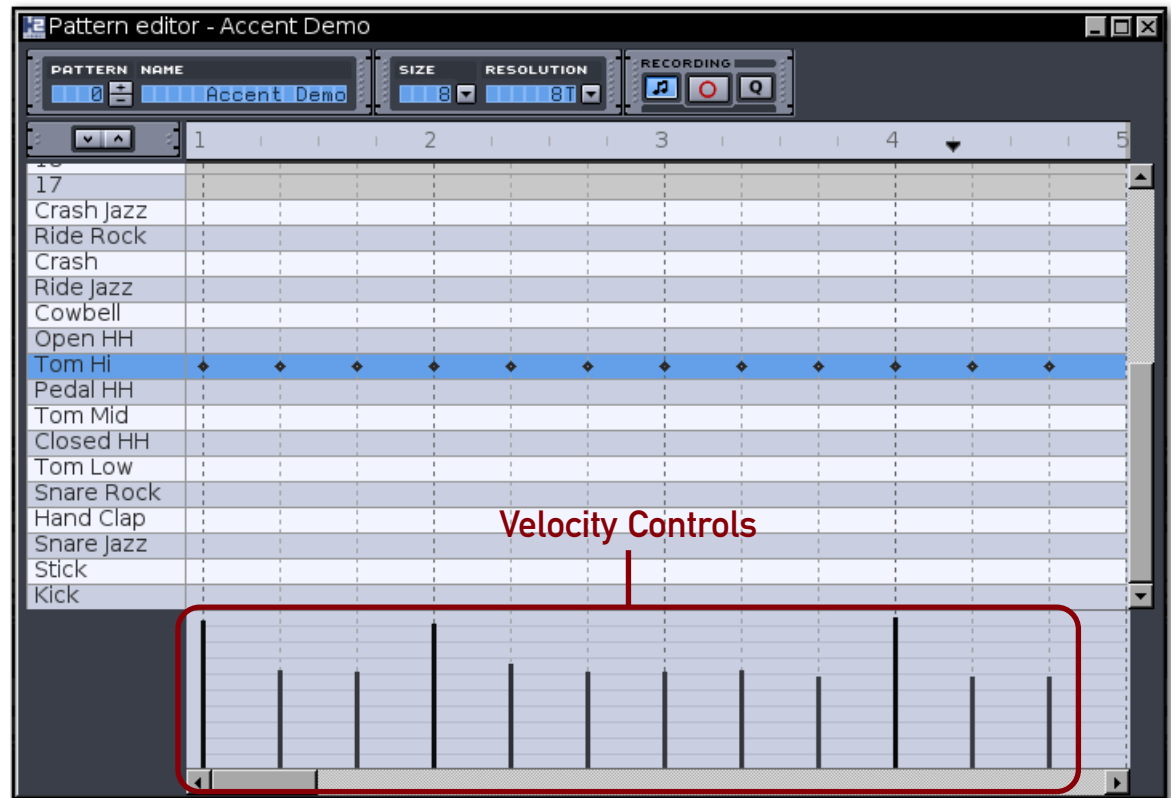


Figure 1. Changing the velocity or adding accents can change the entire feel.

### VELOCITY AND ACCENTS

One of the appealing aspects of human drumming is accents, and one of the tedious aspects of electronic drumming is the general (or often total)

lack of them. The usual way a drummer accents a note is by hitting that note harder than the rest, which adds emphasis and dynamic to a particular section of music. Most DJs and electronic music

composers do poorly in this regard and generally never use them, which gives electronic drumming a stigma and a very bland sound. However, Hydrogen allows you to place accents wherever you want, on any instrument.

Let's demonstrate this with a basic hand-percussion-style beat. For this demonstration, we use the Hi-Tom, but feel free to use/add something like a bongo drum instead (see the Drumkit section).

1. Make a new song, and in the Pattern Editor, change the resolution to 8T (eighth-note triplets), and make sure the size is set to 8.
2. Right-click on Tom-Hi, and choose Fill notes. Now click Play, and you'll hear a monotonous passage of single tom-tom notes. Now, we need to add accents.
3. Accent beats 1, 3 and 4 by clicking near the top of the line in the velocity section at the bottom of the Pattern Editor (Figure 1). You may hear a slight difference on the accented notes, but it's really not enough, so....
4. Drop the velocity of the normal notes a few notches to emphasize the accented notes (also shown in Figure 1).

Now, the effect of the accents should be quite apparent, and you can (and should) play around with where you position them, the velocity of other notes and on which instruments you use them. If you try to apply accents to a normal drumbeat using several instruments at once, be aware that changing the velocity affects each instrument in isolation, and not all of the instruments on the same beat. To apply accents to



**Figure 2. The four little knobs, finally put to use!**

other instruments, simply click on the instrument name on the left first, and you'll be good to go.

## ACOUSTICS

You also can alter the acoustics of each instrument with the Instrument Editor. To open the Instrument Editor, simply double-click on an instrument's name in the mixer. This brings up a window with a number of knobs that all tweak particular acoustic qualities of an instrument. I'll leave you to experiment with them, but remember that the best way to test them is to set up a steady pattern of notes from the instrument in the pattern editor, and then tweak the sound as it's playing. Of particular note are Attack and Sustain, which make a fairly apparent change to the sound, but all the effects are worth exploring.

## LADSPA FX

With the new LADSPA effects system, you can modify the sounds of the instruments by using any of a large number of sound filters. Have you

been wondering what those four little knobs above each instrument's volume slider do? These are assigned to a particular effect, and each knob controls how much of the effect is applied. But before we can do that, we need to search through the available effects and utilise them.

First, change to the mixer window and click on the FX button in the bottom right-hand corner. A new section appears with four fields saying, "No plugin". For the sake of simplicity, let's use the first one for this example. Click on the Edit button, and in the new window, click Select FX. A new window pops up, with a list of effect categories on the left; each subcategory will appear on the right when you click on a category. (Note, if you have no choices available, you probably don't have any LADSPA effects installed, see the LADSPA sidebar). Choose an effect that sounds interesting, click OK, and we'll apply it to an instrument.

Now, a new window should open with the properties of the applied effect. Each of these slid-

ers controls various acoustic aspects of the effect and can be changed on the fly. Clicking Select FX lets you choose another, and clicking Deactivate turns the effect off. In order to use it, change to the mixer and choose the instrument on which you want to try it (I like the closed hi-hats for most testing, but feel free to use anything).

First, click the Play button at the top of the instrument's section in the mixer to hear it unmodified. Next, of the four little knobs, turn the top-left one all the way around, and now play the sample. There should be a noticeable difference in sound, but it's probably not a pleasant one. Turn the wheel back until you reach a level you're happy with, and then try the new-sounding instrument in a beat. As you can hear, the new effects add a whole new life to the mix.

If you go back to the mixer, all of the top-left

knobs on all instruments have the first effect applied to them. Feel free to apply it wherever you like. If you follow the previous steps, you can apply effects to the other three knobs too. Also worth mentioning is the Return knob and BYP, or bypass. These are located in the FX section in the mixer, and if the FX section is gone, simply click on it again in the bottom-right corner. The Return knob changes how long the effect is sustained before cutting out, and it can be particularly useful if an effect sounds over the top or not obvious enough. The bypass button, or BYP, simply disables the effect temporarily.

## DRUMKITS

Don't feel that you have to be stuck with the same drumkit sound that you are given by default, as you can change to another drumkit by clicking on View→Show drumkit manager. Here you can

load a new kit, save your own and import/export new drumkits. For more drumkits, you have to visit the drumkit section on the Hydrogen page at <http://www.hydrogen-music.org/?p=drumkits>. Once downloaded, simply click the Import tab in the Drumkit manager, browse for the new file and click the Import button. Change over to the Load tab, click on the new kit and click Load.

I rather like the YamahaVintageKit, which although it has a lot less instruments than the default, is sampled from a real-life drumkit and sounds a lot more realistic. For a full-on kit with toms, chinas and a good open hi-hat sound, try the Roland TR-626.

## MAKING YOUR OWN DRUMKIT

If you have your own drumkit, or at least one you can record some samples of, you can create your



## INSTRUMENT POSITIONING

An instant way to add life to the kit is to give each instrument a position in a sonic landscape using the balance controls. Simply send each drum and cymbal somewhere left or right in terms of where they would sit on a real kit, and keep the snare and kick in the middle.

← Instant Life with Stereo-Ed Up Drumkit

own kit to use in Hydrogen. First, you need to record your drums. How you do that is up to you, but I simply used one mic at a time with a single instrument. I used Audacity and recorded a .wav file that was several minutes long with me hitting each drum or cymbal a few times and varying each note a little with different styles. With each note, allow enough time for it to die off, or you won't be able to isolate it when you're editing later.

At the end of this process, you then can choose the notes that sound the best and turn them into individual instruments with their own .wav files. It's also important to chop off any space before or after the note in each .wav file, or else it will be out of time. Once you're happy with the .wav, make sure it's set at 44.1KHz, or it'll play at a strange speed. These tips aside, there are endless ways to record drums, and how to do so is up to you.

At the time of this writing, putting together the new kit was not an elegant process. This will be addressed in later versions, and as this is unfinished software, it is excusable. For now, the easiest way to make your own instruments is to edit a current instrument and rename it. Here are the steps:

1. Double-click the name of the instrument in the mixer to bring up the instrument editor.
2. Change to the Layers tab in the instrument editor, click on Load Layer, choose your new sample and click Open.
3. Change back to the Instrument tab, and click on the large print instrument name. This brings up a dialog to rename it, so choose your name and click OK. Your new instrument

is ready to use, but first....

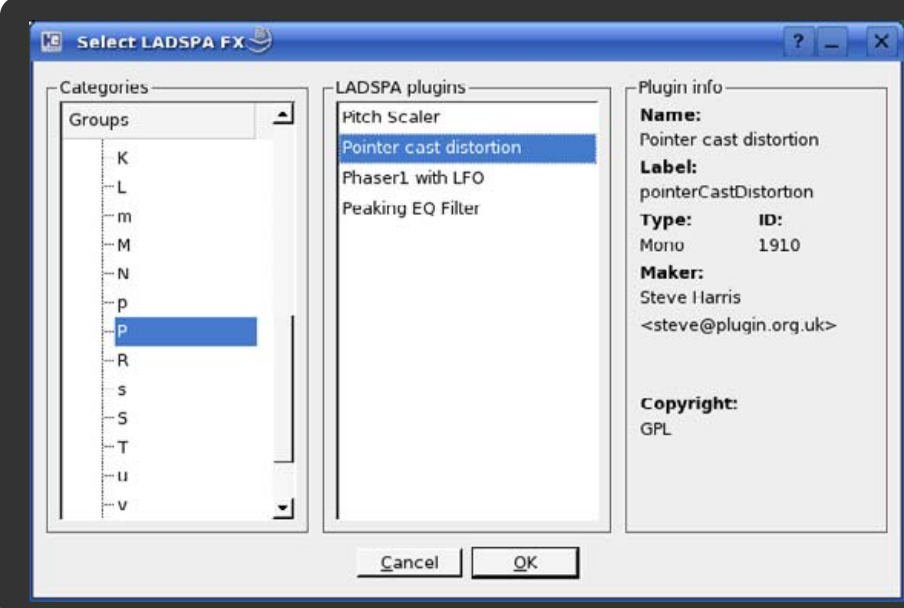
4. Move the instrument up or down using the arrow buttons toward the top-left corner of the pattern editor so it sits nicely in the list (plus the name won't change until you do this). Repeat the same steps for each instrument. If there are instruments you want to remove, simply delete the layer and rename them to an unused number.
5. Open the drumkit manager, and change to the Save tab. Give your drumkit a name, and enter a little about yourself and the kit in the given fields. Click Save.
6. Change to the Export tab, and click Browse to choose where you want to place your kit.
7. Choose your kit from the drop-down list and click on Export.

You now have a kit to share with the world! Ultimately, making a new kit gives something back to the community, and other musicians can benefit from your work. It doesn't have to be only drums either—why not something original and weird, like an entire percussion section made up of bin-lids or old furniture?

I hope you've enjoyed this series, and I look forward to seeing what music you create. ■



John Knight is a 21-year-old, rock-climbing, Japan-loving megalomaniac, trying to take over the world from his bedroom via his keyboard. He spends most of his time tinkering with MPlayer and headbanging to his MP3s.



## LADSPA FX

LADSPA (Linux Audio Developer's Simple Plugin API) provides a bundle of audio plugins that can be used with a large number of applications—anything LADSPA-friendly. If you don't have any LADSPA plugins installed, visit the home page at <http://www.ladspa.org>.

← The Large Range of Effects Available with LADSPA

## OpenOffice.org Writer, Does More Than Just Word Processing

In the second part of this article about the new OpenOffice.org Base component, we finish the application we started in the previous issue, plus we complete a simple mail merge, using the new Mail Merge Wizard.

KEVIN SHOCKEY

Starting with the Exercise Log database that we created together in last month's issue, let's go ahead and finish our application. I'm sure that your Exercise Log database is filling up, and you're anxious to print out your log so you can brag to all of your friends. With the Base Report Wizard, you'll be rubbing your friends' noses in your exercise progress faster than a new Google rumor spreads through the Internet. Click on the Reports database object, and select the Use Wizard To Create Report task. The wizard will guide us through the process of creating a new report.

Six steps are involved in creating a new report. In general, the steps involve selecting the data required for the report, identifying labels, selecting the grouping options, the sort options, the layout and creating the report. Once the report wizard starts, you first must choose the source of the data for the report and the order of the data on the report.

Because our database has only one table, it is selected immediately. If you have more options—for example, if we had created a Query database object to select a specific month of data—use the Tables or Queries list box. Selecting a table or query populates the Available fields list box. As with all of the other wizards, use the >> or > buttons to add all or specific fields to the report. To remove all or specific fields, use the << or < buttons, respectively. When complete, the first step of the Report Wizard should resemble Figure 1.

For our new exercise log report, I selected all of the fields by clicking the >> button. I then removed the LogID field and Notes fields by clicking the < button. I decided to rearrange the order of the first few fields to coincide with PersonID, WorkoutDate and TimeExercised by using the up and down arrows found on the side of the Fields in Report list. Click on the Next button to advance to step two.

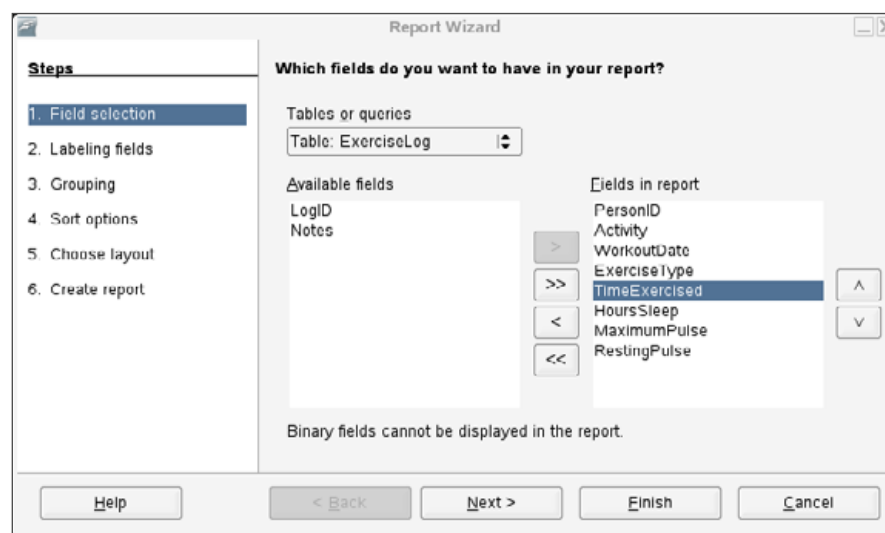


Figure 1. First Step of the OpenOffice.org Base Report Wizard

The second step allows us to modify the labels associated with our data. By default, the labels are the field names. Because field names cannot have spaces, you might find some labels given as WorkoutDate and ExerciseType. This step displays two columns of information. The first col-

umn on the left contains the actual field names. The second column on the right contains the label. Edit each label to your preference. I simply added a space between words for all of the field names and added the word rate after the fields MaximumPulse and RestingPulse, as shown in Figure 2.

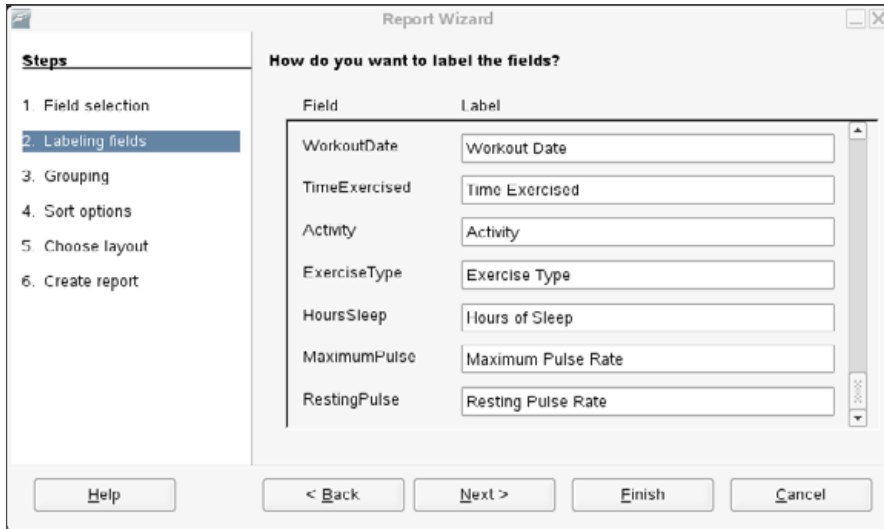


Figure 2. Modifying Data Field Labels

I also removed ID from PersonID. Click Next to go to step three.

The grouping step of the Report Wizard allows us to group the data together to improve readability. This is desirable, because it lets us simplify the report. For example, if you and a friend have both started a new exercise routine, you might want to track both of your progress. So, while adding data, you would choose Person identification 0 for you and 1 for them. If you were to print out the data without grouping, the other person's data would be mixed in with yours, making it more difficult to read, follow progress and so forth. By grouping the data, you can specify that the data is grouped

by Person, meaning that all of your data appears together with your friend's data grouped separately. To implement this grouping for our report, click the PersonID field, and then click the > button. This moves the PersonID field over to the Groupings list, as shown in Figure 3. Click Next to go to step four.

To give an added touch of readability, let's add an additional sort order to our report. Recall that in order to group the data by PersonID, Base must first sort by PersonID. This is reflected when you see the fourth step of the Report Wizard. The Sort by selection already has PersonID, which was the grouping we selected in the previous step. To prevent

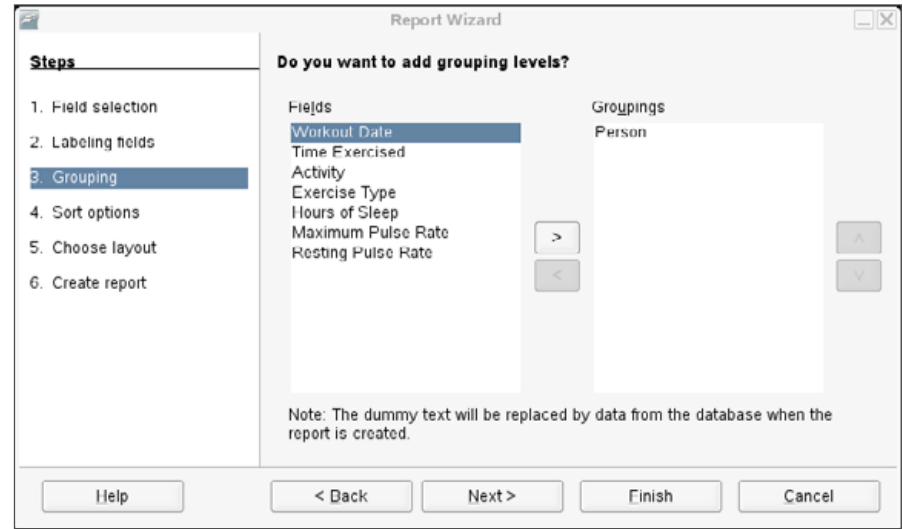


Figure 3. Adding a Grouping Level

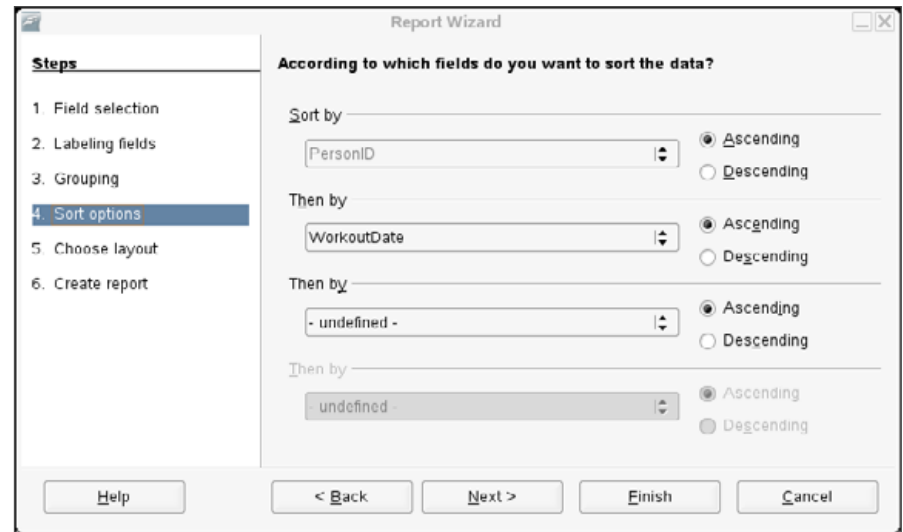


Figure 4. Sort Option for Additional Sorting



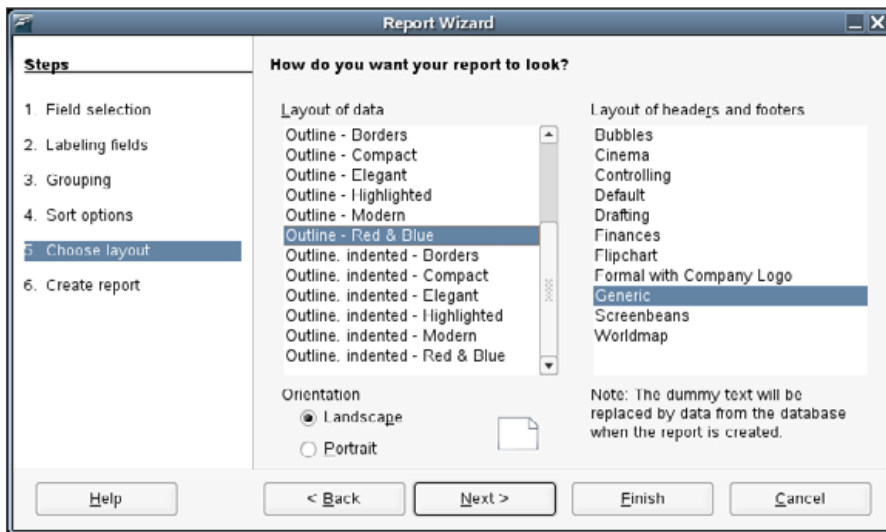


Figure 5. Layout Options for the Report Wizard

potential errors, the wizard disables the Sort by selection option, so the first option enabled is the Then by option. Select the WorkoutDate, which will sort within each PersonID group by the date of the exercise. Figure 4 illustrates this selection. Click Next to proceed to step five.

Just as with the Form Wizard, as we make selections in the Report Wizard, the wizard is constructing the report in OpenOffice.org Writer behind the dialog. Note that it is using dummy text to create the report. The wizard will replace this text when the report is complete. The fifth step is focused on the look of the report. With this step, we choose the layout of the data and the layout of the

headers and footers. There are three basic layouts: Align Left, where the fields are laid out in a tabular fashion with all data aligned left; Outline, where any data fields that group the report are listed once and then not repeated on each row; Outline and indented, similar to the outline layout but also indented from the left edge of the report. The layout of the headers and footers contains 11 options that assign a header, footer and page background. For our exercise log report, I selected the Outline - Red and Blue layout with the Generic layout of the headers and footers. These choices are shown in Figure 5. I stayed with the default Landscape orientation, but if necessary, you also can

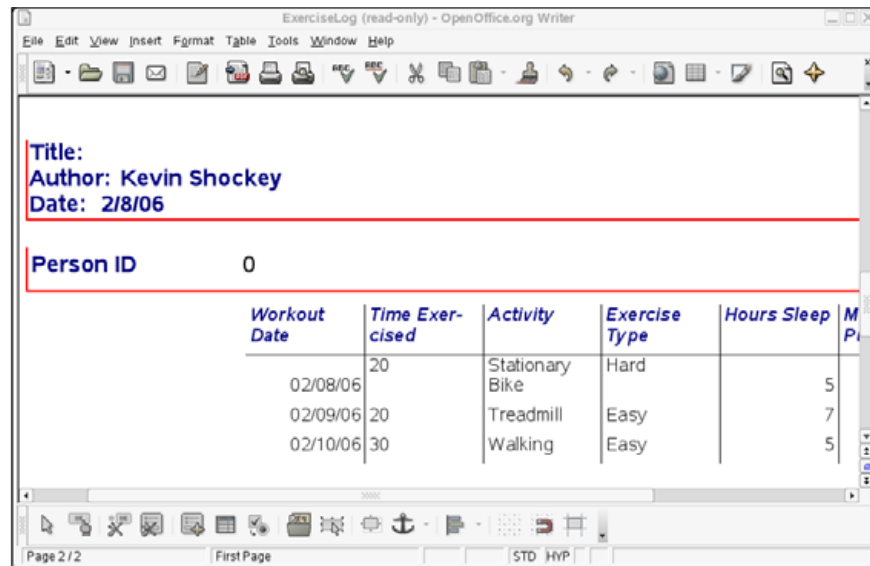


Figure 6. Completed Report

choose Portrait from this step. Click Next to go to the last step.

Other than choosing a name and deciding what to do after finishing the wizard, a potentially confusing option on the last step is what kind of report you want to create. A static report document saves the output of the Report Wizard at the time the Report Wizard is finished. The other option is a dynamic report template. A dynamic report creates a report database object that you can re-use. It also creates an entry in the Links heading in the data source explorer. This is a confusing way of making you choose between a one-time only report with the current data, or a re-

usable report that you can print any time you want. I imagine that for most cases, a dynamic report provides a little more flexibility. However, editing a dynamic report template is way beyond a new user's interest or ability. Although both the Form and Report functionality use the OpenOffice.org Writer component, modifying a form design is significantly easier to do than modifying a dynamic report template. To finish our exercise report, I used the default name suggested, which was based on the data source. I chose the dynamic report and decided to create the report immediately. Figure 6 illustrates the final report.

With this step, we complete our

database application. We created a new database, a new table, a form for data entry and a report to print out our data. We did this using mostly wizards, but taken together Base still provides a very powerful little system.

## COMPLETING A DATA MERGE USING THE MAIL MERGE WIZARD

One of the most popular tasks people use both a database and a word processing application for is a mail merge. Originally, this referred to the specific task of merging data with a template to mail a stock letter to a group of addresses. Now, this generic term applies to any task of merging data with a template. Any decent office-supply store will carry a wide range of paper products that, combined with the pre-formatted templates available within OpenOffice.org, provides great power to any user. From shipping labels to business cards or name tags, this combination of tools can provide highly professional results with a little bit of effort.

Recently, a project of this nature fell into my lap. I had to take a spreadsheet of contact information and a couple boxes of name tags and produce a bunch of name tags for a group of people registered for an activity. When I started working on this task, I immediately thought of the new Mail Merge Wizard in OpenOffice.org 2.0 to solve my problem. OpenOffice.org solved my

problem in three steps. First, I had to create a database to connect to the spreadsheet containing the contact information. Second, I needed to create a label template that would lay out my merge fields and format the template. The final step was running the Mail Merge Wizard.

In order to use the spreadsheet information, you first have to create a new database. From any OpenOffice.org component, select File→New→Database. You should see the Database Wizard start. I described how to use the wizard in the previous issue; this time, we will connect to an existing database. Click on the Connect to an existing database option, and the list box will enable, allowing you to select the database type. Select the Spreadsheet option, as illustrated in Figure 7, and click on the Next button.

We next need to set up a connection to the spreadsheet. If you know the fully qualified path and filename, enter them in the Location and filename fields; otherwise, click on the Browse button and locate the spreadsheet file. After the file is found, and the name and location appear in the wizard as illustrated in Figure 8, click on the Next button. Make sure you register the database with OpenOffice.org in the last screen of the Database Wizard, and click the Finish button. The wizard finishes creating the database, saves the database and then opens the

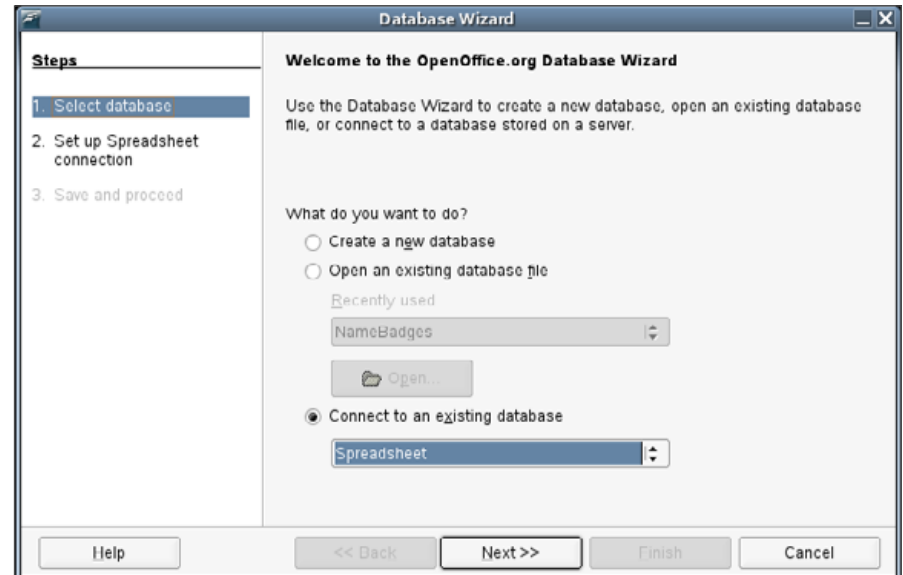


Figure 7. Connecting to an Existing Database

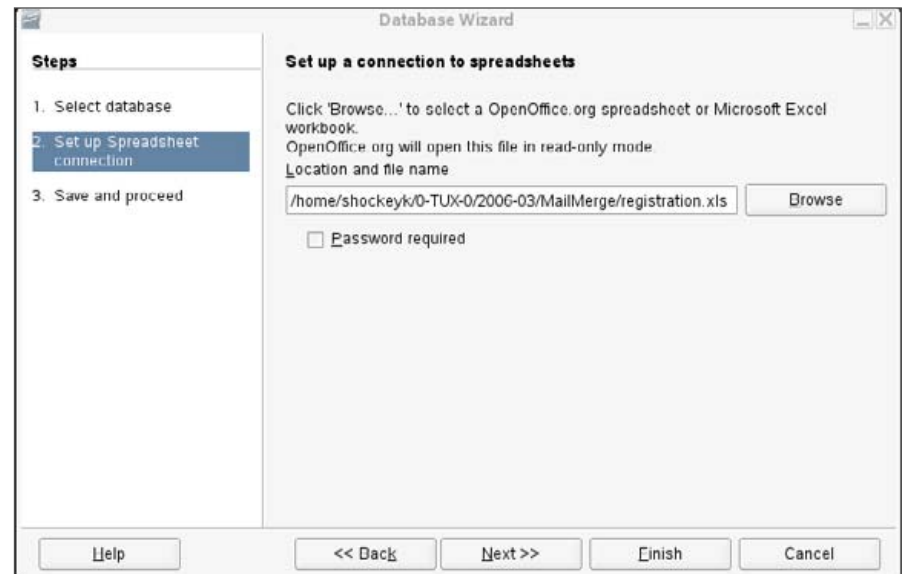
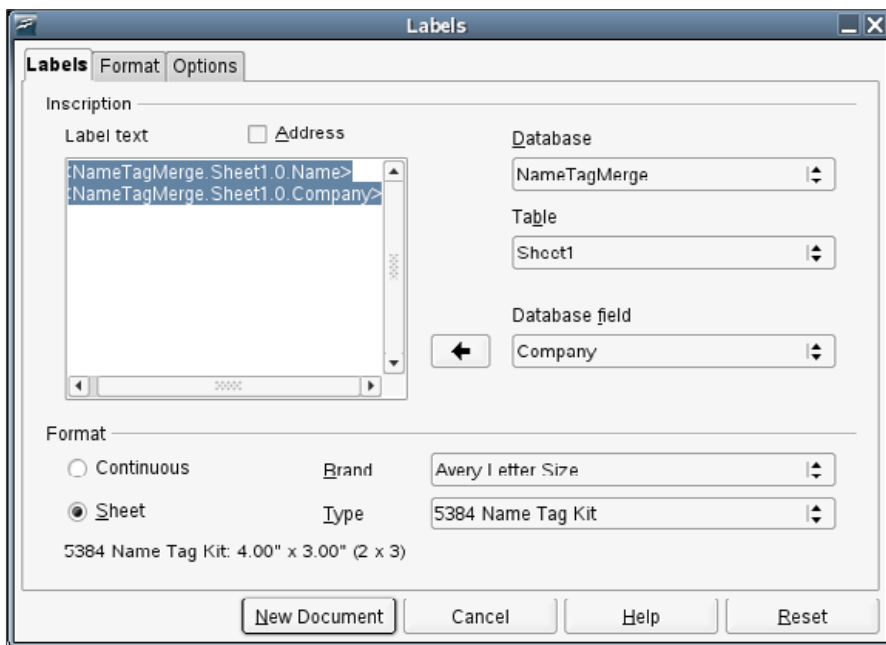


Figure 8. Setting Up the Database Connection

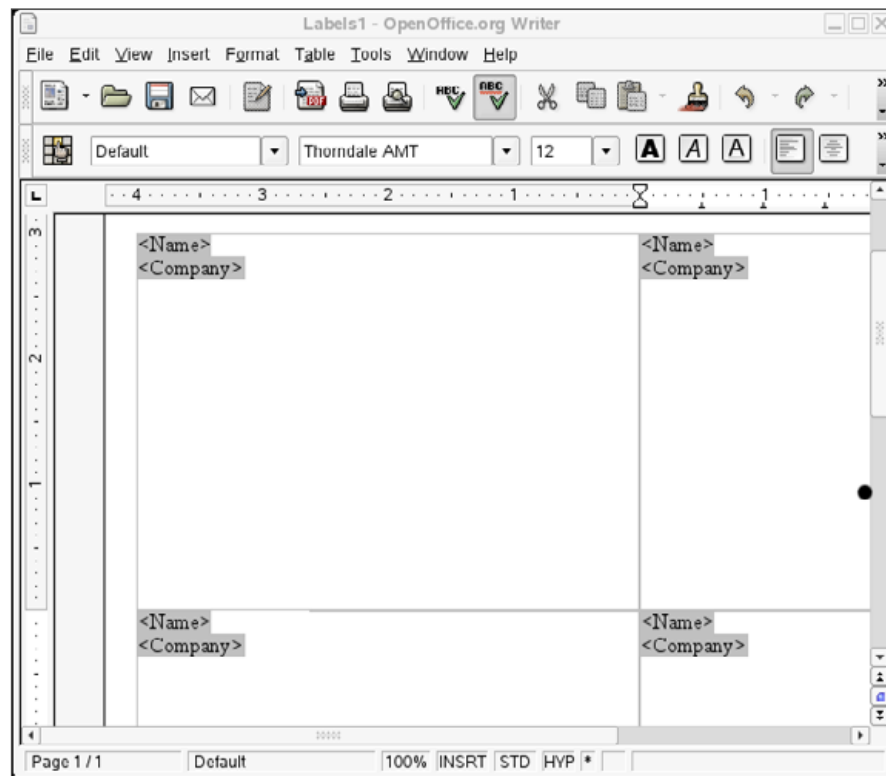


**Figure 9. Completing the Label Wizard**

database for editing. You can close the database file as soon as it opens.

Now, in the second step, we need to create a template for the data merge. We use OpenOffice.org's built-in definition of labels to create a specific layout to match my name tag dimensions. From any OpenOffice.org component, select File→New→Labels. You should see a new window appear—the Labels window. The initial tab displayed is the Options tab; click on the Labels

tab. The Labels tab lets you build the inscription and set the format for the new labels. The inscription is the text you want to display on each label. For our example, we will pull this text from the spreadsheet. To add field information from a database, first select the database from the list of registered databases available in the Database list. In my name tag project, I selected the name of the database created in the previous step. Immediately, the Label Wizard



**Figure 10. Finished Label Template Document**

populates the Table list with all tables defined in the database. In my example there was only one table, so it becomes the only option available. Select the table from the list. Once again, the Label Wizard automatically retrieves the column names from the table and displays them in the Database Field list.

In general, the process of adding database fields to the inscription involves locating the required field and clicking on the field. Right next to the Database Field is a button with a left-facing arrow. This button moves the database field into the Label Text field. In my example, I located the

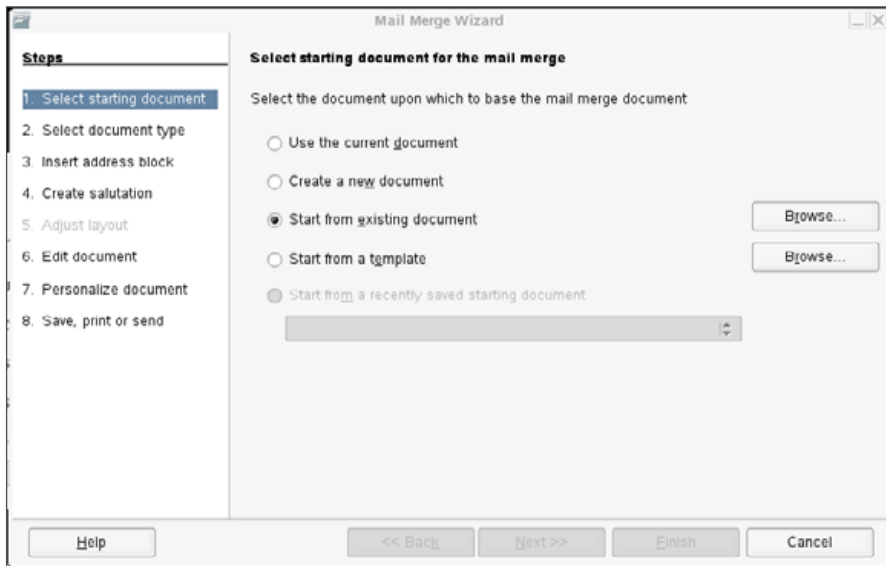


Figure 11. First Step of Mail Merge Wizard

Name field and clicked on it. Then, I added the field to my label text by clicking on the left-arrow button. I clicked into the label text after the <NameTagMerge.Sheet1.0.Name> entry and pressed Enter. This moved the cursor to the next line, ready to receive the second field. I repeated the database field add process using the Company field. The label text then resembled Figure 9.

With the inscription complete, we next need to finish the formatting for the labels. There are three main options in this section. First, you can choose whether the labels are one

continuous sheet or separated individually, specify the brand of the labels and the specific type of labels. The name tags I was given corresponded to separate sheets, the Brand was Avery Letter Size and the specific type was the Name Tag Kit. I made those selections and then clicked on New Document. At this point, the Label Wizard created the label template and opened the template. The template consists of one page of labels with placeholders for the database fields. Figure 10 illustrates this new document. At this point, you are free to format the

template as desired. A couple of quick changes to consider are centering the database fields and increasing the font size. You also can insert a picture into each table cell to give the labels some color or character. Save the file and close.

In the final step, we generate the merged document using the template and the database. From any OpenOffice.org component, select Tools→Mail Merge Wizard.

Although the wizard contains

open window appears, locate our document and click Open. When you return to the wizard, click on the Next button. The next three steps don't really apply to our example, so skip steps two, three, and four by clicking the Next button three times. As we are not going to modify the salutation, the wizard also should skip automatically step five.

You should be on step six of the Mail Merge Wizard. If you are ready

eight steps, because we already have our template complete, most of the steps are skipped. In the first step, we need to select the Start from existing document and then select our template. Click the existing document option, then click the Browse button (Figure 11). When the

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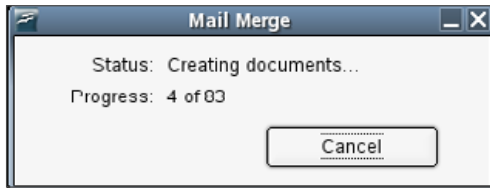


Figure 12. Creating the Merged Document

to complete the merge process, click the Next button. This starts the process to create the merged document. As shown in Figure 12, you should see the wizard process all of the records contained in your table. Now, your merged document is ready. If you like, you can personalize this document, but for the purposes of our example, it is not necessary. Click the Next button to advance to the last step of the wizard.

Because our merge is already complete, we can take advantage of this and save the merged document. First, select the Save merged document option, and then select the Save as single document (Figure 13). Click on the Save Documents button, and the wizard saves the document and finishes.

Although it didn't use much of the Mail Merge functionality, this simple example provides a brief glimpse of the potential of the new wizard. When you combine this new wizard with the ability to create a database that connects to common contact resources, such as Evolution and Groupwise, the power available from the new OpenOffice.org becomes even more impressive.

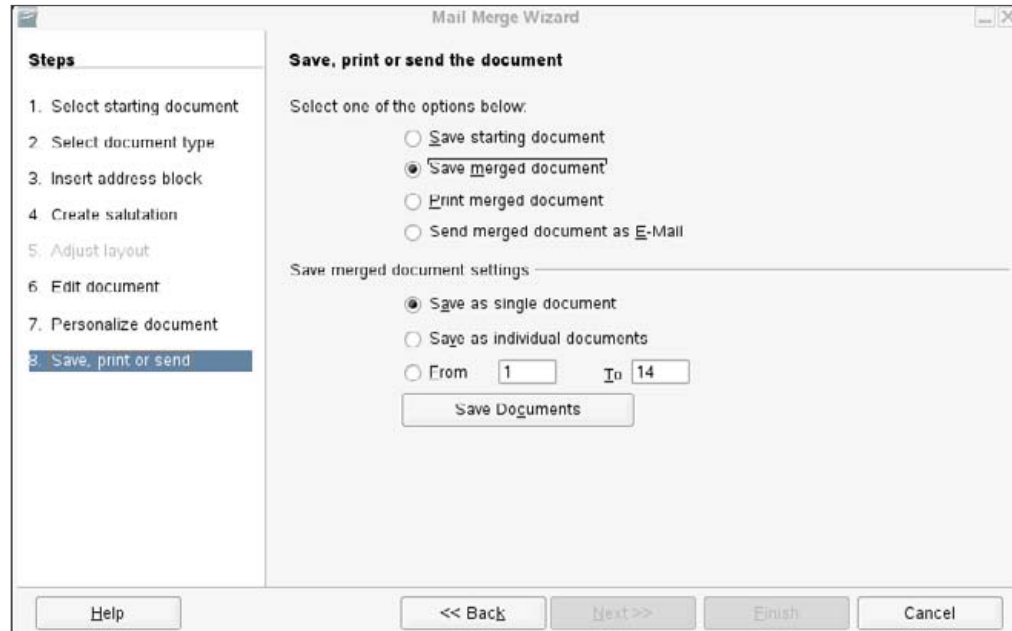


Figure 13. Save Document Step

## CONCLUSION

To be honest, for me, the new database reports, database source browser and the database merge functionality seem immature—almost as if they were not quite finished. There are some funny little quirks with the reports, such as always having the first page blank when grouping by a data field and the relatively sparse ability to modify a report template easily, to name a few examples. In addition, now that we have walked through a sample mail merge, did it occur to you that the mail merge should be more tightly coupled with the report functionality? If I define a new database connection, why

do I have to complete two separate functions to merge my data? Shouldn't I be able to integrate the ability to create a merge template from within the report functionality?

In defense of OpenOffice.org, I may not be using the new data merge functionality as originally designed. However, after several frustrating hours trying to follow the OpenOffice.org Help while under pressure to get my name tags printed, I was satisfied simply to get the mail merge working. I imagine as more users pound on these new features and collaborate with the OpenOffice.org developers, the usability of OpenOffice.org will only get better. ■



Kevin Shockey is Editor in Chief of TUX.



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# Customizing KDE with KDE-Look.org

With the help of KDE-Look.org, Jes Hall reveals her productivity secrets and explains how to add a little “tszujing” to KDE.

JES HALL

I’m sure KDE’s ability to be customized almost infinitely is the reason I don’t yet rule the world. If I could only take the time and energy that goes into hunting for the cutest wallpapers, downloading icon themes, installing mouse cursor sets—and channel it into study or work—I’m quite certain I’d be a star pupil or model employee. As it is, many days when I should be doing something more productive, I find myself time and time again visiting that themer’s treasure trove, KDE-Look.org (<http://www.kde-look.org>).

The KDE Control Center puts a dazzling array of configuration options in one convenient location. In the Appearance & Themes section are the modules controlling all aspects of the look and feel of your KDE desktop. Here you can install and configure wallpapers, icon themes, color schemes and much more. KDE-Look.org provides a place for users to share the customizations they have made.

## WALLPAPERS

With KDE 3.4 came Get Hot New Stuff, a simple way of downloading user-contributed data for applications. In addition to the selection of artwork that comes with a KDE installation, KDesktop makes use of this new technology to streamline searching for and installing new desktop wallpapers from KDE-Look.org. Open the KDesktop configuration dialog by right-clicking on the desktop and selecting Configure Desktop... from the context menu. The dialog that appears shows your current desktop background settings. Beneath the picture of the computer monitor on the right, click on Get New Wallpapers.

In the Get New Wallpapers dialog, click on any image thumbnail to see more detailed information for that image. Once you’ve found an image you want to download, simply click Install. The image is downloaded and installed. After exiting the Get New Wallpapers dialog, you can set your new image as the desktop background by selecting it from the Picture drop-down box in the KDesktop configuration dialog, under Background. If you already have an image saved to your hard disk that you’d like to set as the desktop

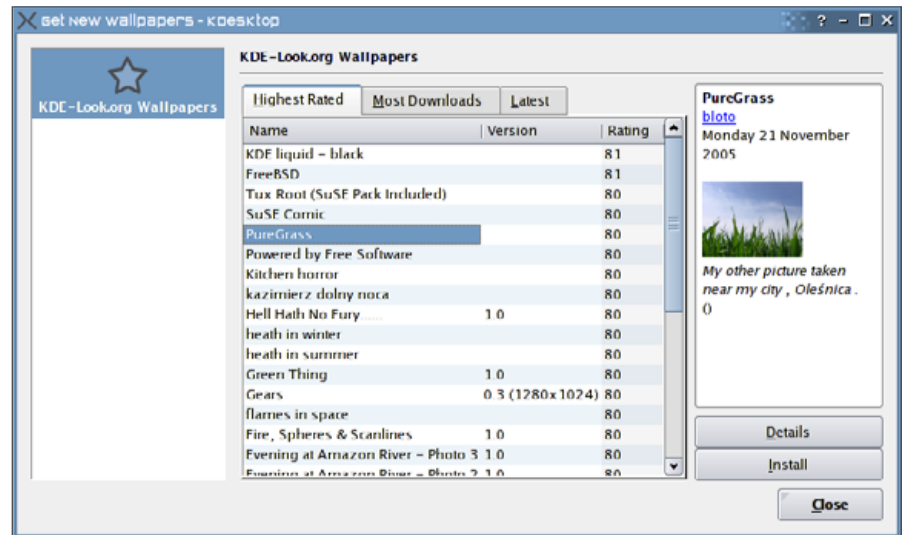


Figure 1. The Get New Wallpapers dialog

wallpaper, that’s even easier. Simply navigate to where you’ve stored the image in Konqueror and drag and drop the image to the desktop. In the context menu that appears, select Set As Wallpaper.

## ICON THEMES

Icon themes are a popular and striking way of changing the look of your KDE desktop. Download icon themes from the Icons section of KDE-Look.org. To install an icon theme you’ve downloaded, fire up the KDE Control Center. Under Appearance & Themes, select Icons. Click on Install new theme at the bottom of the dialog, and either navigate to the location

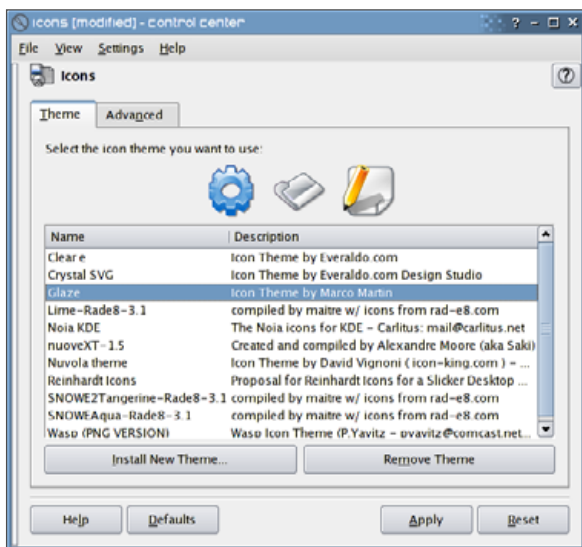


Figure 2. The Icons Dialog

where you downloaded the icon theme by clicking on the small folder icon to the right of the text field, or drag and drop the icon theme archive into the text field from a Konqueror window. Click OK, and KControl installs your theme. This step sometimes can take as much as half a minute, as a large number of small icon files are being extracted and copied to a new location. Once finished, you can load your new icon theme by highlighting its name in the list of installed themes and clicking Apply. Keep in mind that not all files listed on the KDE-Look.org icons section are complete themes able to be installed in this way. Carefully read the entry's description and any user comments to help distinguish which are complete themes and which not. Once you've installed the icon theme, you're free to delete the theme archive you downloaded.

## COLOR SCHEMES

KDE comes with a wide variety of color schemes, and the colors section available at KControl→Appearance & Themes allows you to select a scheme, modify existing schemes and install new schemes. To install a scheme you've downloaded from KDE-Look.org, click Import scheme. Navigate to where you have downloaded the scheme file or the archive containing it, and click OK. Your new color scheme is now selectable in the list of installed schemes. Once you've installed a color scheme, you can delete the color scheme file or archive you downloaded. You also can create your own personalized schemes by highlighting a scheme you'd like to modify and customizing the color values for various interface elements in the Widget Color drop-down box to the right.

Hint: the color preview image at the top of the dialog is clickable. To change the title bar color, you can click on the title bar in the preview image and then on the small color swatch underneath the Widget Color drop-down box that represents its current color value. This brings up the color chooser dialog where you can select a new color for this widget.

## MOUSE CURSORS

There is a wide range of X11 mouse cursor themes available for download on KDE-Look.org, and KControl provides a nice interface for installing and applying mouse cursor themes, although it's pretty well hidden. To install a cursor theme you've downloaded, open KControl and go to Peripherals→Mouse. (Oh sure, I hear you say, that's just so logical.) The second tab—cursor theme—is where we manage our mouse cursor themes. Click Install new theme, and navigate to where you downloaded the mouse cursor theme

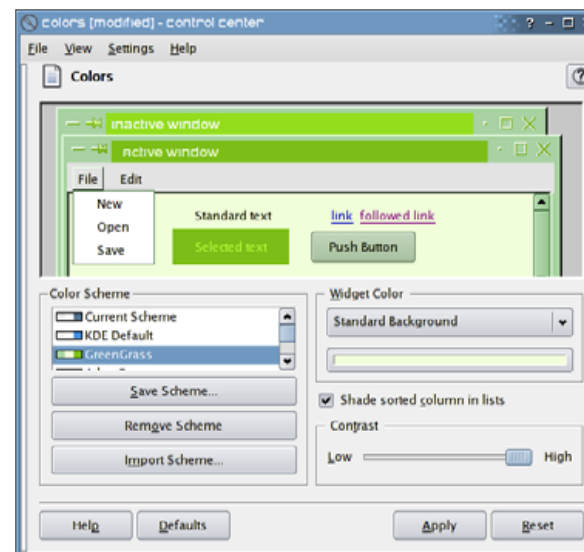


Figure 3. The Colors Dialog

archive. Once you've selected it, click OK. Select your new theme from the list of installed themes, and click apply. You'll need to restart KDE before these changes take effect. Once you've installed the mouse cursor theme, you can delete the archive you downloaded.

## SPLASH SCREENS

A splash screen is the progress meter that appears when you log in to or start KDE. Generally, each distribution brands its KDE packages with its own artwork as the splash screen. To install a new one, once you've selected a splash screen you like from KDE-Look.org and downloaded it to disk, launch KControl and go to Appearance & Themes→Splash Screen. Click the Add button, and navigate to where you've downloaded the splash screen archive. Once you've selected the



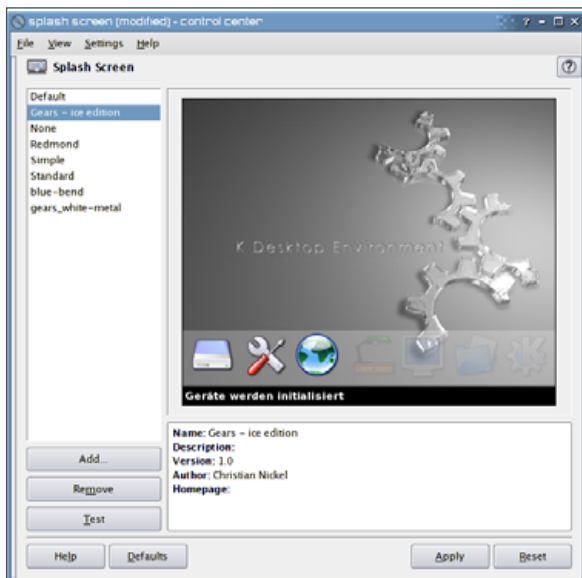


Figure 4. The Splash Screen Dialog

archive file, click OK. Your new splash screen should appear in the list of available splash screens. To see what it will look like without having to restart KDE, click Test. Once you've finished installing the splash screen, you can delete the archive you downloaded.

## THEMES

Once you have your KDE desktop looking exactly how you like it, you can save the settings as a coherent theme in KControl→Appearance & Themes→Theme Manager. This lets you save groups of favorite settings and switch between them quickly and easily.

With KDE, your imagination is your only limit. Once you've created your masterpiece, you can share screenshots and discuss all aspects of

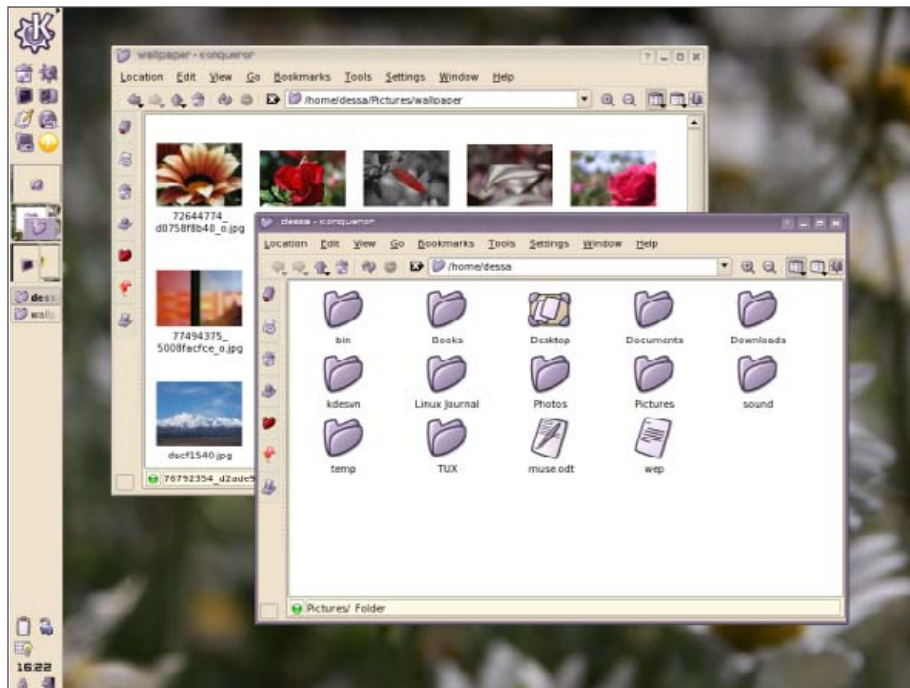


Figure 5. Share screenshots on KDE-Look.org to show off your customizations.

KDE's customization with other KDE themers by creating a free account on KDE-Look.org. You'll all have to excuse me now—I need to go make sure this article is handed in on time, or Kevin will know what to blame! ■

## WHERE DOES KDE PUT MY THEMES ONCE I'VE INSTALLED THEM?

- Icon themes: `~/.kde/share/icons`
- Color schemes: `~/.kde/share/apps/kdisplay/color-schemes`
- Splash screens: `~/.kde/share/apps/ksplash/Themes`
- Mouse cursors: `~/.icons`
- Wallpapers: `~/.kde/share/wallpapers`



Jes Hall is a UNIX systems consultant and KDE developer from New Zealand. She's passionate about helping open-source software bring life-changing information and tools to those who would otherwise not have them.

# Customizing GNOME

Dee-Ann LeBlanc explains how to tweak the GNOME desktop with the assistance of GNOME Art.

DEE-ANN LEBLANC

The GNOME desktop (<http://www.gnome.org>) is, in a way, KDE's obnoxious over-achieving younger brother. Though this desktop environment hasn't been around for as long as KDE has, it's reached the same level of stability and has its own strong base of fans. For those more familiar with other operating systems or KDE, GNOME's top and bottom panel setup might take some getting used to. However, this setup is a great way to take advantage of available space with lots of panel icons. Figure 1 shows the reference release of GNOME 2.12, a live CD people can download to see what the very latest version looks like, without having to install anything (you can get it by going to <http://www.gnome.org/start/2.12>).

## A TOUR OF CONFIGURATION OPTIONS

For those who enjoy tweaking their GUI, the menu of most interest is the farthest to the right, and is named either System or Desktop, depending on which version of GNOME your distribution uses. (Through the rest of this article, I refer to the System menu; substitute Desktop if needed in its place.) By going to System→Preferences, you can find all of the user-level configuration options. System→Administration contains those available for administrators. Table 1 shows what you will find in each of these menu options, as I don't have the space to go through all of them thoroughly. The options listed correspond



Figure 1. The reference version of GNOME 2.12—your distribution's version of GNOME will look slightly different.

directly to those available on the GNOME 2.12 live CD. Your distribution may have a slightly

different layout and may offer different GUI configuration options.

Table 1. GNOME Configuration Menu Options

Location	Purpose
<b>System→Preferences→</b>	
<b>About Me</b>	Enter e-mail, phone, IM, Web and physical contact information. Also allows you to change your password.
<b>Assistive Technology Support</b>	Enable GNOME features designed for those with limited mobility or sight.
<b>Desktop Background</b>	Alter your desktop's current background. Also accessible by right-clicking the desktop and choosing Change Desktop Background from the context menu.
<b>File Management</b>	Specify how Nautilus (the GNOME file manager) presents files to you and how you interact with them.
<b>Font</b>	Change the fonts, sizes and font properties for applications, your desktop, your window title bars and in command-line terminals.
<b>Keyboard</b>	Change your keyboard's responsiveness, layout, accessibility features for those with limited mobility, and even to enforce typing breaks on a regular basis.
<b>Keyboard Shortcuts</b>	Assign what will happen when you press certain keys or key combinations.
<b>Login Photo</b>	Set a user avatar for use in the login screen. Available in some versions of GNOME 2.12—if you don't have this menu option, see System→Preferences→About Me, and click the image in the upper-left corner of the resulting window.
<b>Menus &amp; Toolbars</b>	Set how the menus in your GUI will behave. This is not the same as changing menu content.
<b>Mouse</b>	Configure your mouse's behavior, responsiveness and which hand can use it.
<b>Multimedia Systems Selector</b>	Tell the system what engines it should use for sound and video. May be located in a More Preferences submenu.
<b>Network Proxy</b>	Set up what proxies to use for those whose system administrators do not allow them direct access to the Internet.
<b>PalmOS Devices</b>	Configure your system's interaction with devices using PalmOS. May be located in a More Preferences submenu.
<b>Preferred Applications</b>	Tell your system which Web browser, e-mail client and terminal program to open by default. May be located in a More Preferences submenu.
<b>Remote Desktop</b>	Configure whether the ability to view and use your desktop remotely is allowed, and how secure it should be.
<b>Removable Drives and Media</b>	Define how various multimedia issues are handled, such as whether CDs are automatically loaded by the operating system when you place them in the drive.
<b>Screen Resolution</b>	Alter your screen resolution and refresh rate.
<b>Screensaver</b>	Configure which screensaver to use, if any, and its behavior.
<b>Sessions</b>	Configure the GUI's behavior when you log in and out, including which programs to start automatically, if any.
<b>Sound</b>	Configure what kind of sounds are used by your system, and when.
<b>Theme</b>	Select and edit your desktop theme.
<b>Windows</b>	Set how your windows react when interacted with.
<b>System→Administration→</b>	
<b>Login Screen Setup</b>	Define how your GUI login screen behaves. Available only in some distributions.

## CONFIGURING YOUR BACKGROUND

A popular facet of the desktop that people often want to customize is the desktop background. As you see in Table 1, selecting System→Preferences→Desktop Background, or right-clicking the desktop and choosing Change Desktop Background from the context menu, opens the Desktop Background Preferences dialog (Figure 2).

In the upper list box, select either No Wallpaper, if you want only color(s) in the background, or scroll through the list to find a wallpaper you like. For those who want to use wallpaper, if you have an image you want to use that isn't in the list, you can add it. Click the Add Wallpaper button to open the Add Wallpaper dialog, browse to the image's location, select the image you want to use, and then click the Open button. Once you have your wallpaper selected, the Style button lets you choose whether you want the wallpaper to stretch if necessary to take up the whole screen (Fill Screen), to be centered at its original size and then surrounded by a desktop color of your choice (Centered), to be stretched until it hits either the top and bottom or right and left edges of the screen and no more (Scaled) or to be repeated at its original size (Tiled).

If you chose No Wallpaper or have bare desktop showing, you might want to change the colors. First, go to the Desktop Colors button and decide whether you want the screen to be one color (Solid Color) or a shifting of one color into another (Horizontal Gradient for a gradient across the screen or Vertical Gradient for a top-to-bottom gradient).

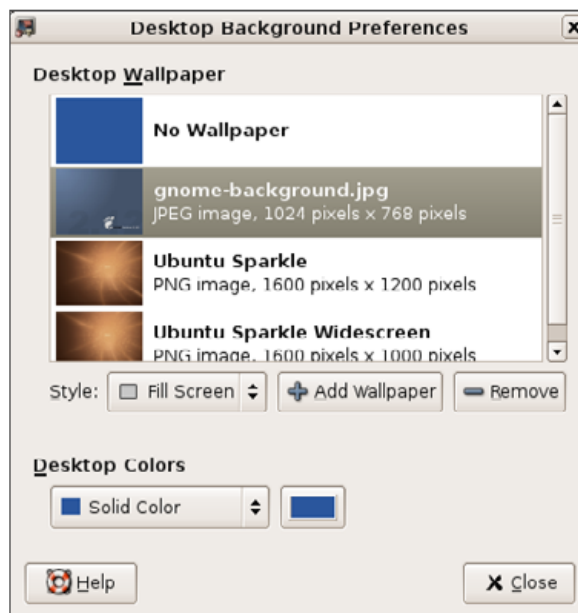


Figure 2. The GNOME Desktop Background Preferences dialog.

Depending on your choice, you will have either one (solid) or two (gradient) color buttons. When you click one of these buttons, the Pick A Color dialog appears (Figure 3). If you know how to use the text boxes to enter the color, do so. Otherwise, start your selection by clicking on the wheel around the triangle and dragging until the color you want is included within the triangle. Now, click and drag inside the triangle until the color you want is displayed in the right-hand portion of the box below. Those who have an image open containing a color they want to use can instead click the eyedropper icon and then click

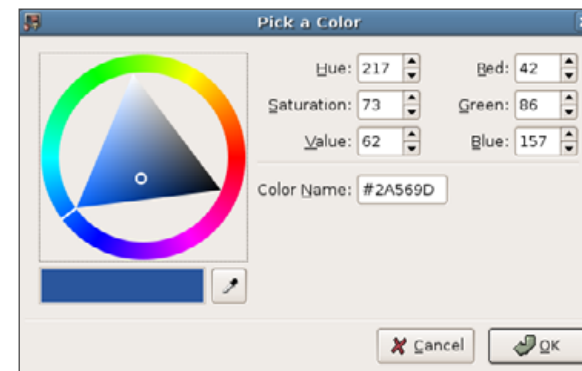


Figure 3. When your color properly appears, click OK, and proceed to the second color box if you have one.

and drag on the image until the desired color appears in the box's right side.

## GETTING FANCIER

If you want to get fancy, go to <http://art.gnome.org>. Here you will find backgrounds, a variety of themes and more. The Tutorials section is slowly being filled out, the FAQ answers many questions you may have, and the Forums section provides people you can talk to if you need help. Other cool sites are GNOME-Look.org (<http://www.gnome-look.org>) and <http://themes.freshmeat.net>. ■



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# Pimping the Fox

An introduction to customizing Firefox with Extensions and Themes.

DANIEL BARTHOLOMEW

Firefox is arguably the best browser out there; however, default Firefox is kind of plain. It does not have to be though. Firefox is extensible and themeable, both of which are fancy ways of saying 1) you can install extensions that add new features to Firefox, and 2) you can install themes that change the way Firefox looks.

I'm sure you've seen those shows where people take a piece-of-junk car and in five commercial breaks and 60 minutes turn it into a work of art. Well, you can do the same to Firefox, but it won't cost you your child's inheritance to do it, and it will take less time—you can even do it during the commercial breaks.

Firefox is everywhere these days. It is included with virtually all Linux distributions, and packages for it are readily available from <http://mozilla.com> and your Linux distribution's software package repository. You probably used Firefox to download this issue of *TUX* that you are reading right now.

One thing to warn you about though is that some of the extensions and themes I'm going to be talking about won't work with anything less than Firefox version 1.5. Most mainstream Linux distributions are on a yearly or twice yearly release schedule, and so they may not have the most current version. To check which version you have, go to the Firefox Help menu and choose About Mozilla Firefox.

If you find you are using a version less than 1.5, go to <http://mozilla.com> and click on the big Download Firefox button. This downloads a file called `firefox-1.5.0.1.tar.gz` or something similar. Open the file in your archive manager, usually simply by clicking or double-clicking it, and drag the `firefox` folder to your desktop. Open the `firefox` folder, and look for a file called `firefox`. Run this script, again simply by clicking or double-clicking on it, and you will be running the latest version.

Firefox comes standard as a capable, user-friendly browser. But, it can be so much more! I mean, yes, capable and friendly are good and all, but what about exciting or fun? The first stop we need to make is at the Extensions

Manager. Go to the Firefox Tools menu, and click on Extensions.

Extensions are little bits of computer code that extend or change the way a program works. Think of them as under-the-hood improvements. The default install for Firefox 1.5 includes two extensions: Talkback, which gives Firefox the ability to send crash reports to the Firefox developers at Mozilla.org, and DOM Inspector, which is probably very useful to those who understand what it does. I ignore both of them. We definitely need to add some more exciting extensions here. Click on the Get More Extensions link in the lower-right corner of the Extensions Manager window to go to the Firefox extensions Web site.

With more than 1,000 extensions from which to choose, it may seem hard to distinguish the good (<https://addons.mozilla.org/extensions/moreinfo.php?id=398>) from the hilarious (<https://addons.mozilla.org/extensions/moreinfo.php?id=507>) from the stupid (<https://addons.mozilla.org/extensions/moreinfo.php?id=451>).



Figure 1. Before: Firefox, Fresh from the Factory



Figure 2. The Firefox Extensions Window, Almost Empty

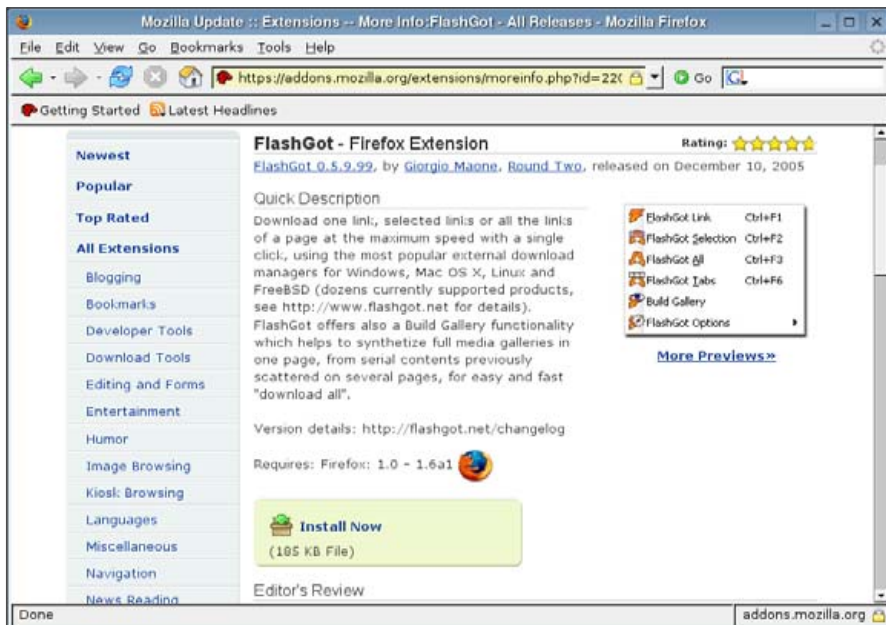


Figure 3. Ready to Install the FlashGot Extension

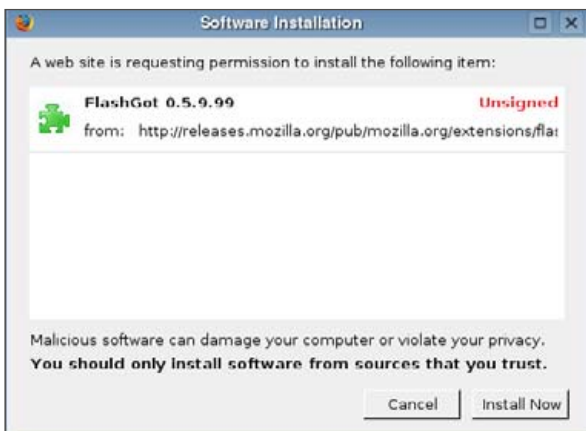


Figure 4. Installing the FlashGot Extension

Okay, so my distinction between what is hilarious and what is stupid is questionable, but let's just say that there are a lot of "interesting" extensions out there. You'll find the best by clicking on the Popular and Top Rated links in the left sidebar of the Extensions site.

For our first extension, let's install FlashGot (<https://addons.mozilla.org/extensions/moreinfo.php?id=220>), a very popular and useful extension for downloading single or multiple files from a Web page in one click.

From the FlashGot page, click on the Install Now link to bring up an installation window. You might have to wait for a little countdown timer to finish. When it does, click the Install Now button to install the extension.

Take another look at the Extensions window, and you'll see that FlashGot will be installed when Firefox is restarted.

This insistence on restarting is the most annoying part of

installing extensions and themes. I hope in the future, developers will figure out a way to avoid restarts. Until then, they are a way of life when installing Firefox add-ons. Restart Firefox, click on the Tools menu, and you will see a new FlashGot entry, complete with a nifty lightning-bolt icon.

Right-click on a link, and you will see that FlashGot is there too.

We've gotten started by customizing our browser, and FlashGot is certainly nice, but extensions can do so much more. I've put together a list of six of my favorite extensions. These will add several useful features to Firefox and turn your boring browser into a custom-built Web cruiser. My



Figure 5. FlashGot is now installed, or will be, after we restart Firefox.

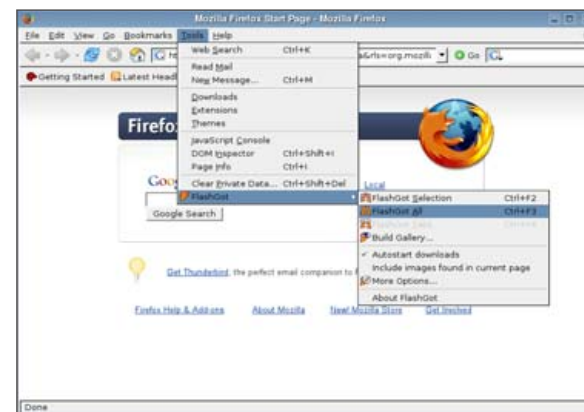


Figure 6. The Tools→FlashGot Menu

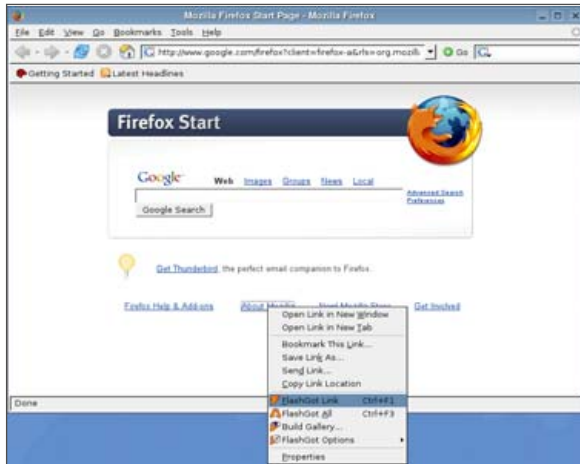


Figure 7. The FlashGot Contextual Menu

favorites include:

- FlashGot: <https://addons.mozilla.org/extensions/moreinfo.php?id=220>
- Colorful Tabs: <https://addons.mozilla.org/extensions/moreinfo.php?id=1368>
- Forecastfox: <https://addons.mozilla.org/extensions/moreinfo.php?id=398>
- FoxClocks: <https://addons.mozilla.org/extensions/moreinfo.php?id=1117>
- FoxyTunes: <https://addons.mozilla.org/extensions/moreinfo.php?id=219>
- Greasemonkey: <https://addons.mozilla.org/extensions/moreinfo.php?id=748>

We've already talked a little about FlashGot, so let's move on to Colorful Tabs. Colorful Tabs does exactly what it says, it makes your tabs more colorful. Instead of every tab being the same (boring) gray, each tab will be colored differently. This improves Firefox's usability, especially when you have a lot of tabs open.



Figure 8. Colorful Tabs in Action

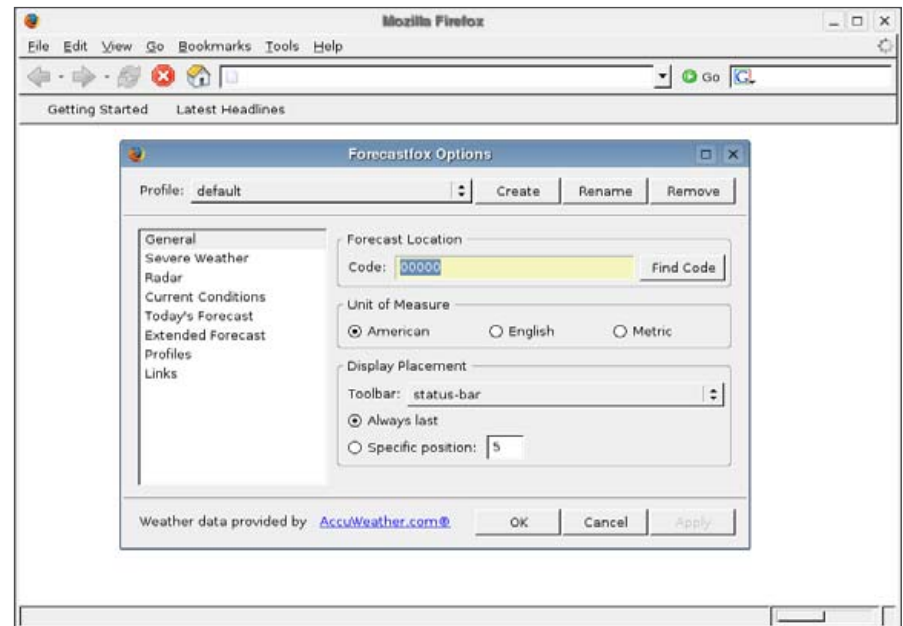


Figure 9. The Forecastfox Options Window

Forecastfox puts a custom weather forecast into your Firefox status bar, or whichever toolbar you prefer. After installing the extension and restarting



Figure 10. Mouse over one of the forecast icons to get a helpful forecast.

Firefox, it prompts you to enter a location code. You either can put in your postal code or click Find Code to search by city or country name. You also can customize how the current conditions are displayed and even choose to rotate through forecasts and current conditions for several locations. Play around with it until you find settings to your liking.

FoxClocks is another informational extension, but instead of weather, it focuses on time. It can display multiple clocks in the status bar, a toolbar or in the menu bar for any of hundreds of cities around the world. Now you can know at a glance what time it is for Dad in Dubuque, Marge in Melbourne and Sid in Singapore.

Have you ever been listening to music while surfing the Web and needed to switch tracks, or lower the volume or pause the music? Instead of having to switch to your music player, you can do it all from inside your browser, thanks to FoxyTunes. This handy extension can control several of the more popular Linux audio players, including amarok, Rhythmbox and XMMS. By clicking on the little arrows, you can choose to display or hide the currently

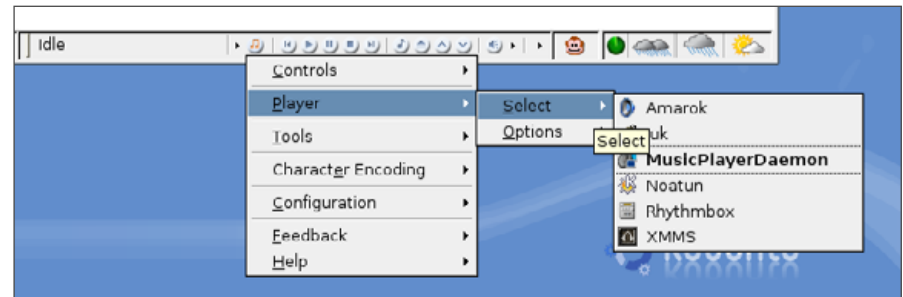


Figure 11. Selecting My Preferred Audio Player for FoxyTunes

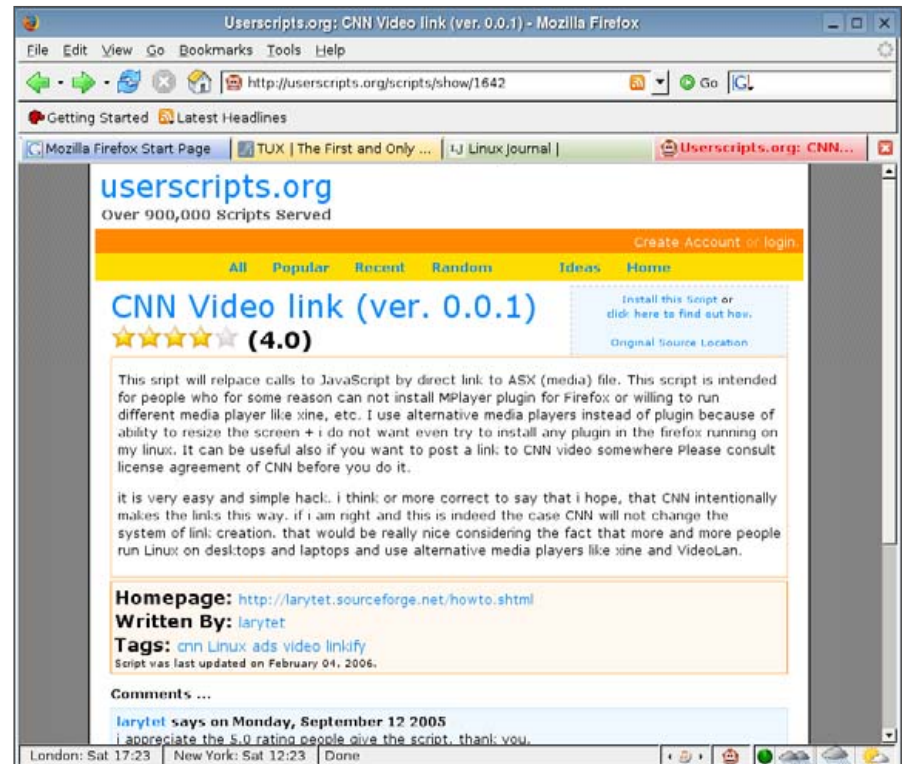


Figure 12. Ready to Install a Greasemonkey Script



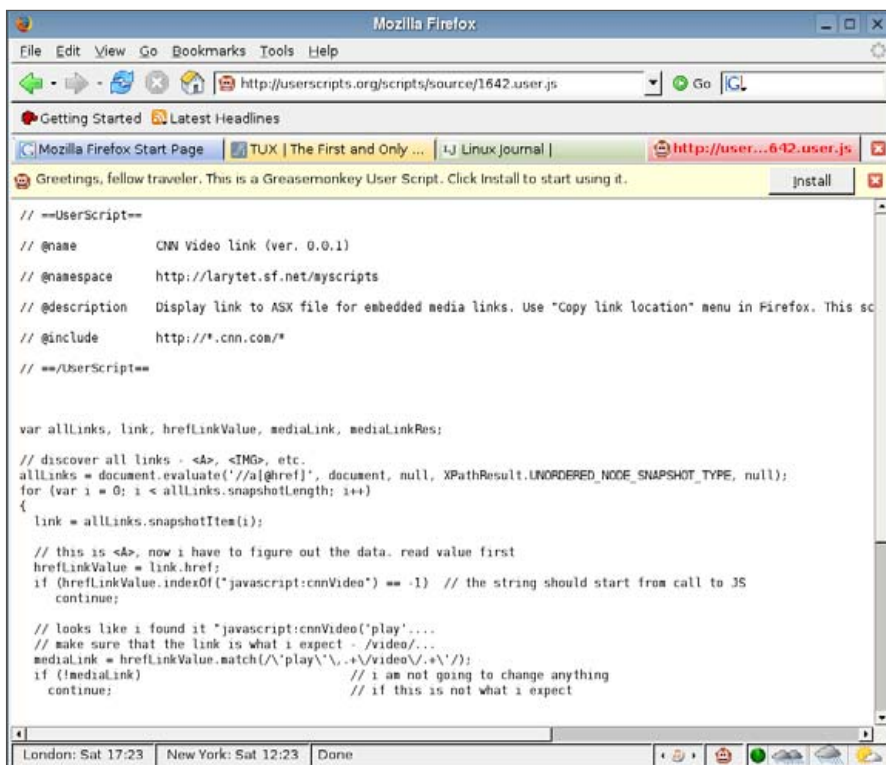


Figure 13. Simply click on the Install button to install the script.

playing song, or use the controls to pause, play and skip tracks, or change the volume.

The last extension I want to share is also the most versatile.

Greasemonkey lets you install thousands of scripts that actually change the Web sites you visit. After installing Greasemonkey, you'll see a little monkey head in your status bar. You can left-click on it to enable or disable Greasemonkey and right-click on it to bring up a menu with a link to the script manager.

To install Greasemonkey scripts, go to <http://userscripts.org> and locate the script you want to install. There are scripts of every shape and variety. Some can remove ads, others can add new features, and some simply speed up sites. As an example, let's install a script that makes it easier to view videos

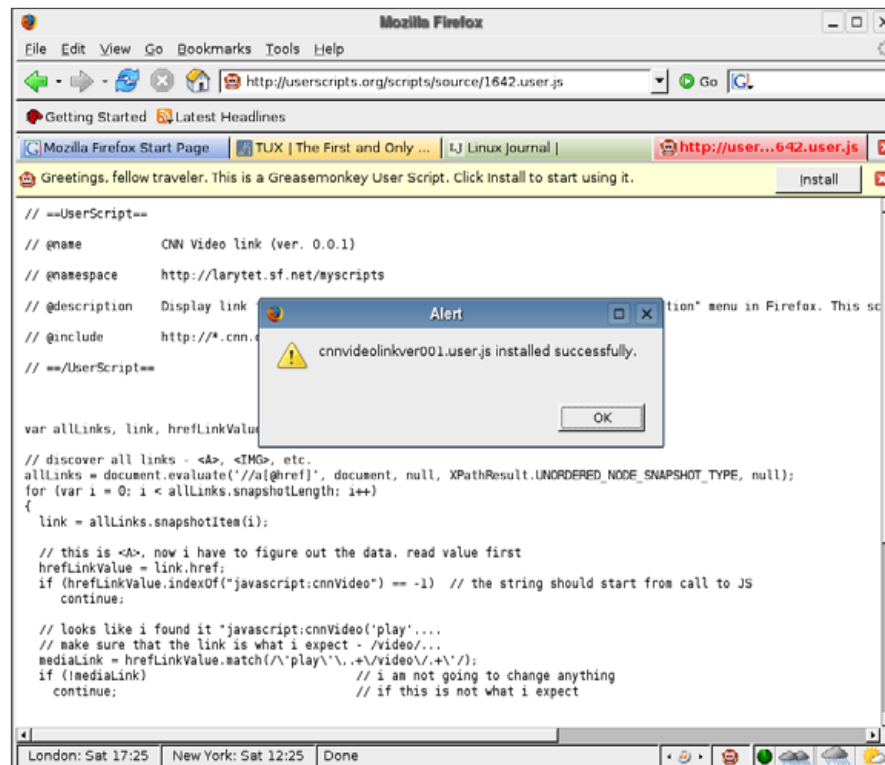


Figure 14. The Greasemonkey script is now installed and ready to use.

from CNN.com. Navigate to the script description page, and click on the Install this Script link.

You then will see the script in all of its JavaScript glory. You also should see a little info bar at the top of the window with an Install button. Click it, and you should receive almost instant confirmation that the script was installed.

Now when I go to CNN.com and click on a video link, the video opens directly in my preferred video application instead of in its embedded on-line player. But, this simple little script is only a beginning; <http://userscripts.org> claims to have more than 900,000 scripts available, with more added all the time. Granted, many of them will not be useful to you, but you are almost guaranteed that some of them will be. Entire categories are devoted to pop-



Figure 15. The Firefox Themes Window. Almost Empty

and safe. Sometimes I like safe. Sometimes safe is good. But safe can get boring. This is a browser we're talking about here, one of the most heavily used applications out there. It should be fun to use and nice to look at.

Go to the Firefox Tools menu and click on Themes. This opens the Themes window, which, if you haven't yet installed a theme, will have only one entry, the Firefox (default) theme. Yes, the default Firefox paint job is just another theme. About the only difference between it and other themes, apart from the way it looks, is that this theme is the only one that can't be removed.

Click the Get More Themes button to open a window to the Firefox themes Web site. At the time of this writing, about 150 themes are available from which to choose, with more being added all the time. They range from simple to elegant to tacky and everything in between. As is the case with extensions, you can quickly find a lot of high-quality themes by utilizing the Popular and Top Rated buttons in the left-hand menu bar of the Themes Web site.

Installing a theme is much like installing an extension. Let's try the BlackJapan (<https://addons.mozilla.org/themes/moreinfo.php?id=1390>) theme as an example. From the BlackJapan description page, click the Install Now link, click OK to the pop-up confirmation dialog, and the theme should be downloaded and installed automatically. Switch to the Themes window,

ular on-line destinations like Google, Amazon, del.icio.us, Flickr and Gmail. Spend some time on the site and experiment with some of the scripts, and you'll soon wonder how you survived without it.

Now that we have made some under-the-hood improvements to how it operates, let's give Firefox a new coat of paint. Don't get me wrong, the default look is very nice. It's clean, uncluttered, functional

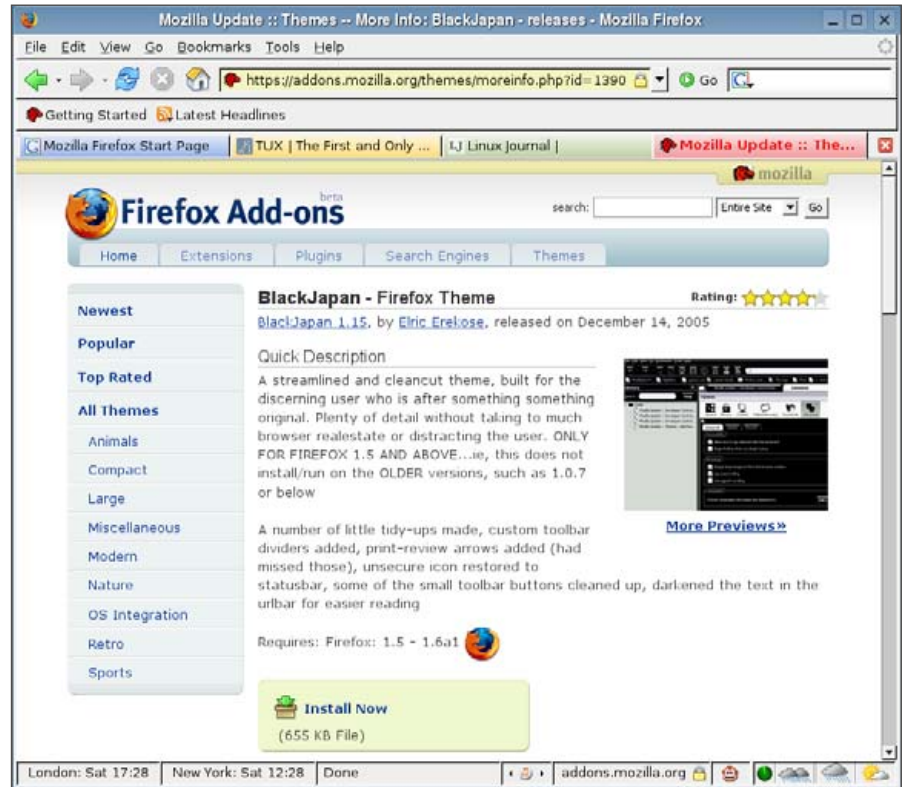


Figure 16. Ready to Install the BlackJapan Theme



Figure 17. Installing the BlackJapan Theme

and select it, and then click the Use Theme button. Restart Firefox, and revel in BlackJapan's dark beauty.

Tastes vary widely, so you may have to experiment with several themes



Figure 18. The BlackJapan theme is installed.

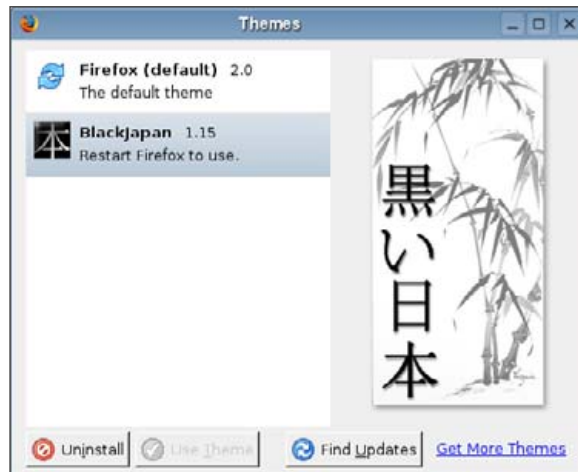


Figure 19. Restart Firefox to use BlackJapan.

before you find one that fits. However, in the spirit of pimping Firefox, I suggest the tacky, over-the-top goodness of Pimpzilla (<https://addons.mozilla.org/themes/moreinfo.php?id=1542>). Shag carpeting, fuzzy dice and lots of bling combine with the extensions installed earlier to provide a browsing experience like no other. Check it out.

Now, get out there and make Firefox *yours*. ■

Daniel Bartholomew has been using computers since the early 1980s when his parents brought home an Apple IIe (with an 80-column card!). After stints on Mac and Windows machines, he discovered Linux (Slackware) in 1996 and has been using various distributions ever since. He lives with his wife and children in North Carolina.

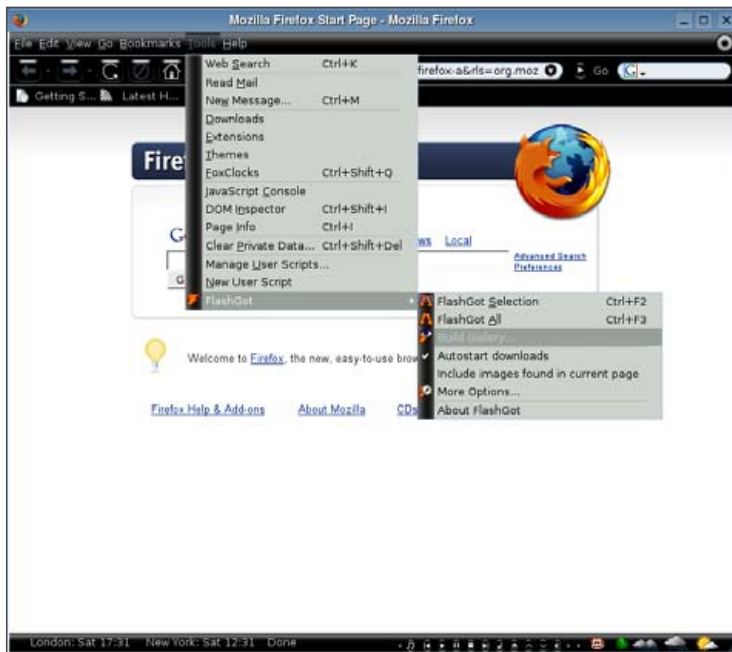


Figure 20. The BlackJapan Theme in Action



Figure 21. After: Colorful Tabs, FoxClocks, FoxyTunes, Forecastfox and Greasemonkey Having a Party in Pimpzilla

# Nokia 770

If you are looking for a convenient, easy-to-use PDA that's also Linux-based and open-source powered, this is the handheld for you.

KEVIN SHOCKEY

Even though it is the first generation of the Nokia 770, I found the Nokia 770 Internet Tablet so easy to learn that it should receive wide acceptance from the general public. It is simple to use, expandable and has the best browsing experience I've seen in a mobile PDA. This browsing experience is enhanced by the 770's high-resolution 800x480 touch screen, capable of displaying 65,536 colors. This device is made purposefully to appeal to the mobile user, and it excels in providing an outstanding user experience.

A few years ago, a colleague tried to convince me that a Palm-based handheld mobile device could roughly replace a laptop computer. In general, I agreed with him, but asserted that it would be a challenge to pull it off. With the Nokia 770, the more I played with it, the more I became convinced that this might be such a laptop-replacing product. For most laptop users, the key features are e-mail, browsing, blogging, writing and occasionally presenting. With the exception of sending an external video signal to a computer projector, I really believe that everything else might be possible with the Nokia 770. Because the browsing experience is landscape, it is comparable to a laptop (unlike phones or other handhelds); add in an external wireless Bluetooth keyboard and some extra Flash memory, and you have a lightweight, responsive, easy-to-use laptop replacement.



Figure 1. Nokia 770

## THE BASICS

The Nokia 770 Internet Tablet uses the Internet Tablet 2005 software, which is a Linux-based Debian derivative. Out of the box, the base system provides a wide variety of applications, including an Opera-based browser with pre-packaged Macromedia Flash player capabilities. In the next section, I explain the Nokia 770's browsing experience in more detail.

To complete the Internet-based set of tools, the 770 also has an e-mail client, RSS news reader, PDF viewer and various media players. To use these tools, you have to connect to the Internet. The 770 provides connectivity through 802.11 b/g and Bluetooth. However, this is assuming that your phone provides broadband access and supports Bluetooth connectivity. The default choice for connecting to the Internet, without configuring addi-



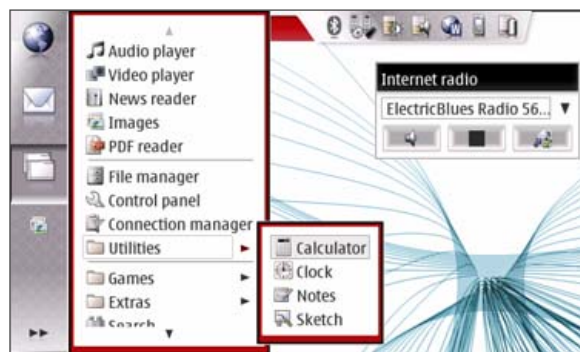
**Figure 2. Easy Access to News, Radio and the Web from the Home View**

tional connectivity alternatives, is wireless LAN.

Setting up access for my wireless network was simple. A wizard steps you through the process. The 770 can scan for wireless connections and displays the results of the networks found, the strength of the signal and the security level of the network.

Upon booting, the 770 displays the home view. The home view is a dashboard of sorts that provides the ability to display various dialogs, including Internet radio, Clock, News and a Web shortcut. As you might expect, the Internet radio lets you stream an Internet radio station to your 770. It includes basic controls that are simple to use. If you're looking to add some different stations, I'd recommend following along with the user guide. The process was not intuitive, but it was possible with help from the user guide. The clock is, well, a clock. Click on the clock display to access the clock configuration window.

The News window displays the latest news posts from the news reader. Of course, you must add feeds to the news reader before this window becomes operational. If you're familiar with tradi-



**Figure 3. The Task Navigator, Other Applications and Utilities Menus**

tional RSS readers, you will be able to get this going easily. The Web shortcut dialog provides a nice one-click access to a favorite Web page. Once enabled, you can configure the Web shortcut from the home-view menu, Web shortcut details option. You can use your choice of images to go along with your favorite Web address. Figure 2 displays a fully configured home view.

The remainder of the functionality of the 770 is provided by accessing the other application buttons. Along the left-hand edge of the screen runs the task navigator. With no applications running, three icons are present. The topmost icon provides access to the Web browser. The second icon provides access to the e-mail client, and the bottom icon provides access to the other application menus. This menu includes a menu option for just about every feature of the 770. There are three submenus: Utilities, Games and Extras. The Extras submenu holds any optional software you might install. Figure 3 displays the task navigator on the far left, the other applications menu and the utilities menu.

## BROWSING THE WEB

Despite the fact that we are all now used to browsing the Web with 17" or 19" monitors, browsing the Web with the 770 is still an enjoyable experience, as illustrated by Figure 4. Clicking on the globe from the Task Navigator gives you the option to open a new browser window, manage bookmarks or select a specific bookmark. If you want to enter a new URL, click on the address field and type in or paste the new address. It took me a while to figure out, but don't worry about typing in `http://` before the address. Simply add the address and click on the Go button. The browser fills in the missing part.

If the site you are visiting contains content that needs the Flash player, the 770 comes pre-installed with a version 6-compatible Flash player. I couldn't resist trying it out, so I headed over to `http://homestarrunner.com` to get a fix of Strong Bad reading some e-mail. Although it was a bit difficult to hear without plugging in some headphones, after switching to full-screen mode it looked pretty decent.

Although the 770 does a great job of playing Internet radio, I had problems getting it to play



**Figure 4. The Opera Web Browser**



**Figure 5. The Nokia 770 with the Flash-Enabled Browser**

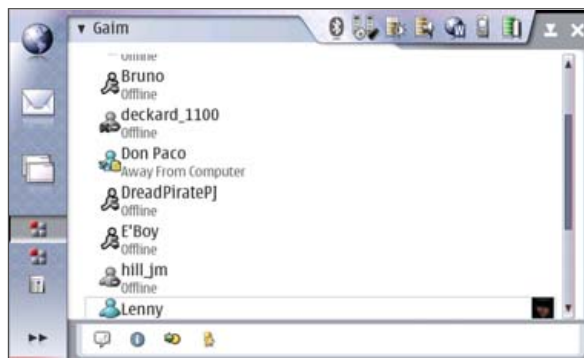
other music files when I went looking for them on the Web. In some cases, it was unable to locate a matching plugin and others were just not supported. It seems that the best way to hear audio files is to download them.

### ADDING SOFTWARE

Even though the 770 is relatively new, a decent selection of additional applications is already available. When Nokia announced its plans to build the 770 back in June 2005, it also announced the creation of the open-source maemo development platform. Initially, Nokia offered discount units for developers, and it seems those efforts have been successful.

If you head over to <http://maemo.org/maemowiki/ApplicationCatalog>, you will see a growing list of applications built specifically for the 770. The list is not overwhelming, but I think now that the 770 is generally available, this list will grow.

While testing the 770, I was able to install several applications successfully, including Gaim, AbiWord and a general utility. Figure 6 shows the results of the Gaim installation. Installation of



**Figure 6. The Gaim Instant-Messenger Application**

applications was so simple, I began wondering why some of the more popular Linux distributions couldn't be more like the 770. There are two basic ways to install new applications. First, you can download the \*.deb binary package and then copy it over to the 770 using the USB connection. Then from the control panel, use the application installer to select the file. After installation, the new application appears in the Extras menu option. If you are fortunate to have the bandwidth, just install the application straight from the Internet. After clicking on the \*.deb file, the file download dialog should ask if you want to open the file with the application installer. Select open, and the application downloads. When it is complete, be sure to select Ok and the 770 installs the application.

### CONCLUSION

Despite the great user experience, the 770 is not without its flaws. The first may be more of a product or marketing decision, but the 770 comes with only a pitiful 128MB of internal Flash memory. Even the expansion RS-MMC cards available from Nokia reach only 128MB. This is very disappoint-

ing. With the growing demand for downloadable music, videos and movies, the 770 doesn't leave much room to play. I hope that Nokia finds a way to squeeze in at least 2GBs in future models.

To complete my dream of a handheld laptop replacement, future versions will have to include the ability to display the video signal to an external monitor. In addition, the Nokia 770 also will need a presentation viewer. Although the 770 does not provide some form of suspend or hibernate to save my exact state, it does permit the user to put the 770 in standby mode. To enter standby mode, remove (if not already removed) the metal protective case and place it over the screen of the 770. This is convenient, because it lets me minimize power consumption of the unit but still allows me to pick right back up from where I left a task.

In terms of setup, ease of use, expandability (except for memory), capability and support, the 770 scores very high. As a laptop replacement, the price is good, but I really hope Nokia adds additional memory soon. The documentation was helpful, but I can't wait for a Nokia 770 hacks book to appear. I tested the 770 with an external Bluetooth keyboard, and I'm convinced. I will try to set up a unit to take on the road with me later this year. I'll let you know how it works out. ■

**\$359.99 US**

<http://www.nokia.com/770>



Kevin Shockey is Editor in Chief of TUX.

# Artwork for Your Linux Desktop

For a glimpse of the future of customization in GNOME and KDE, Xavier Spriet compares the GNOME Art Manager and the KDE Control Center.

XAVIER SPRIET

Almost all of the desktop environments for Linux support themes that talented designers create and that we can download and install. On the two leading Linux desktop environments, GNOME and KDE, the elements that can be altered through themes are:

- Window decorations (title bar, borders and so on).
- Icons (used on the desktop, menus and toolbars).
- Wallpapers (used as desktop backgrounds).
- GUI controls (buttons, drop-down boxes and so on).
- Splash dialogs (shown when loading the desktop).

Both desktops ship with a fairly reasonable number of themes for each of these components, and you can download and install other themes from Web sites such as KDE-Look.org (<http://www.kde-look.org>), or <http://art.gnome.org>. The process of downloading these themes and installing them, however, always has been a little tedious, because you need to extract the theme archive at the proper place for your desktop to recognize it, and this can be a little confusing for new users.

Fortunately, it appears that both desktops have come up with solutions to this problem by allowing users to download and install themes directly from the desktop, and not worry about the inner workings of this process.

On GNOME, a new utility called GNOME Art allows users to look for

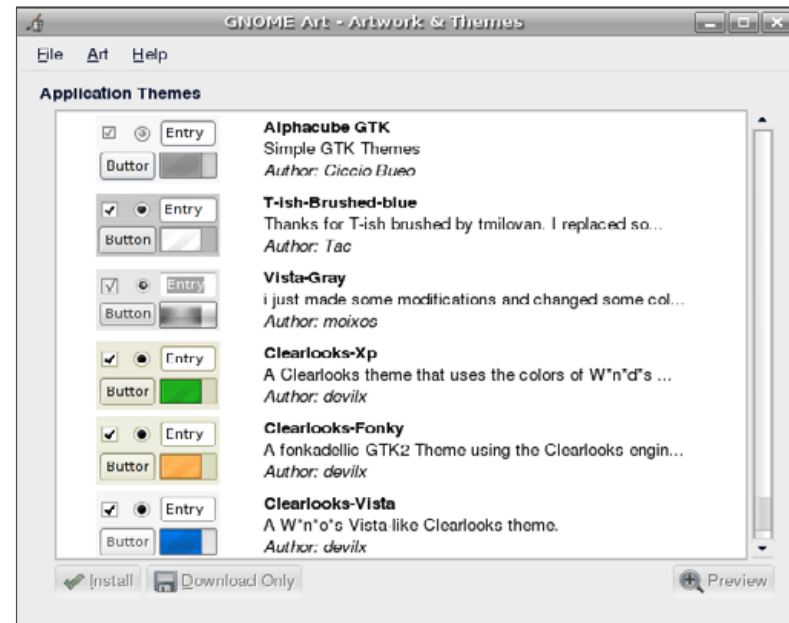


Figure 1. The GNOME Art Manager

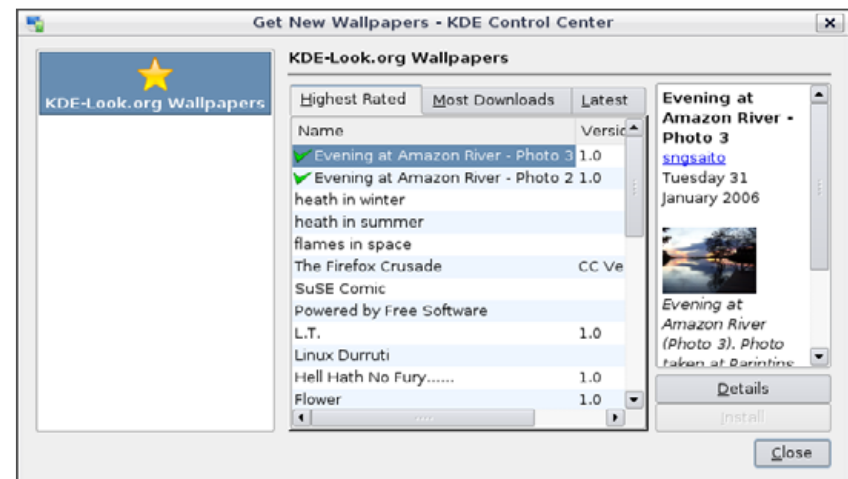
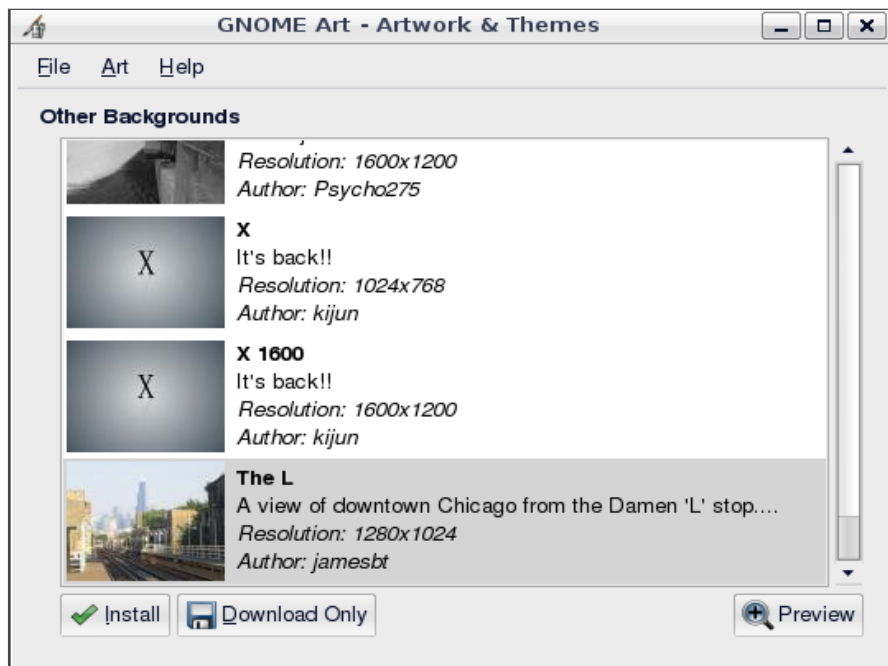


Figure 2. Selecting a KDE Wallpaper

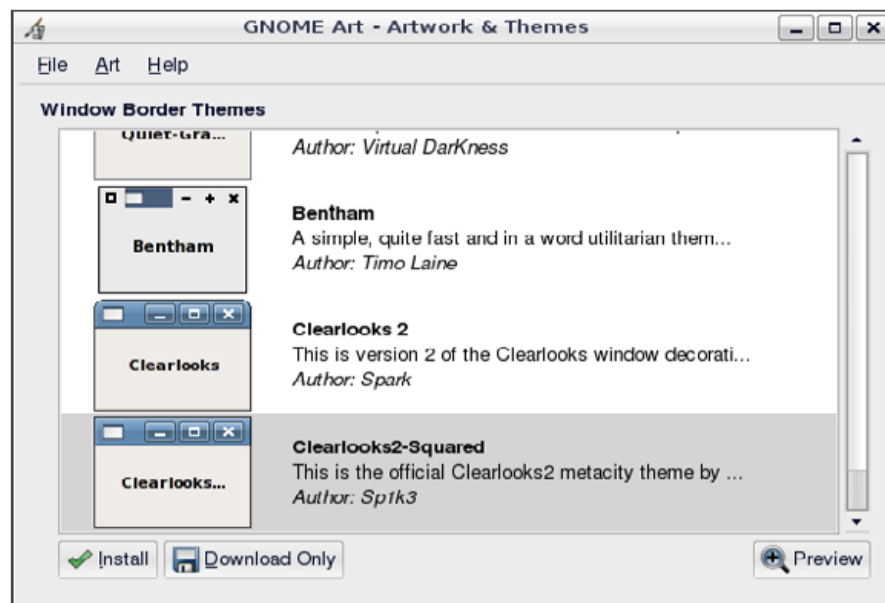


**Figure 3. Selecting a New Wallpaper for GNOME**

themes for any component of the desktop, preview and install them, without ever loading their Web browser.

On KDE, currently only desktop backgrounds can be configured in that way, but that is a good start. Users simply launch the KDE Control Center, select the Wallpapers item and click the Download more Wallpapers button in the dialog. A small utility will be launched that lets you look for wallpapers sorted by popularity and age.

The GNOME Art utility is a little more complete. It can find, download and install themes for every component of your desktop. You first need to install the utility (it is available at <http://www.miketech.net/gnome-art>) and launch it by typing `gnome-art` at the prompt. You then can click on the Art menu entry and select the component for which you would like to find artwork. The utility then downloads a list of items sorted chronologically, so if you are looking for the latest entries, you need to scroll down the bottom of



**Figure 4. Finding New Window Decorations for GNOME**

that list.

You can either download a theme and save its archive somewhere, or you can click the Install button once the theme of your choice is selected, and it will be installed. The utility then launches the GNOME theme preferences dialog, so you can activate that theme once it has been installed.

Although the GNOME Art manager utility hasn't been around for very long (since April 2005), some distributions are installing it automatically. To find out whether the utility is already present in your system, click on the Desktop→Preferences→Art Manager entry of your GNOME menu. If this entry does not exist, you will have to download and install the utility first.■



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# Gadget Guy Goes to CES 2006

SEAN CARRUTHERS

The Consumer Electronics Show, held annually at the beginning of January, is a treasure trove of products for the gadget freak—big gadgets, small gadgets, phone gadgets, multimedia gadgets and even Linux gadgets. I had the chance to attend the show again this year and got a look at a few new Linux-friendly products.

## LINSPIRE MINI

<http://www.linspire.com>  
\$399 US (approx)

One of the nicest things about the Linux operating system is that you can run it comfortably on hardware that would turn Windows into a lumbering beast. An upshot of this is a lot of people are able to turn their old creaky Windows machines into Linux boxes and keep that hardware in service for a while longer. Luckily, hardware manufacturers also have recognized that Linux's ability to work on more modest hardware makes it possible to offer a brand-spanking-new computer at a reasonably low cost.

What may not be so obvious is that the more



modest hardware requirements make it possible for Linux to run fairly well on hardware that's been purposefully scaled back or condensed in order to fit into a smaller form factor. Thus is born the Linspire Mini. It's clear that the Linspire Mini took a lot of its inspiration from the Mac Mini, Apple's own ultra-compact computer. The basic size and shape are almost identical, though the 2.8-pound Linspire box keeps the price down by featuring a less snazzy industrial design. (Some might call it kinda ugly, but really it's just kind of plain.) Because the unit is so compact, there's not much to see on the outside of the computer. The front has a power button and a slot for the DVD-ROM/CD-RW combo drive; the rear features two USB ports, a FireWire connector, S-Video and DVI video outputs, a 10/100 Ethernet port and speaker/mic jacks.

Inside, the Mini comes with a Pentium M 740 processor (or Celeron M), a single slot for DDR 2 memory, and a 40 or 80GB notebook-sized hard drive. Wireless networking also is available inside the box. Although the Linspire Mini comes with a DVI-to-D-Sub monitor adapter, you'll have to get the monitor, keyboard and mouse separately.

Coming from Linspire, it's no surprise that the Mini runs the Linspire operating system. Right out

of the box, the Mini comes with music and photo management software, Internet applications like Firefox, e-mail and instant messaging capabilities, as well as a number of built-in games. For the more advance user, built-in BitTorrent file-sharing software also is included. It's almost everything you need to get started in the world of Linux.

## POWERSQUID CALAMARI

<http://www.powersquid.net>  
\$79 US

If you're a gadget fanatic like I am, eventually you'll come to an unpleasant realization. There are a ton of gadgets out there—from cell phones to organizers to MP3 players to digital cameras to whatever else—that feature power adapters the size of small houses. It takes only one or two of those power bricks before you start realize how badly designed most power bars are.

The new PowerSquid design aims to remedy that problem, by breaking each of the six power outlets out onto its own tentacle to keep it from interfering with your ability to plug something in to the next outlet over. Ultimately, the tentacles will sprawl out a bit, but compared to having to string together multiple power bars to get all those power bricks hooked up, it's a small price to pay.

The thoughtfulness of the design doesn't stop



there. At the end of the cord you plug in to your wall outlet is a rotating head, allowing you to reposition the cord so it doesn't interfere with other nearby outlets, without having the cord jutting out from the wall itself. The Calamari model also features power indicator lights inside two of the outlets, allowing you to locate them easily, even if the rest of the squid is tucked into a dark corner behind your entertainment center.

## PEPPER PAD PLUS

<http://www.pepper.com>  
\$849 US

Launched in summer 2005, the Linux-powered Pepper Pad got a lot of attention for its combination of portability and multimedia functionality; in fact, *TUX* took a look at it in our debut issue ("The Pepper Pad 2: First Impressions", *TUX*, March 2005). Now, meet the Pepper Pad Plus.



Like the original Pepper Pad, the Pepper Pad Plus is designed to be an instant-on handheld wireless information center with a touch-sensitive screen and mini-keyboard. It can be used to surf the Web with the built-in Mozilla browser, connect to the AOL Instant Messenger service, send and receive e-mail, read eBooks, connect with the Flickr photo-sharing service and show off television schedules. You even can use it as a remote control for your audio/video equipment using the infrared port. This new version of the Pepper Pad also includes Windows Media compatibility and SIP-based VoIP Internet telephony.

There have been a few hardware improvements since the first generation. Although the LCD screen holds steady at 8.4 inches, the internal hard drive has been bumped up to 30GB, the Wi-Fi networking has been improved from 802.11b to 11g, and the Pepper Pad Plus includes Bluetooth 2.0. Even better, the battery life has been improved by 60%, so you don't have to hook it up to the charger so often.

As before, data input may take a bit of practice. The mini-keyboard is split onto either side of the Pepper Pad's screen; media control buttons appear above the QWERTY keys, and cursor and scroll controllers appear below. You can connect a whole variety of items to the Pepper Pad via USB, or you

can insert a SecureDigital card directly into the Pepper Pad Plus.

Linux developers also can create applications for the Pepper Pad by registering at <http://www.pepper.com/linux>.

## PICO PSU-120

[www.mini-box.com](http://www.mini-box.com)  
\$49 US

If you're planning to build your own compact Linux server—either for home or for the car—you have to check

out the PicoPSU-120, which is the smallest 120-Watt power supply I've ever seen. In fact, the entirety of the PicoPS-120 is barely larger than the standard ATX power connector that comes with most other power supplies.

The PicoPSU-120 features two full-size molex power connectors and a floppy-sized connector. A 12-volt input jack sits at the end of a wire long enough to reach the opposite side of a Mini-ITX motherboard, so you have flexibility in power location if you're building your own chassis. Best news of all: because it's so small, it doesn't need a cooling fan, which means ultra-quiet operation. ■



Sean Carruthers is a freelance technology journalist from Toronto. He spent six years at Canada Computer Paper, first as Products Editor at *The Computer* and later at *HUB Digital Living* magazine. As a freelancer, he has written for the *Globe and Mail*, <http://globetechnology.com>, *HUB Digital Living*, *Computer Dealer News*, *Homefront* and *CE-Biz*. Although a relative newbie with Linux (SUSE, thank you very much), he has extensive experience with tech gadgets of all sorts and is enjoying figuring out which ones are compatible with Linux.