

REVIEWED: extendedPDF, AbiWord, Gaim, Rhythmbox, Totem Movie Player



**Can Anyone
Use Linux?**



**New!
Q&A with Mango Parfait**

TUX

the first and only magazine for the new LINUX USER

Two KDE Konqueror How-Tos!

- *Linking For Newbies*
- *A Comprehensive Guide for the Power User*

ISSUE 2 • MAY 2005

INSTANT LINUX

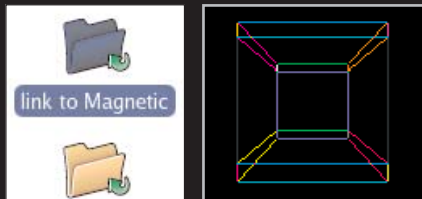
**EASY TO TRY, EASY TO INSTALL,
EASY TO USE BECAUSE THERE'S TUX.**

PLUS:

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- **Adding PDF Power to OpenOffice.org**
- **Everything you wanted to know about screensavers**



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TUX

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MAY 2005

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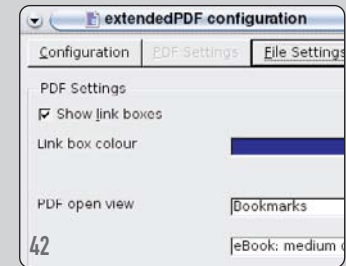
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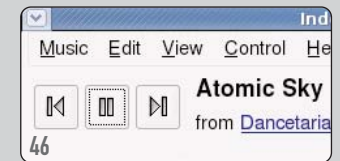
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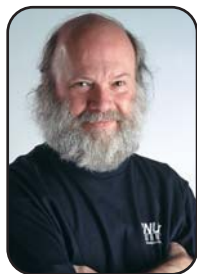
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FROM THE PUBLISHER

Can Anyone Use Linux?

Who's afraid of the big bad Linux? Surprisingly, it's Windows Power Users, that's who. But, nobody should fear Linux. Phil Hughes explains why Linux should be compelling to everyone.

PHIL HUGHES

The biggest issue preventing Linux from taking over the desktop is not a lack of availability of applications programs, hardware requirements or anything technical. The biggest obstacle is fear.

The funny thing is that it tends to be the more knowledgeable people who have this fear. That is, those who consider themselves Windows Power Users are more likely to be afraid of Linux than a relative newcomer to computing.

Let me offer an example. When I was first living in Costa Rica, my neighbor asked me if his maid, Rosa, could use my computer to check her e-mail. Rosa speaks no English, and her computer experience has been limited to using systems in Internet cafés. Her e-mail account is on Yahoo and, thus, is Web-based. I told him, sure, and he and Rosa came over to

try things out.

Rosa looked at me and asked if "it" was in Spanish. I told her it was. (Different KDE logins can be in different languages, and I had a guest login set up in Spanish.) That was the last question she asked. She sat down and used Konqueror, the KDE browser, to do what she had done in an Internet café.

This example is not atypical. In fact, ten-year-old kids who have never used a computer before are very happy to sit down, run Tux Paint or Potato Guy and use the system. Telling them that this is a Linux system just gets me the same blank stare as if I had said SCSI disks tend to be more reliable than IDE disks.

Now, what about that power user? Although I hear all sorts of concerns from Windows Power Users, virtually all of them

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boil down to “it’s different”. Well, that’s true—unless you come from a UNIX background. That likely explains why Linux is taking over the Web server business, where UNIX was the de facto standard.

Most of these differences to the Windows Power User are “on the inside”. That is, the changes in the user interface are not large issues. Anyone who has been using desktop computers for a few years knows changes happen as part of the natural evolution of the desktop.

Rather than try to explain those inside differences, let me justify them. Many of those differences are the reasons behind the following:

- Linux is much less likely to be damaged by viruses and worms.
- Linux offers the user a choice of desktop environments.
- Linux offers user-level protection from mistakes of other users.
- Linux supports interoperability with

FOR THOSE WHO ARE STILL AFRAID, YOU CAN TAKE THE LINUX PLUNGE WITHOUT EVEN LOADING IT ON YOUR COMPUTER.

many other types of systems.

I have been told that Linux is hard to install. It turns out that the majority of the people who told me that had never installed any operating system on a computer. That is, the computer came from the store with some version of Windows installed. If there was a problem, they brought the computer back to the store. Or, they got their brother-in-law or son to re-install the software.

The good news is that stores will sell you a computer with Linux pre-installed. Better still, you can choose which “brand” of Linux you want installed. Different Linux distributions offer different levels and types of support.

Sure, some are free and some cost money. Once again, that’s choice. If you (or your brother-in-law) are capable of doing your own support, great. The free versions might be perfect for you. If not, you have a lot of other choices.

Adoption of Linux on the desktop seems to be happening faster outside the US than inside. I see multiple considerations driving this trend.

The first is economics. Today, it costs more to buy a commercial operating system, office suite and all the other programs you need than it costs to buy the computer itself. People and companies just can’t afford these prices. If you don’t consider Linux as a solution, you are left with few alterna-

tives. You can steal the software or do without. Or, you can find an alternative you can afford, such as Linux. When I lived in Costa Rica, I saw individuals, companies and government pick Linux as the best way to address economics.

Although economics certainly play into government decisions in Brazil and Germany, there are other reasons why Linux is attractive. Reliability, mostly in the form of immunity to viruses and worms, is one big advantage Linux has over the competition. So is maintaining control. That is, with Linux, the consumer has much more control over what to upgrade and when to upgrade. For example, commercial software companies often require you to purchase and install a new version of their software to address problems with the current version. This is a costly, risky and complicated solution. If the company uses Linux, it could elect to install a patch to their systems to address the problem instead.

Finally, I see a different attitude that helps promote Linux more than commercial alternatives in other countries.

In the US, advertising is a significant factor driving purchasing decisions. If you don't believe that, look at the fast-food industry. The biggies in this field don't necessarily make better hamburgers—it is just that brand recognition herds people to their products.

Where I live, word of mouth is the most important factor in getting market share. For example, more than 50% of the vehicles in this area are Toyotas. This isn't because Toyota has a big advertising campaign; it is because people talk about their vehicles, and Toyota has come out way above the alternatives.

This doesn't necessarily mean that a Toyota pickup is better than a Mitsubishi. It simply means that the local perception is that a Toyota is better than a Mitsubishi, and that perception comes from the personal experience people have with Toyotas. Even a big advertising campaign by Mitsubishi would be unlikely to change the minds of more than a few people here.

Linux word of mouth tends to be very positive. It just doesn't take a lot

of people saying "Linux solved my problems and it cost less than the alternatives" before you see people giving it a serious look.

For those who are still afraid, you can take the Linux plunge without even loading it on your computer. Multiple Linux distributions will run directly from your CD drive. They will be much slower than if Linux were loaded onto your hard disk, but it may be a good way to address your fear.

The most popular choice is Knoppix. You can find out about it on the Web at <http://www.knopper.net/knoppix/index-en.html>. Knoppix is a noncommercial choice you can try without installing anything. Commercial Linux vendors also offer live evaluations for free. Novell offers a live evaluation CD for its SUSE distribution. Go to <http://www.novell.com/linux/suse/index.html> and search for "live eval".

So, in conclusion, I think anyone can use Linux. But, you don't have to take my word for it. There are free and easy ways to try it out for yourself. ■

Phil Hughes is Group Publisher for SSC Publishing, Ltd.



FROM THE EDITOR

Viva La Linux Desktop Revolución

Prepare for the Linux desktop revolution. It's happening now, and I have evidence to prove it.

NICHOLAS PETRELEY

The jury will please turn its attention to the evidence marked Exhibit 1. I just finished a monster of a report for Evans Data Corporation. This report was an analysis of data collected from every imaginable type of Linux developer. Now I know that many, if not most of you reading this right now, aren't likely to be programmers, let alone Linux application developers. But, the survey data was packed with information that even the most unexperienced amateur of Linux should know. Evans wants to sell this report, so I can't give away all the juicy details. However, I can tell you enough general information that should surprise and delight you.

If there is one bit of data in the report more than any other that should raise eyebrows, it is the fact that the respondents named Linux as the best operating system for personal desktop productivity. In case you're not up with the journalist lingo, that means they said it's better than Windows as an easy-to-use desktop for getting your work done. Granted, Windows ranked a very close second, and the difference fell within the margin of error. But the last time we asked a question even remotely similar to this one (about a year ago), Linux hardly showed up as a blip on the radar. For years, these respondents chose Linux as the best operating system for everything but personal productivity. Until this survey, respondents believed that when it comes to Web browsing, writing documents, working with spread-

sheets, exchanging e-mail, managing your calendar and all the rest of the things people do, it was all Windows, Windows, Windows. Linux not need apply.

Admittedly, the people who responded to this survey are technical people, not home users or nontechnical office workers. But aside from the fact that there has been a sudden change in their perception of Linux as a platform for personal productivity, there's data in the survey that shows they believe home users and office workers will be adopting Linux on the desktop too.

There are many other results in the survey that support this conclusion, but I'll leak only a little more information; otherwise, Evans Data is likely to put bamboo shoots under my fingernails, drill my teeth with no anesthetic or worse, make me attend a Britney Spears concert.

For the first time, developers are writing more applications for Linux than they are for Windows. More important, a significant percentage of the applications they are writing represent graphical applications for the desktop. Past surveys indicated that they used Linux almost exclusively for writing server applications, with very little interest in addressing the desktop market. The inference should be obvious. If developers are working on desktop applications, they must believe now more than ever that they can sell them.

Okay, enough of Exhibit 1. If the jury will now please

turn its attention to the evidence marked Exhibit 2, which happens to include a shameless plug for a book I co-wrote with a fellow named Jono Bacon. The book is called *Linux Desktop Hacks*, and if it isn't on the shelves now, it will be soon. This book is published by O'Reilly, which, if you know the publishing industry, would tell you that O'Reilly expects people to buy it. No book idea is a sure thing, but O'Reilly has a good record for iden-

FOR THE FIRST TIME, DEVELOPERS ARE WRITING MORE APPLICATIONS FOR LINUX THAN THEY ARE FOR WINDOWS.

tifying a market and publishing books that sell into that market.

You also should know that the *Linux Server Hacks* book is one of their best-selling books. But now O'Reilly believes there is enough of a Linux desktop market that a book on Linux desktop hacks should be successful. (And, it will be if you all run out and buy it the moment it hits the shelves—hint, hint.)

Seriously, *Linux Desktop Hacks* is

written primarily for Linux users with varying levels of technical expertise, from competent amateur to expert hacker (although some of the hacks probably are easy enough for grandma too). So even though I encourage you to look at it, I won't be offended if many *TUX* readers find it too technical to be useful. (Of course, you could buy it for some technical person you know—okay, okay, enough of that, I promise.)

Now if the jury will please turn its attention the evidence marked Exhibit 3. Just ask yourself the question, what does Linux lack at this point? KDE, the most popular graphical desktop, has features Windows could only hope to have—and I mean hope, because some of the features Microsoft would never dare implement. For example, you can pop an audio CD into your CD-ROM drive, open up a Konqueror window

and create MP3 files of all the songs on that CD with a simple drag-and-drop operation. Microsoft, on the other hand, is a toadie for the music industry and is therefore working hard to prevent you from doing things like that, lest you create an MP3 file in order to break a copyright.

We have OpenOffice.org, an office suite with all the features people actually use. If you don't like OpenOffice.org, there are other free and commercial office suites from which to choose. I daresay that we Linux users have more office software to choose from than Windows users, because Microsoft virtually has eliminated all the competition. And, when I absolutely must use a program like Microsoft Word (some publishers insist upon it), I run it on Linux with either CrossOver Office (<http://www.codeweavers.com>) or Win4Lin (<http://www.netraverse.com>).

In summary, dear jury, I suggest you prepare for the Linux desktop revolution. It's happening now. Trust me—you want to be a part of it. ■

TUX Editor in Chief Nicholas Petreley is an author, consultant, programmer, award-winning columnist and Linux analyst for Evans Data Corp.

LETTERS

MS Bashing?

First off, I wanted to thank the whole TUX team for putting together this magazine. I think this publication is going to be a great tool/resource for me and the rest of your subscribers. There wasn't an article that I couldn't take something away from. Keep up the good work!

My only complaint was the blatant and needless MS bashing in the opening editorial. Linux stands up well enough on its own without the need to stoop down to Microsoft's level with all the FUD slinging. I would think that people in this industry understand that there are choices and that not every option is best suited to every scenario. I have many PCs at home, all but one run Linux, and I wouldn't have it any other way.

--

Andrew

We at TUX consciously avoid bashing Microsoft in our articles. Our job is to promote Linux, however, and even more importantly it's our passion to promote Linux. Sometimes, it is important in an article to point out the ways in which Linux is superior to its most visible competition, Windows. This can sometimes be misinterpreted as Windows bashing, but it is simply addressing an important fact the reader should know. Although, I can tell you it's our goal to stay away from "bashing" in general.

Obviously, opinion columns are not subject to the same rules, because everything in the column is the author's opinion, with which readers are free to agree or disagree.

Thanks again for your input, and we hope you continue to enjoy the magazine!—Ed.

Help with International Characters

First things first, a big thank you for such a timely magazine. The stuffs are great, and I am still trying to finish reading your site and the downloaded PDF (another great) file.

I was a little disappointed in the Web article "Entering International Characters", though. I am hoping to understand how to input cjk characters in a mostly English document, for example, Mr so and so, who happens to be Japanese/Korean/Chinese, with the rest of the document in English.

I am using SUSE 9.2 (5 CD) and had to surf the Net for weeks but to no avail. In fact, I had found that many people are asking the same question, but it seems like nobody takes notice. Any chance of a small article to explain this little trick? Again, a million thanks for the great stuffs!!

--

Michael

ShortKeys for Linux?

First off, thank you for TUX magazine. I have my electronic subscription and love it. Thank you very much.

As a Windows refugee, most of the MS programs I used are a distant memory; however, there is one I miss and would really like to see either ported to Linux or mimicked. That program is ShortKeys. It is simple. I set up the key shortcuts and it types the word for me. As an example, if I want to type my company name, MobileMaster of Austin, with ShortKeys, all I have to type is mmm, and it happens. I have looked at khotkeys but not only is it very complex, there seems to be some real problems with the software. I have been in contact with the author of ShortKeys, and he has told me he has no interest in Linux. Is there anything comparable in Linux? Can you help?

--

Ken Starks

We will forward this question to Mango Parfait, the author of our new Q&A column, Q&A with Mango Parfait. It was too late to get it to her for this issue, but perhaps she'll elect to address it in a future issue.—Ed.

Thanks TUX

I just wanted to say that you guys at *TUX* magazine are doing a great job. It's nice finally to see a magazine tailored to the new Linux user. I also like the fact that it keeps the Linux spirit and is free to anyone that wants it. It has a nice format; it's very professional looking, and I also think it's a great idea for the issues to be on-line. Keep up the great work guys, I hope to read more!

On a side note, I think it would cool to see something on the different methods of installing programs. I mean, there's dependencies, .rpm files and .deb files just to start off with. And maybe something on the future of installing programs on Linux.

--
Schuyler

Congratulations, But...

I would like to congratulate you on your first edition, it was a change to see basic straightforward articles rather than those that start of showing you the latest development program assuming that all Linux users are developers.

But (you knew there was a but coming), I found it very heavy going reading it on-screen. I don't know if articles I have read on-line in the past have been "lightened" text-wise to make it easier to read, but yours is more of a magazine that has been put on-line. Sorry if that sounds like stating the obvious.

I will eagerly await the next issue with anticipation

--
Tim Henley

KDE vs. GNOME

Thanks for the new on-line edition of *TUX*. I think that it's a great concept. As I was browsing through the magazine, I noticed that the articles covered were for software designed for the KDE environment. While I think that this is a good idea, it would be great if there was more balance in covering the software for those users that use Linux desktop environments other than KDE (such as GNOME). While it is true that much KDE-oriented software will work with GNOME, it is still a good idea to have articles for those of use who are using the GNOME desktop environment.

--
Jeffrey

Our authors are instructed to include GNOME-related information whenever it is useful, and we will certainly print some GNOME-centric articles. The fact is, however, that KDE has the largest market share, and that means the majority of our readers probably use KDE most, or use only KDE. That is the reason for our emphasis on KDE.—Ed.

For the Average Joe

I personally would like to thank you for providing a magazine for the average joe. I used to love *Maximum Linux* and was distraught when it ended. I have been looking forward to a new general-user Linux mag since.

I have been using Linux on and off for a few years now (since Mandrake 7.0). Generally, I try each new release for a while, decide it's not quite up to snuff yet, then go back to Windows. Finally, with Mandrake 10.0, I seem to be able to settle in with Linux. Linux seems VERY close to being a complete Desktop OS.

As a small home-business owner (just starting up), I am very interested in keeping Linux for my business needs (for cost and security reasons). For the most part, I am happy. I run OpenOffice.org, Mozilla and Nvu (kind of slow) for my general office and Web design stuff, and I use Cadsoft's Eagle Schematic and PCB layout package for my design work. As you can see, I am very careful to pick software applications that are available for both Windows and Linux. I purchased a copy of Netraverse's Win4Lin 5 and installed an old copy of Windows 98—VERY nice!!!! It works very well for the various software items that I can't find for Linux—mainly QuickBooks, Avery Label Software and TurboCad.

Sorry for the above monologue. The main reason for this e-mail is to request a topic. An article on using Linux for a small business would be great. I have had quite a bit of trouble finding information on accounting packages and how they compare to the Windows equivalents. My personal main interests are accounting software, voice-mail/Fax software, Web design software and label software.

--
Craig Lindholm

Requests

Let me start by thanking you. This magazine is filling a very important void. As the “driver, not mechanic”-type Linux user you’re targeting, I have found a dramatic lack of information I can use. I’m lucky not to have been told too many times to “RTFM”, but most the manuals and articles I’ve read require a background knowledge that I’m having to fight to build for myself. I’m really looking forward to a “normal-user”-oriented magazine.

I wanted to suggest an article idea. The variety of Linux distros available can be pretty overwhelming. Everyone I talk to has a preference, though not many can tell me why they prefer this over that. How about an article describing what the differences are *at the user-level*. There is plenty of information on Knoppix and Ubuntu being “Debian-based”, while Mandrake evolved from Red Hat for instance, but I have no idea what that means. I’m interested in a few paragraphs on each of six to ten different distributions telling me what differences I’ll see in them that would make me prefer one over the other.

Another article I’d love to see is a how-to list (cheat sheet?) including how to install a .tar application, how to find and use CD burning software, and other everyday activities that most computer people take for granted. In making the transition from Windows to Linux, all of that changes somewhat. A concise list of the most commonly performed tasks and how to do them in a Linux environment would

be really helpful. I hope these are useful to you, and thanks again for setting up the magazine.

--
Donovan Hoggan

Thanks for your input. We are discussing how to create cheat sheets like the ones you suggested, and whether or not to publish them separately or in TUX. We will also do what we can to schedule an article that sorts out the differences between distributions and puts the information in layman’s terms. See next issue for an article on CD burning—Ed.

More GNOME

Just wanted to write a quick note to say that I really enjoyed the first issue. I am only about three months new to Linux and have been enjoying my new Microsoft-Free environment throughly.

In future issues I would love to see more articles on GNOME-based applications rather than strictly “K”-based ones. Or, just have authors clearly specify that the “application is installable and usable under the following desktops: GNOME, KDE and so on.” Additional topics I’d love to see covered would be how to sync the PocketPC with Linux; running a Linux distro on the PocketPC (yes, I know, kind of advanced for newbies); and more reviews and info of Linux-based devices like Pepper (for example, the Sharp Zaurus). Best of luck with the new publication!!

--
Jeffrey

The New Cell Processor

I’d like to see an article on the new cell processor produced by Sony, Toshiba and IBM. The article would start out something like this: “The new cell processor processes graphics ten times faster than the best Pentium. IBM says it will incorporate the chip in a new workstation later this year. Wonder which operating system. Could it be Linux? Is this the start of a new empire? Lincell instead of Wintel?”

--
Ralph Paidock

Bravo

Bravo on your first issue! It was way more than I had hoped for! I now feel confident that I can switch my home PC over to Linux in the near future, except for two questions:

1) How do I set up DSL on Linux? Could you put together a tutorial on that, along with some troubleshooting tips? I can’t be isolated from the Internet for very long before I get the DTs!

2) How do I set up printing? I have a Brother MFC 6800 that I will probably have a hard time finding Linux drivers for.

Maybe you can start a new column answering questions like these from subscribers and call it something like, “Ask Dr Tux” (or something wittier).

Thanks for the help. I showed a printout of your mag to the guys during our local Linux Users’

Group meeting (<http://mgalug.org>), and they were impressed, too. I can't wait for the next issues, especially the one about personal finance s/w! Thanks once again—you guys are yet another example of the excellence I see all over the place in the Linux community!

--
Bill Chaney

Screensaver to Share

I have created a screensaver for Windows systems that will display a tutorial for Linux commands, and wish to share it with the world. I am going to use this tool at our school to beef up CLI knowledge, and am also sharing it with the world. This is the first version, and there will be more releases that will teach different objectives aligned with system administration. The address is <http://waskillsusa.tstc.edu>. The program is located in the news section (right above a link to your Web site).

--
WY

More Thanks

I just finished reading (cover to cover) your first issue of *TUX* magazine. All I can say is Wow. I want to thank you for creating such a useful, professional and FREE e-zine. I appreciated the clear, jargon-free directions (which is often lacking in man pages). I especially enjoyed your look at The GIMP. I have spent years becoming (somewhat) proficient in Photoshop, so I have been reluctant to begin a new learning curve. Your article has

convinced me to take another look at The GIMP, and I will be looking forward to future articles and collecting them for future reference.

Although I have a few years of experience with Linux, I found useful tips throughout the magazine, even for programs I have been using for quite a while.

You asked for suggestions for future articles, and I would like to request a simple look into securing a Linux box, from firewalls and network scanning tools to keeping up with security patches and updates.

I also am running an Apache Web server, so info on configuring and securing Apache would be helpful for me. I realize that this may be a little more advanced than your average newbie will use, but perhaps a section of your mag for slightly more advanced users? Again, I would like to thank you all for your excellent publication. It is much more than I had hoped for. Keep up the great work.

--
Michelle Blowers

KAudioCreator Article

I have just signed up, downloaded and printed out the *TUX* magazine—I can only say thank you. This is just what I have been looking for, I have no problem downloading and installing Linux distributions, but I have very little experience when it

comes to using the system. Your magazine provides me with some clear guidance.

The first issue contains something that I need. I am trying to turn an old laptop into a music box for my camper van. Your piece about ripping with KAudioCreator has given me a big head start with my project [see "Rip Your Audio Files Down to Size with KAudioCreator" by James Gray, *TUX*, March 2005].

--
Paul Stephenson

James Gray replies: *that's terrific, thanks for letting me know. I had a great time putting the article together, and I'm so pleased it helped you, too. Good luck!*

TuxScout

I'd like to let you know about a new job-search site I recently developed that's dedicated to the Linux and Open Source community: <http://tuxscout.com>.

The goal of TuxScout is to provide a comprehensive resource to job seekers and employers seeking to scratch their respective open-source itches. The site includes almost everything you'd expect of a modern system, such as a powerful and sophisticated search engine, discussion forums, news feeds, links to career resources and an updated calendar of Linux/open-source events. TuxScout is completely free to job seek-

ers and employers, which makes it a great resource for many small businesses looking to hire top Linux talent.

I'd greatly appreciate it if you could support this effort by spreading the word in any way you can. The site is only a few days old and is just starting to gain some traction. With your help, TuxScout has the potential of being an employment hub for the entire Linux/Open Source community.

--
Sharif Alexandre

Ah, the Irony

I find it quite ironic that you have used an advanced version of PDF for your Linux magazine that cannot be displayed by the versions of acroread that are available for Linux systems! I will have to try viewing the document with a Windows version of Acrobat Reader. I find this to be in extremely poor taste.

--
Collins Richey

If you try to read TUX with a browser and an Acrobat plugin, it will not display the magazine. We're not sure why the plugin fails. If you download the magazine as a PDF file and view it with the Acrobat 5, you will get a warning that some features may not be available. We do not use any features that aren't available, so it displays the magazine perfectly after you close the warning dialog box.

By the way, at the time of this writing, you can find version 7 of Acrobat Reader for Linux at the following FTP address: ftp://ftp.adobe.com/pub/adobe/reader/unix/7x/7.0/enu.—Ed.

Not PDF

I originally began to sign up for a subscription when there was going to be a hard copy of *TUX*. I was disappointed that you decided not to go that route. But I thought I would give it a try with misgivings. I don't have cable/broadband. In my area, getting 46k out of the connection is good. Trying to download anything that takes more than ten minutes is impossible due to flaky lines and bounces breaking the connection. So I just tried to look at the March issue. I can't get to it. There has to be a better or more diverse solution than PDF—if you don't want a hard copy, why not XML or HTML so at least those of us who would like to support/look/read it could do so?

--
Jay

Bad Documentation?

I just ran across your magazine today, and subscribed immediately. This is an excellent idea. I have concluded that a lot of programming genius is wasted because of bad or non-existent documentation. I have tried a number of times to do, or find out how to do, things with GNU/Linux. Many times I have not been able to find out, I have found something and tried to run it and have had it not run at all, or I have

run it and gotten a screen full of buttons that mean nothing.

I like the idea of organizing things by tasks, such as, I want to burn a CD, or I want to sync my Palm Pilot—how do I do it? For me, personally, if I can get a foot in the door by finding out how to do some basic function, I can help myself to more. On the other hand, if I have to start from nothing, with no documentation and not even any idea of IF I can do something, or with a program that requires some obscure configuration, I just get nowhere.

--
Steven White

PDF Problems

I just heard about, subscribed to and downloaded the March issue today.

My first impressions of *TUX* magazine are awful.

- 1) You FORCE OPEN the magazine in full screen and then lock down the PDF so I can't make the change to prevent this in the future.
- 2) The dimensions are terrible. Stick with US Letter or A4, but stick to standards—so I can more easily print the darn thing.
- 3) Even if you stick with the “screen-friendly” dimensions, the magazine is in LANDSCAPE mode (UGH!) Reading documents in landscape

can only politely be described as awkward.

And, I haven't even gotten to the content yet. If this is going to be your primary means of distribution, you need to make the magazine friendlier to the people reading it and not assume that everyone will want to read your magazine only on-screen. Forcing someone to do something YOUR way is not in the spirit of Linux or Open Source and is certainly not going to keep me reading.

Although the concept is sound, the execution is terrible. I'll be looking forward to improvements in future issues before I decide to cancel my subscription.

Thanks for your time, efforts and consideration,

--

Michael Potter

Once the magazine expands to full screen, you can press Escape to get back to a window view. We are aware of some of the problems of publishing in PDF format, and we're working hard at solving them.—Ed.

For Drivers

Thanks for the Magazine for "drivers" of Linux. I am an emerging newbie in Linux and just love it. One thing I found was a frustration in terminology for the new user. Words like terminal and shell simply don't make sense to a common

Windows user. I believe that it's this "technical" jargon (and not its use as it is actually easy to use) that makes the common computer user "afraid" of Linux. What we need is less Linux "mechanics" explaining the "how-tos" and more common users, former Windows users at that, telling the skinny on what is what in Linux. Once we build the terminology bridge to the Windows user, then we will see the converts start rolling across it. Linux gets better by the day, and I am very happy with it. It works; it's stable; despite my best efforts you can't break it! As they say though, perception is 9/10th of reality. Your magazine will go a long way to helping tear down those false perceptions.

Would love to see some more info on apps—Wine is a biggie!

PS: Great look and feel to the magazine. The PDF was awesome in my new Adobe 7.0!

--

Andrew Brown

Need Help

I enjoyed your first issue, especially the article on managing your desktop, assigning icons and so on [see "Customizing Your KDE Work Environment" by Æleen Frisch, *TUX*, March 2005]. That was immediately useful, as I had Firefox as a nasty-looking script icon and my kids refused to use it! They're starting to use Linux (SUSE 9.1) now as I've made the icons and desktop background the

same as what they had on XP.

Anyhow, we really like our free games and games trials, and we're always downloading and trying stuff out on XP. So I thought, I bet there's loads of great stuff to play on Linux. But...what the heck is Open GL? What's configure, make, makefile, X11? Do I need to install compilers? It's not exactly an unzip and run install program is it?

As with all things, I'm sure there's a straightforward way to download games and play them without needing a certificate in UNIX scripting. Can you help/advise?

--

Kieran Caulfield

Great Design

Just grabbed your first issue after seeing the ad in *Linux Journal*. Though I haven't had time to browse through all of your content, I'd like to quickly mention two things. 1) The design is gorgeous. It's nice, simple, friendly and clean. 2) You've done a nice job targeting your content. It's accessible to new desktop Linux users, but useful and informative to a more experienced user like myself. I look forward to future issues. I'm a bit bummed out by your decision not to offer a print edition at this time, but I'd like to say I would almost certainly subscribe were you to offer one again in the future.

--

Mike Baehr ■



Q&A with Mango Parfait

Mango Parfait introduces herself, answers her own questions with astounding facility and invites you to ask her your own questions. Don't be shy. There are no stupid questions, only stupid answers.

BY MANGO PARFAIT

Hi. My name is Mango Parfait, or Mango-Pafe in my native language. The publisher of *TUX* wisely hired me to answer any questions you have about Linux. Ask anything about using Linux, installing Linux, how to fix things when they don't work in Linux and anything else. In fact, feel free to ask me anything at all—except my age. That's not polite.

I will try to answer as many questions as possible, but I humbly apologize in advance that I cannot answer questions by e-mail and that some questions may not make it into this column. I'm a busy girl, and there is only so much room in this magazine.

Here are my qualifications. I started using Linux before Linus Torvalds even thought of it, so I know more than most of the dweeb boys I meet who gush all over me when they find out I use Linux.

Eewww, guys, buy some Benzyl Peroxide and learn how to talk to a girl without using the word siskittle (how they pronounce the term `sysctl`) in every other sentence to try to impress me.

Speaking of being a girl, let me warn you. If you don't think I can answer your questions because I'm a girl, you better not say that to my face. I'm a master of Jew Jitsu (a style of martial arts I picked up during my many visits to Israel, New York and Florida), and I won't hesitate to teach you a lesson in black and blue. And, I don't mean that I'll draw your picture with the graphics program called GIMP. Truly, GIMP will take on a whole new meaning when I'm through with you.

If you do ask something I don't know, which is really not likely, it's only because I forgot. In that case, I have lots of

friends to call who can help me. One of them is ex-boyfriend, Otaku, who builds and pilots huge fighting robots. I think he calls them Powerful and Humungous Aggressive Robot Thingies or something like that. Anyway, these PHARTs are powered by super-computing Linux clusters. He not only wrote the programs to control the huge fighting robot, he programmed an artificial intelligence system that helps him pilot, helps him fix the robot after battles, gives him fashion advice and can answer questions about Linux that even he doesn't know.

This being the first Q&A with Mango Parfait, I have no reader questions to answer yet. But, I still can answer questions in this issue. Some of them are questions I hear all the time, and some I will just make up.

Q I am a Windows user and I don't know anything about Linux. What is the easiest way for me to try it?—*Saku Shamishou*

A There are some versions of Linux that you don't have to install in order to use them. They run right from the CD. Linux runs slower than usual if you run it from CD, but it is the easiest way to find out if Linux is for you. You can install most of these run-from-CD versions of Linux on your computer if you decide you like it. Then it will run much faster and you will have a lot more you can do.

My favorite run-from-CD versions of Linux are MEPIS and Knoppix. You can find out more about MEPIS by visiting <http://www.mepis.com>. You can order a MEPIS CD from <http://store.mepis.com/home.php> for only \$9.95 US. You can get MEPIS for free if you download a CD image file and burn your own MEPIS CD. If you are a beginner user, you may not know how to do that, so just send in your \$9.95. It is easier and you get a much prettier CD than one you make yourself.

You can find out more about Knoppix at <http://www.knoppix.org>.

The Web page comes up in German. Saku Shamishou doesn't sound like a German name (I know, because I made it up). So when you get to the Knoppix home page, click on the flag that represents a language you understand, like English. I like to pick flags with languages I don't understand. I like Polish, because it has all kinds of funny looking letters and words without any vowels except maybe y, which can save you a lot of money if you play *Wheel of Fortune* on Polish TV. Russian looks even better, and all those backward letters in Russian makes me wonder if the language was created by a four-year-old. The Japanese site should be the best, but it isn't written in Japanese. It does have two fun Java applets, though.

Scroll down to the bottom of the Knoppix home page. You will find a link where you can download Knoppix and make your own CD, and a link that takes you to a page with lots of stores where you can order a Knoppix CD and do a lot of other fun shopping while you're there. Knoppix is cheap. One store sells it for \$3.95 US.

Naturally, you need to know how to start up your computer with the CD

instead of the hard drive. That's a good question, and some real person out there should ask it.

By the way, if any of this sounds interesting, make sure you read the column by the publisher Phil Hughes, "Can Anyone Use Linux?" (page 2).

Q Which Linux distribution do you use?—*Pittsa Feisu*

A I use many distributions. My favorite is Gentoo. Gentoo is not for beginners or for people who want their desktop to be fast and responsive. It is for people who like to watch their computer compile software for hours and hours and hours, which is what slows down the desktop. (The desktop is fast if you don't compile programs when you use it.) I download the latest unstable Gentoo updates every day and watch my computer compile programs all night when I have insomnia. You risk making Gentoo unstable when you update all the time. The most thorough way to cure the problem is to recompile the entire system from scratch. It takes days for Gentoo to compile everything. I like to watch all the compiler messages scroll off the screen day after day. It is hypnotizing.

Q Which desktop do you recommend, KDE or GNOME?—*Nakaguri Shitsugi*

A Definitely KDE. It is much prettier than GNOME. You can change anything about the way KDE looks, including the colors for every detail. I created a color theme for every outfit I own so that I am always color-coordinated with my desktop. GNOME doesn't let me do that, so I don't use GNOME unless I must.

Q When I open folders within folders in GNOME, it leaves the parent folders open and my screen gets cluttered with lots of open folders. How can I prevent that?—*Hakuchi Purogurama*

A There are at least three ways to deal with this problem. You can edit the GNOME registry to change the way folders work. You can right-click on a folder and choose Browse Folder from the menu, which opens a folder window that is easier to navigate.

The third would be my favorite method. If you hold down the Shift key

when you open a new folder, GNOME closes the old folder when it opens the new one. I said it *would* be my favorite method, not that it *is* my favorite method. I am happy to be delicate and feminine and want to remain so. I do not like to strain my finger by double-clicking everything. So I configure GNOME to let me open folders with a single mouse click like KDE. The Shift key trick doesn't work when GNOME opens folders with a single mouse click.

Q I changed the clock on my KDE panel to a 12-hour format with AM/PM, but it doesn't work. It is still a 24-hour clock.—*Carlotta Tendant*

A It works. You won't see the change until the KDE panel restarts. The next time you log in, you should see the new time format.

Q Okay, now I see it is in 12-hour format, but it doesn't show AM or PM.—*Carlotta*

A You won't see AM/PM if your clock type is anything but a Plain

clock. Digital, Analog and Fuzzy themes do not display AM/PM. Here's a trick to get around the problem and still use something other than the Plain clock. Your clock reads 1:00. Look outside. Is it light outside? If so, then it is either 1:00 PM, or you live somewhere very far to the north and it's summertime and you should really move to a place with a warmer climate where you get to wear shorter skirts.

Q Are you sensitive about anything else besides being patronized because you're a girl?—*Macho Mann*

A Yes. I do not like the increasing invasion of our privacy. Did you ever notice how those maps in malls and other buildings mark a place that says "You are here"? How could they know that without secret hidden cameras?■

Mango Parfait is a Linux expert, and a cute one too; just ask her. If you want to ask her something she can answer for Q&A with Mango Parfait, send your questions to mango@tuxmagazine.com.

Movies and More—Life with Xine

Everything you wanted to know about using the program Xine to watch DVDs on your Linux PC, plus lots of information for people who want to tap the hidden power of Xine.

LEW PITCHER

I'm a child of the sixties. I grew up with movies on late-night TV, at the drive-in, in the theatre, Super-8 home movies projected on a portable screen—movies everywhere. Well, not everywhere, but everywhere that counted. As I got older, movies migrated from late-night TV to video tape. Instead of depending on the whim of the local TV station, I could now go rent (and later, buy) a movie, and watch it on TV any time. Later still, movies transitioned to DVD and digital file format, and with the right hardware and software, I could even watch them on my computer.

My laptop included a DVD drive, so the first major test of my Linux-based laptop was a movie. I went back to my roots, loaded a DVD of an old "spaghetti western" movie into my machine, sat back and re-lived a small bit of my youth. Since then, I've watched many movies on my laptop. In that time, I've tried a number of video applications, and I always come back to the one I started with, Xine.

WHAT IS XINE?

So, what is Xine, anyway? Xine is an open-source multimedia player for UNIX-like systems, including Linux. It can play a variety of

video and audio media, including DVDs (assuming you have a DVD drive installed in your computer), CDs and VCDs, as well as video and audio media files in a variety of common formats, including MPEG, DIVX, Quicktime, Ogg Theora, Ogg Vorbis and WAVe. In other words, Xine is a very versatile audio and video multimedia player.

You can start Xine from the command line (the program name is xine), but the usual way to start it is from a menu. You probably will find Xine in the Multimedia tab of your desktop menu, labeled as a Video Player or Multimedia Player.

The first time you start up Xine, you are presented with a multimedia control panel, a video window and a setup menu. The control panel is skinnable, and starts up in the xinet theme. On this panel, which looks like the controls of a DVD player, you will find all the controls and information you need to view movies or listen to music.

The video window is the screen on which the video (from your DVD, VCD or video file) or visualization effects (generated by Xine from your music) appears. It always starts up with the Xine logo, which is later replaced by the video content when you start playing your movie or listening to your music.



Figure 1. Starting Xine from the KDE Menu



Figure 2. xinet-Themed Multimedia Control Panel



Figure 3. Xine Video Window

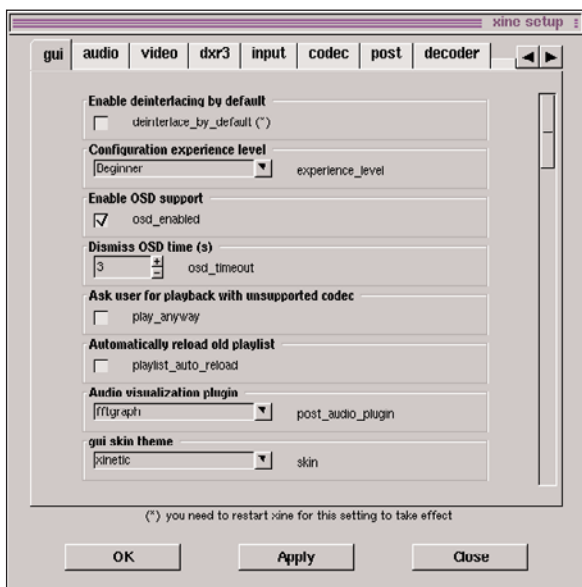


Figure 4. Xine's Initial Setup Menu

Finally, the setup window is where you customize Xine for your system. As a beginner, there's not much you can (or need to) change, and it is fine simply to click the Close button and dismiss the window. If you feel like changing the setup options, you always can get the menu back with a mouse click on the Setup window icon in the multimedia control panel or by using a keyboard hot key.

Once you've rid yourself of the setup menu, Xine is ready to go. From this point on, Xine does not show the setup menu unless you explicitly ask for it.

SO, WHAT DO YOU WANT TO WATCH?

Right from the start, Xine can play your DVDs and CDs and (for those of you with the technology) your VCDs. All you have to do is put your DVD, CD or VCD into the drive and click the corresponding button on the multimedia control panel. Xine loads the appropriate media driver and starts playing your media immediately.

If hard plastic isn't your thing and you prefer your entertainment in files, Xine easily can accommodate your needs. The Open Location button on the multimedia control panel launches a file selection window so that you can find and select the exact audio or video file you want to experience.

Each file that you select from the Open Location window is added to a Playlist of files. This playlist can name files and something that the Xine developers call Media Resource Locators or MRLs. These MRLs are like Internet URLs; they name a selection by media and location. So, using the



Figure 5. xine Media Selection Buttons



Figure 6. xine Open Location Dialog

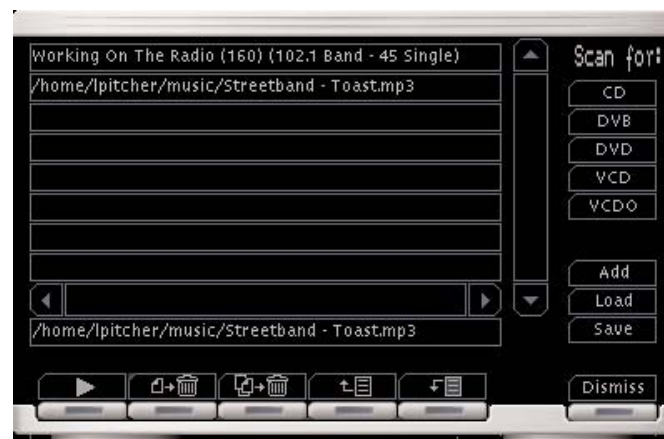


Figure 7. xine Playlist Dialog

Table 1. Some Xine Command Keys

Command	Keystroke
Start	Enter
Stop	S
Pause/Resume	Space
Next chapter	Page Down
Previous chapter	Page Up
Back	Left Arrow
Forward	Right Arrow
Fast	Up Arrow
Slow	Down Arrow
Reset speed	Meta-Down Arrow
Increase volume	V
Decrease volume	v
Mute volume	Ctrl-M
Full screen	f
Xinerama full screen	F
Take snapshot	t
Eject	e
Quit	q

Playlist, you can set up a continuous show of files, DVD chapters, CD tracks and network data streams.

Valid MRLs include the names of local files, in your Linux system's path-naming style:

- file:<path_to_file> for input from a file.
- fifo:<path_to_fifo> for input of the output of another program.
- stdin:/ for input of the output of another program.
- dvd:/[<title>.<part>] for a DVD.
- vcd://[<CD-disk-image>|<device-name>][@[letter]<number>] for a VCD.
- cdda://<track-number> for an audio CD.
- mms://<host>... for input from a network MMS service.
- http://<host>... for input from a network WEB service.
- tcp://<host>:<port> for input from a network service.
- rtp://<host>:<port> for input from a network service.
- udp://<host>:<port><?iface=interface> for input from a network service.

The last three MRL formats are used to retrieve movies or music from Xine servers. As this implies, you can run Xine as a server and distribute your music and movie choices to a network for remote playback. It's all about control. You can control Xine's video and audio playback using keyboard hot keys, control panel buttons or control panel menus. Additionally, for video files, you

can use your mouse to move between and select from the on-screen menu options.

The control panel is fairly straightforward; playback controls are drawn using the universally accepted symbols for Play, Pause/Resume, Stop, Previous, Next and Eject. These controls work as you'd expect them to, both on physical media such as DVDs and CDs and on media files played from the playlist. This window is used for more than merely controlling the playback of your favourite movie or music. From here, you also can reposition playback using a slider; increase, decrease or mute the sound; speed up or slow down the video playback; take a snapshot of the contents of the video window; maximize the video window; hide the control panel; and quit Xine completely.

From the control panel, you also have access to several of the Xine menus, like the Playlist, the Setup window, the on-screen menu navigator and the colour and skins control.

Xine also provides a set of menus as alternatives to the multimedia control panel. If you right-click on the video window, you get a primary menu that provides all the same controls as the control panel.

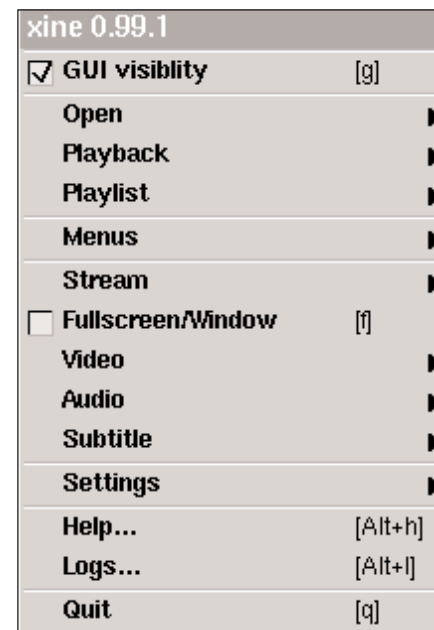


Figure 8. Xine's Primary Menu

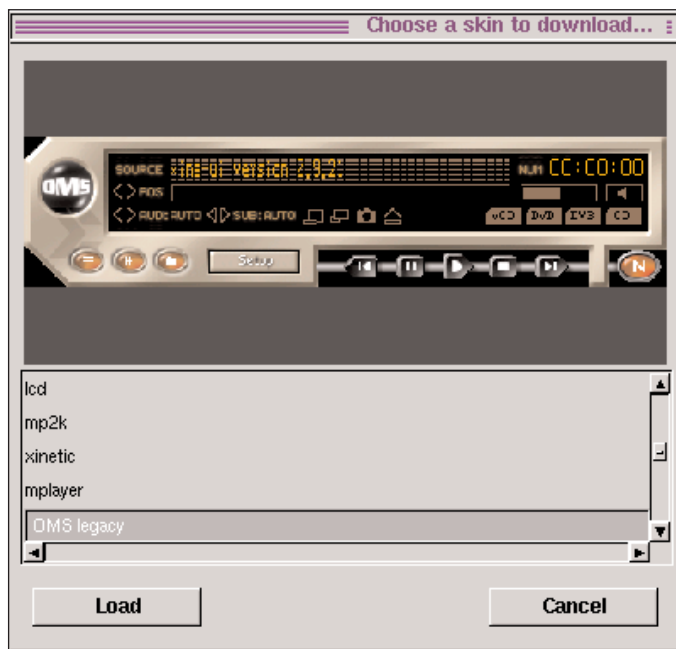


Figure 9. Xine Skin Downloader

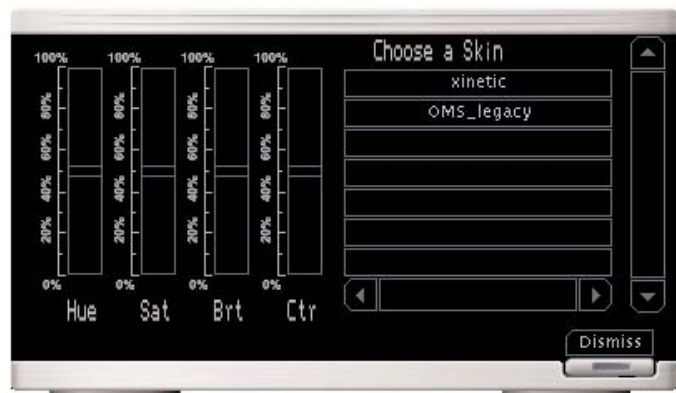


Figure 10. xinetik Control Window for Skin Selection

A left-click on the video window dismisses the menu.

Most of the Xine controls can be executed through the keyboard as well as the mouse. This makes it easy for you to control the playback of your movie or music without interfering with the video portion of your entertainment. If the default key assignments don't suit your needs, you can change them to your own preference through the built-in key map editor. I've listed some of the handier keyboard commands in Table 1; there are more than one hundred keyboard commands, governing all aspects of Xine operation, and the table lists only a few of them. Did I mention skins? Actually, I did mention skins. Skins are components that, when installed, change the appearance of the Xine graphical user interface (GUI). Xine has many different skins that can be downloaded and installed on demand.

From the Settings entry in the Xine primary menu, select the Skin Downloader option, and if you are connected to the Internet, Xine retrieves and presents a list of skins available for your use. As you scroll through the list, an example of the highlighted skin is shown in the preview window. When you find a skin you like, click the Load button, and the skin is downloaded and installed immediately.

Once you have a collection of skins loaded, you can switch between skins without connecting to the Internet. From the multimedia control panel, select the Control button, or select the Video option from the

Xine primary menu. Xine opens a multipurpose window that allows you to adjust some of the video settings (Hue, Saturation, Brightness and Contrast) and select the skin you want Xine to use. Remember, from this window, you can select only a skin that you have downloaded previously, so don't panic if the window shows only the xinetik skin to start.

CHANGING XINE'S SETTINGS

You may need to change how Xine does things. This could be because it can't locate your DVD or CD reader, or because the playback needs to be adjusted. In any case, you want to look at the Setup menu for all these sorts of adjustments. This is the menu we so casually dismissed when we first started Xine, and now we need to get it back with a click on the Setup window button.

What Xine shows us in the Setup menu depends on our expertise level. The GUI tab of the Setup menu has a drop-down box listing the four expertise levels, ranging from Beginner to Master of the known universe, with levels in between. The Beginner level can adjust only certain superficial aspects of Xine: things like which visualization plugin to use for music or whether to use the Stereo 2.1 audio decoder, or which region code to use for DVD decoding and playback.

Advanced expertise gives you more control over the GUI and more audio parameters to tune. It also populates several tabs that are left empty in the Beginner level. From here, you can adjust some of the video parameters, as well as change the devices used for DVD,

VCD and CD playback.

With the Expert level, you can adjust the XVideo video overlay colour key value used by Xine to project video onto the Video window. This becomes necessary if you find that the video signal bleeds into other windows on your desktop. A change to the colour key here makes Xine select a different colour for the Video window background and prevents the video image bleed-through. Expert level also gives you the ability to specify the location of any Microsoft Windows DLLs that Xine can use to decode MMS media streams with. If left at its default, Xine looks in the

CLOSING CREDITS

Xine is not a monolithic application; it both includes other applications and can be included in other applications. For most users, the Xine package that came with your Linux distribution has everything necessary to view videos and listen to music. On the off chance that your distribution doesn't include or supply Xine, you can find it at <http://xinehq.de>. The Xine user interface we've demonstrated isn't the only way to run Xine; a large number of alternate user interfaces also are available from <http://xinehq.de>, ranging from those specifically designed for KDE and GNOME

open-source projects, including liba52, libmpeg2, various ffmpeg decoders, libmad and the FAAD Freeware Advanced Audio Decoder. Your Linux distribution or Xine package will include these packages among its libraries. Finally, you may find that you cannot play DVDs that have been "protected" with the Content Scrambling System. If this is the case, and you live in a jurisdiction that has not outlawed the Open Source CSS descrambling packages, you can download and install libdvdcss from freshmeat.net and your CSS problems will be solved.



Lew Pitcher is Canadian by birth and lives in Brampton, Ontario. He is a career techie working at a major Canadian bank. For more than 27 years, he's programmed on all sorts of systems, from Z80 CPM home computers up to z/OS mainframes. Primarily, he designs z/OS MVS applications for banking services and has incorporated Linux into his development environment.

The Xine user interface we've demonstrated isn't the only way to run Xine; a large number of alternate user interfaces also are available from <http://xinehq.de>, ranging from those specifically designed for KDE and GNOME to character-based ASCII art interfaces that do not need X and plugin interfaces for Web browsers.

`/usr/lib/win32` directory for all MMS codecs, and this might not be the correct directory on your system.

Finally, Master of the known universe level gives you utter and complete command of every tunable parameter that Xine offers. If you go this far, the effect of any change you make is between you and the Xine developers; most of these parameters aren't meant to be changed by a casual user.

to character-based ASCII art interfaces that do not need X and plugin interfaces for Web browsers.

If you run Xine under the X window interface, you need to make sure that your X server supports either the XVideo extension or at least supports the MIT-SHM shared-memory extension. Both the current X.org and XFree86 X servers support these extensions.

Xine uses software written by other

CURTAIN DOWN, HOUSE LIGHTS UP

So, like the hero in the movie, Xine saves the day for Linux multimedia users by giving them easy access to their movies and music. If your leading character is Xine, your movie enjoyment is virtually guaranteed.

Now, if you'll excuse me, I'm going to grab a bowl of popcorn and my laptop, and spend some quality time in Deadwood with "the man with no name". ■

The Cuts and Pastes of OpenOffice.org Productivity

After a lesson on the bare basics of cut and paste, here's how to snip a piece of another application, like a spreadsheet, and embed it into another document where you can continue to treat the snippet as a spreadsheet.

SCOTT STAHL

OpenOffice.org is the mainstay productivity application of the Linux desktop. Proficiency in OpenOffice.org directly equates to productivity in professional life. The main components of OpenOffice.org consist of the Writer word processor, Calc spreadsheet and Impress presentation designer. This article demonstrates how to share information between the different applications starting from the simplest of editing.

The most basic editing function is copying and moving text around in a document. The process of manipulating text is referred to as cutting and pasting, or copying and pasting. Cutting or copying and pasting of text is a simple process. Here is the copy process in a nutshell. Start up OpenOffice.org Writer and open a sample document. If you don't have any sample documents, write a few paragraphs, even if they're just nonsense.

THE HIGHLIGHTS

Highlight some text that you want to copy or move. Here's how to highlight portions of a

document, spreadsheet or what have you. Highlighting, or selecting text, is the way the user communicates to the computer what text to act on. You can highlight text with the mouse, keyboard or both.

If you want to use the mouse, move the pointer to where you want to start the selection. Click and hold the left mouse button, then drag the mouse pointer over the text you want highlighted. The text turns black as you progress. It is important to note that you can drag the mouse forward or backward with equal facility.

Keyboard highlighting is performed using the keyboard, of course. Position the cursor where you want to start highlighting. Use the arrow keys that are found on the lower right of nearly every PC keyboard in existence to move the cursor. Once the cursor is in place, hold down the left Shift key. We use the left Shift key simply because it is easier to use two hands for this operation. Now that the Shift is held down, use the arrow keys to move the cursor. The text will turn black as you progress.

Keyboard highlighting has some neat short-

cuts for quickly selecting text. Hold down the Ctrl and Shift keys while you move the cursor with the arrows in order to select entire words at a time. While holding down the Shift key, use the Page Up/Page Down keys to select large blocks at a time. Use the Ctrl-A key combination to highlight the entire document.

There is a small drawback to highlighting with the mouse. Once you get to the endpoint and release the mouse button, you can no longer increase or decrease your selection. This is where keyboard highlighting comes in handy. Try selecting some text with the mouse, and then use the keyboard to add to the highlighted text. The keyboard also can give you finer control over what is selected.

COPY OR CUT AND PASTE

Given any combination of the above methods of highlighting text, highlight a section of the text that you want to copy. Now, hold the Ctrl key while pressing the C key at the same time (Ctrl-C). The text is then copied to a temporary place called the clipboard. Move the cursor to

where you want a copy of the text. Then press the paste shortcut sequence, Ctrl-V. A copy of the text is now in the new location.

If you want to move text, you have to highlight the text you want moved, cut it from the old location, and then paste it in a new location. Try this with your sample document. Highlight the text you want to move. Then press Ctrl-X to cut that text. You should see the text disappear, but it was moved into a temporary place known as the clipboard. Now move the cursor to a new location where you want to move the text. Press Ctrl-V to paste it there. *Voilà*—you have just cut text from one location and pasted it into another.

CONTROL PLUS

The Ctrl-then-C key combination is referred to in print in many ways, including Control-C, Ctrl-C, cntrl-c or even the obscure ^C. The point is simply that you hold down the Ctrl key and then press the C key, or whatever other key is necessary for your Ctrl combination.

Other key combinations are written the same way. Here is a table describing the cut and paste keyboard shortcuts. The mnemonic at the end may be useful, but it is by no means essential that you memorize the combinations by the sometimes obscure mnemonics (Table 1).

THE CLIPBOARD

You may be wondering what it means that “The text is then copied to a temporary place called the clipboard.” The clipboard is best thought of as a magical place where you can store things and retrieve them later. The catch is that you can put only one thing in the clipboard at a time. As we will see later, the clipboard is

Table 1. Cut and Paste Keyboard Shortcuts

Key Sequence	Action	Mnemonic
Ctrl-C	Copy selected text	Control Copy
Ctrl-X	Cut (delete) selected text	Control eXcise
Ctrl-V	Paste buffered text	Control View
Ctrl-A	Select all text	Control All
Ctrl-Z	Undo last action	Control Zinger

capable of handling much more than merely text, and the clipboard is not limited to OpenOffice.org. Text placed in the clipboard is available to any other application in KDE or GNOME. It must be noted, however, that certain applications cannot handle the clipboard for one reason or another. In that case, nothing happens when you try to paste the contents of the clipboard into an incompatible application.

The primary purpose of cut and paste may be for editing, but the real beauty of the system is apparent only when you need to aggregate small amounts of data from different document types in one place. If you need many different types, or simply a lot of data types, in one document, OpenOffice.org has a Master Document feature that is beyond the scope of this article.

All OpenOffice applications can cut and paste data beyond simple text. In fact, OpenOffice.org is designed to share program functions wherever

it is possible to do so. Because of this function sharing, the way some things get pasted may surprise you.

A common source of data is numeric, like that found in Calc, the OpenOffice.org spreadsheet. If you cut or copy a selection of spreadsheet cells from Calc and place it into another OpenOffice.org application like Writer, what you get looks like a table representation of the spreadsheet data. But what you really are placing in your document is a small version of Calc.

It is important to note that the data you paste in the Writer document is *not* connected in any way to the original document. Any changes you make to the Calc data that is pasted in your Writer document will *not* be reflected in the original source Calc spreadsheet. Any changes you make in the original Calc spreadsheet will not be reflected in the data you pasted from that spreadsheet. Once the Calc data is in the Writer document, it no longer has any connection to the orig-

inal spreadsheet.

You still can manipulate the spreadsheet data you pasted into the document almost as if you were using the Calc spreadsheet. Simply double-click the pasted area of Calc data, and you'll see it transform into a spreadsheet-like mini-window, with rows, columns and cells. Even your toolbars at the top of Writer should change to include Calc tools.

Here is where caution is warranted. When you are finished modifying the Calc data, click outside the area on a blank area of the document or on a spot where there's regular text. This exits the special Calc mode and returns the data to the form of a table. Writer will display the Calc information exactly the way you

Choosing a feature from the Edit menu, or a quick click of the shortcut buttons, does exactly the same thing as the keyboard shortcuts. But wait, there's more!

Look closely at the paste shortcut button on the toolbar (it looks like a clipboard with some paper attached). There is a little green arrow in the top-right corner. That arrow is there to let you know you have more options to choose from. You can access the other options by what is called a long click in OpenOffice.org parlance. Click on the toolbar button, but hold the mouse button down until the options drop down in the form of a menu. Don't worry about trying to get the mouse on the green arrow; it works if you click anywhere on the

- OpenOffice.org Spreadsheet
- GDI Metafile
- Bitmap
- HTML (Hypertext Markup Language)
- Unformatted text
- Formatted Text (RTF)

The OpenOffice.org Spreadsheet choice is the default behavior you see when you do a simple cut and paste operation. Remember, this is the choice that brings all the features of Calc along to

All OpenOffice applications can cut and paste data beyond simple text.

left it. If you scrolled down a column so that no numbers appear in the spreadsheet, no numbers will be displayed in Writer. This behavior is confusing at first, but OpenOffice.org was designed this way to make your life easier in the long run. The important lesson here is that the default cut and paste behavior is actually to bring a part of the application along with the data.

Now, we look at ways to modify the way to paste objects or text. If you have ever used a computer-based word processor, you probably are aware that cutting and pasting can be accomplished by using more than the keyboard or mouse. We have ignored the menus until now because they function a bit differently than people may be used to. Don't worry, the basics are the same as other programs.

icon. The same options are available from the Edit menu by choosing Paste Special.

Sometimes you do not want to bring all the full-blown Calc features along for a few numbers or some other trivial bit of information. Let's look at the Paste Special features that are available for pasting a small column of numbers from Calc into Writer. The Paste Special menu is aware of the type of data on the clipboard and presents only valid options for that data type. Our column of numbers consists of simple text and thus has the most features available for use. Look at the following list of choices on the Paste Special menu. Don't worry right now if some of the jargon does not make sense, or if the list and order varies depending on the version of OpenOffice.org you're using:

your Writer document.

GDI Metafile is probably the most complex thing on the menu. Fortunately, you need to know only what it does, not what it is. When you paste a GDI Metafile into a document, an image of the clipboard contents is the result. The GDI Metafile image is scalable, meaning that you can make it appear larger or smaller, without losing image detail. Pasting the GDI Metafile type works especially well in the Impress presentation application.

The third option, Bitmap, is a rudimentary graphics format. Bitmap graphics do not scale well and are best left at their default pasting size. The benefit of a bitmap is that it is a widely used format. Nearly every other non-OpenOffice.org application can recognize and use a bitmap.

The last three options are all variations on simple text objects. In each case, you get the text with special formatting codes. Hypertext Markup Language (HTML) is the lingua franca of World Wide Web pages. HTML is designed to look good on your computer Web browser screen and may not be suitable for printed documents. The Unformatted Text option is the lowest common denominator. Pasting unformatted text is the exact same thing as typing it in yourself. The last option, Formatted Text, uses another widely known and understood document format called Rich Text Format (RTF). Rich Text is a nice way of preserving the table structure along with the data in our example, so that any cosmetic changes you made to the data in the spreadsheet should appear when you paste the data into the document.

Using one of the features from the Paste Special menu usually gives the effect you desire.

LIVE DATA CONNECTIONS

When you cut or copy data from one application and paste it in another, the copy you pasted is no longer aware of the original data. It has been cut off from its original source and won't change to match any changes you make to the original source.

Data in a document that is still connected to its source is generally referred to as live data. In

OpenOffice.org for Linux, cut and paste does not give you live data between applications, but there are ways to achieve this feature.

The easiest way to work with live data is to use the OpenOffice.org Master Document type. Instead of trying to shoehorn data types to fit, simply assemble them under one roof. You then can work on each piece separately or even delegate author duties to other people. When all the pieces are complete, the whole thing can be printed for a professional appearance. This approach is not at all intuitive, and it has some unfortunate limitations at this point. For example, you cannot make a spreadsheet a part of a master document, so this does not let you insert a live link to an external spreadsheet, such that any change you make in the spreadsheet is reflected in the master document. Master documents currently are designed more for constructing books, where the sub-documents

(chapters, for example) are still only text documents.

A more expert approach to working with live data is to use a database to house the information. OpenOffice.org comes with a multitude of features that allow manipulation of database data. Admittedly, these features are generally for the power users of OpenOffice.org. This topic deserves its own article, as it is more complex.

As we have seen, cut and paste can be as simple as a basic editing feature or a gateway to much more complex documents. We started with the basic features that will allow you to become productive in OpenOffice.org immediately. Using the basic building blocks, we then progressed to using more complex manipulation of data types. Hopefully, seeing these tools will encourage you to branch out beyond correcting mistakes and reordering thoughts to unleash the productivity found in many other OpenOffice.org features.■

Scott Stahl is a professional systems administrator and Linux instructor with more than 15 years of experience. After writing technical documentation all of those years, he finally decided to write things that someone might actually read.

Tip

Some people really need live data, so they can paste a copy of some numbers from a spreadsheet into a document, and expect the numbers in the document to reflect any changes made to the spreadsheet. EIOffice does this extremely well. If you are open to using a non-free office suite in addition to, or instead of OpenOffice.org, visit <http://www.evermoresw.com> to see if EIOffice could be right for you.

Linking Users with Their Data

This article describes how to make your life easier by creating links to commonly used folders and placing these links on your desktop for easy access.

JOHN KNIGHT

One of the most common problems new users of Linux and Windows alike encounter is that it's often hard to manage your folders.

Microsoft attempted to address this problem by creating a My Documents folder where you would store your documents by default, a My Pictures folder and so on. The problem with this approach is that people tend to fill up these folders with dozens if not hundreds of unorganized files, which makes it difficult to find anything. The solution? Organize your files by creating folders within folders, by category.

Most of us like to organize the data we have. For example, you might create a Music folder under which you will organize all your music files (MP3 files, perhaps). You don't want to put all the files in that specific folder, because it will be difficult to find the songs you like best as it fills up. So you create more folders within Music to sort out the songs. Perhaps you will decide to organize your collection by music style, artist, album and file type (MP3, wave file and so on).

Let's say you create a Jazz folder (music type) within your Music folder, and then create a Steps Ahead folder (band name) within the Jazz folder. Finally, you create a Magnetic folder

(album name) within your Steps Ahead folder. Everything is organized neatly, so you can navigate through your music files by genre, artist and album.

Here's the problem. Organization like this creates folders within folders within folders, and it becomes frustrating to get to what you want because you have to navigate through all these folder categories over and over again.

Here's an example of what you may want to do to solve this problem. Perhaps *Magnetic* is your favorite album for now, and you want to listen to it frequently. Wouldn't it be nice if you could get instant access to the MP3 files for that album without having to navigate through all the folders and sub-folders you created in order to organize your files?

It's actually quite simple to do this without destroying or rearranging the way you organized your files. Simply create a folder on your desktop that links to your Magnetic folder.

By placing links to your most common destinations on your desktop, you can cut working time and frustration down by a huge margin. In this article, we look at desktop linking, how it can benefit you and other ways linking can be useful with Linux's two main desktops, KDE

and GNOME.

For the following sections, we use the above example for the sake of easy reading. Once you understand the ease with which you can create links on the desktop that point to deeply buried folders, simply substitute your own buried folder name for Magnetic in our example and create your own links to your favorite folders.

Our goal is to create a link to the Magnetic folder that appears on your desktop, so you can open up this folder of MP3 files without having to navigate through all the folders, for example, Music→Jazz→Steps Ahead→Magnetic.

EXERCISE WITH KDE

Of the two desktops, KDE has the easiest method for creating links on your desktop that point to folders buried under the plethora of folders you may have created to organize your files.

If you want to try this exercise with the sample folder names we are using, here's how to create the set of nested folders:

1. Move the mouse pointer to an empty space on your KDE desktop background. Click the button on the right side of your mouse (right-click) and hold it down until you see a menu pop up.

Point your mouse to the Create New option on the menu. This should make another menu appear. Move the mouse to highlight Folder..., and click the left button on your mouse. A dialog box pops up asking you what you want to name this folder. Name the folder Music (unless you already have a Music folder on the desktop, in which case you'll have to choose another name). Do not type quotes around Music; simply enter the word Music. You never have to type in quotes when naming folders.

2. You now should see a Music folder on your desktop. Click on that folder with your left mouse button. Now we're going to repeat the same process we described in step one. Right-click on the empty space in the Music folder, select Create New and then Folder. Name this folder Jazz. Left-click the Jazz folder. Right-click on an empty space, select Create New, and then Folder. Name this folder Steps Ahead. Left-click the Steps Ahead folder. Right-click on an empty space, select Create New, then Folder. Name this folder Magnetic.

3. Finally, close the file manager window. (You could leave it open, because we're about to navigate right back to this spot, but you should close it if you want to follow the instructions exactly.)

You should be ready to follow the exercise exactly as described in our example. If you are confident enough with the Linux KDE Desktop, feel free to create your own hierarchy of folders with whichever categories you like, and then simply follow the instructions using your own folder names.

CREATE THE DESKTOP LINK IN KDE

1. Open your home folder with Konqueror and navigate your way through the category folders (Music, Jazz and so on) until you get to the folder that you want linked (in this example it would be Magnetic).
2. Make sure you don't navigate into the folder named Magnetic. In our example, you would stop navigating when you reach the Steps Ahead folder, which contains the Magnetic folder. The Steps Ahead folder is called the parent folder to the Magnetic folder.
3. Click on the Magnetic folder with the left mouse button, and keep holding down the mouse button. Drag the folder from the Konqueror window to an empty space on your desktop and then release the mouse button.

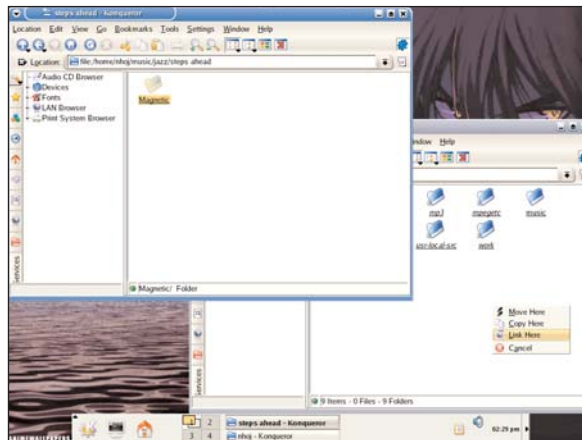


Figure 1. The Ease of Creating Links with KDE

4. A dialog box now pops up with the options: Copy Here, Move Here and Link Here. Choose Link Here, and you now should have a desktop shortcut that points to Magnetic. Now, whenever you want to get to those particular song files, all you have to do is click on the desktop link. It is no longer necessary to wade through multiple folders and categories to get to this album.

GNOME

GNOME has a slightly more difficult method and is covered here in two parts: linking from a Linux filesystem and linking from a Windows filesystem.

1. Open up your home folder with Nautilus, and navigate your way to a folder that is buried—something like the Steps Ahead folder in our example. You should see the Magnetic folder there (or whichever folder you plan to link instead).

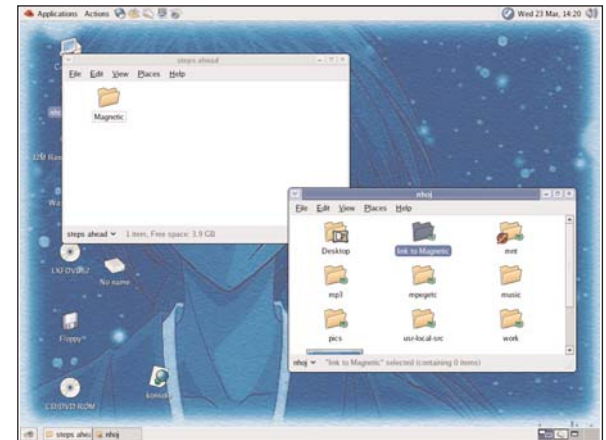


Figure 2. The newly created link before its final destination with Nautilus.

2. Right-click on the Magnetic folder, and choose Make Link from the pop-up menu.
3. Nautilus now creates a new folder called link to Magnetic and places it in the same folder as the original. Left-click and hold down the mouse button, and drag the new folder called link to Magnetic onto the desktop. You should now have a desktop shortcut under GNOME to your favorite album.

FURTHER USES

Linking isn't purely for making shortcuts to common folders on the desktop, it has many other uses too.

Linking to your home directory can be just as advantageous, if not more so, than linking to your desktop. With links in your home directory, you can access your most important files and folders quickly from any window manager, any file manager and even from the command line. Whenever I install Linux, the first thing I do is make home directory links to my most important folders; this makes the process of getting off the ground much quicker and easier.

In order to make a home directory link, simply follow the steps for making desktop links, but open a new window with your home directory and drag the file or folder into your home directory's window, instead of onto the desktop.

LINKING FILES

So far, we've covered only linking folders, or directories (they're the same thing, folder is simply a GUI term for a directory), but you also can link files using exactly the same method described above. Linking files can be useful for all kinds of things, like accessing a file that is used daily or

simply having a file in two places at once, whether it be for working on it from several different places or for having a file exist with two different names. This kind of usage can be handy when it comes to programs and their configuration files, but this is quite advanced and beyond the scope of this article.

RECOMMENDATIONS

When it comes to linking to your home directory, I recommend linking only folders, and only the most commonly used folders at that. Home directories can get cluttered very quickly; moving around in a file manager with a cluttered home directory can defeat the whole purpose of linking in the first place. For files or folders that you use a lot, but only temporarily, try linking them to the desktop instead. If what you are chasing is only a folder or so away, it may not be worth a link and may just be taking up space, but a file or folder that's many folders down the chain is certainly worth linking to.

If you have a file or folder that you are using everyday for the moment, it's definitely worth making a desktop link, especially if it's buried deep under a lot of folders, as mentioned earlier. If this file or folder is likely to be used often, it's worth making a link from your home directory as well. If the link you are making is being accessed under a number of programs as well, then a home directory link is far more useful than a desktop link, as the desktop's directory is harder to get to than your home directory (home is usually the first directory brought up by any program).

By now you should have a number of uses for linking and at the very least, you'll find your hard disk more organized and more efficient. When it comes to linking, Konqueror is certainly the better choice, as linking from a Windows filesystem isn't a

Q&A

Q Why can't I link from a Windows filesystem using GNOME/Nautilus, yet I can do it under KDE?

A In order to make links, Linux uses a method called symbolic linking. However, symbolic linking is supported only under Linux/UNIX filesystems and not under Windows. When Konqueror links a file, it simply tries to make a link at the final destination (like the desktop); when Nautilus makes a link, it makes a link in the same place that the parent folder resides, which you then move to the final destination. If this happens on a Windows filesystem, it can't make the link to begin with and therefore comes up with an error.

problem due to its simple and elegant process for copying/moving/linking. The problem in Nautilus is simply a design flaw that hopefully will be changed in future. GNOME users can still link from a Windows filesystem with other methods though, such as using the command line, or even by firing up Konqueror under GNOME (but these are also beyond the scope of this article). In the meantime, try experimenting with linking as much as you can, and this should take you a step further into making your Linux environment truly comfortable. ■



John Knight is a 20-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 head-banging to his MP3s.

Be the Master of All You Survey: Using Konqueror for File Management and Domination

Konqueror is so feature-rich that it sometimes can be intimidating. Aleen Frisch sorts out the basics and some advanced features with this comprehensive look at how you can manage your folders and files with Konqueror.

ÆLEEN FRISCH

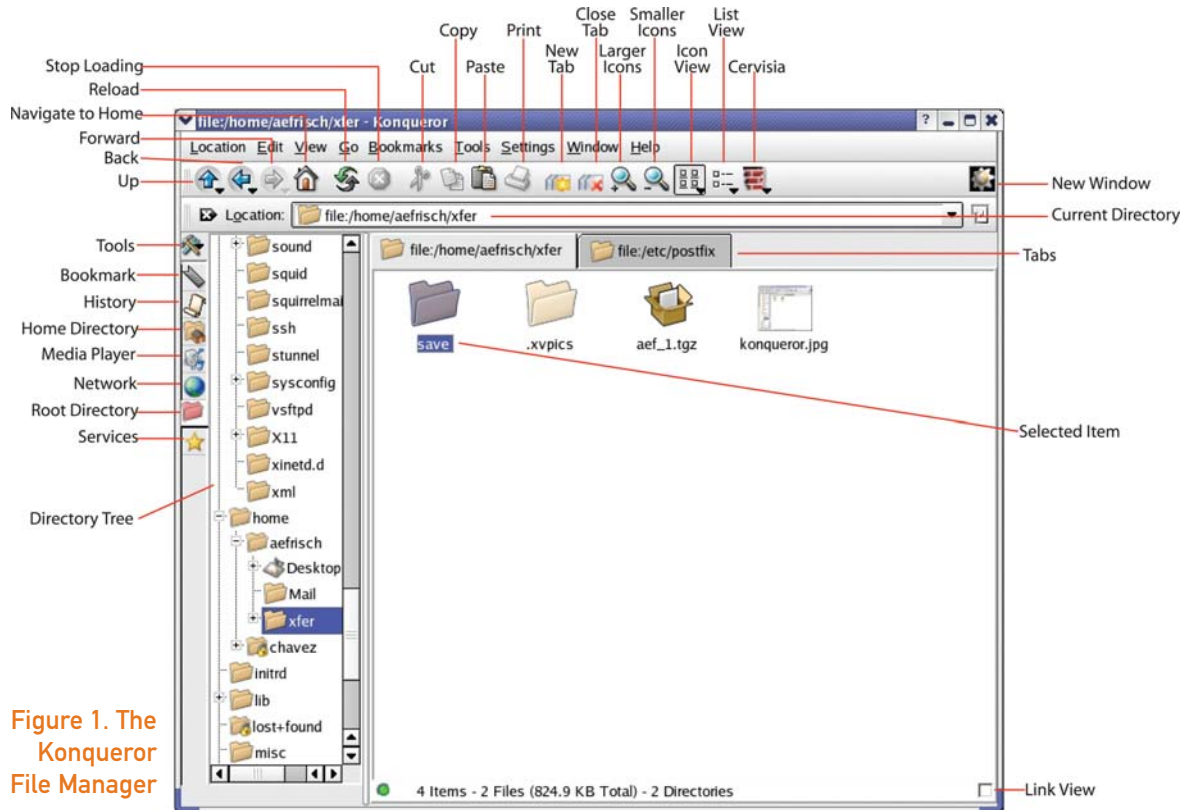


Figure 1. The Konqueror File Manager

Computer users spend a lot of time working with their files: creating and editing them, figuring out where to put them, changing their names, copying and moving them to different locations, getting rid of ones they don't need anymore and so on. Modern user environments typically provide tools for working with folders and files. Linux is no exception, and its Konqueror file manager application is both powerful and simple to use. In fact, Konqueror also functions as a Web browser, thereby providing a single interface for two separate activities (and, in fact, it supports several others as well).

GETTING ACQUAINTED WITH KONQUEROR

You can open the Konqueror application in several ways. For example, you can double-click on the Konqueror or home directory icon typically found on the desktop. Once it is opened, a window like the one shown in Figure 1 appears.

This window is divided into several distinct parts:

- The usual menu bar along the top of the window.
- A series of one or more toolbars underneath the menu bar. In Figure 1, there are two toolbars present: the Main toolbar and the Location toolbar. The Main toolbar contains icons for many common tasks. The Location toolbar displays the directory (folder) whose contents currently are displayed in the window's main area. This toolbar also can be used to navigate to a different directory or Web page by typing in the desired location. Directory paths are preceded by the string file: (just as World Wide Web loca-

tions are preceded by http:).

- The vertical toolbar and folder list display along the left side of the window is known as the Navigation panel. The icons in its toolbar perform various navigation-related tasks, and the somewhat narrow display area can show a tree-like view of the folder hierarchy. The panel can be displayed or not displayed, as desired.
- The main display area in the window shows the contents of the current location, in this case, the files within the current directory. The current display mode is icon view, in which various files and subdirectories are displayed as icons. Other display modes also are supported, as we will see.
- The display area contains two tabs, each of which shows the contents of a different directory. In addition to supporting multiple displays via separate tabs, this area also can be divided into multiple sub-windows, arranged either horizontally or vertically.

The callout text within Figure 1 provides a quick reference to the functions of the many icons found within the Konqueror window. At any time, you can get more detailed help about a window control or section using the Help→What's This menu path or the Shift-F1 key combination. Doing either causes the cursor to change appearance to include a small question mark. At this point, you can click on the item for which you want help, and detailed information about it is displayed.

MAIN TOOLBAR AND NAVIGATION PANEL ICONS

Many of the icons on the Main toolbar should be

familiar to you. For example, the first six icons typically are found in the same location on the toolbar for most Web browsers. In the context of file browsing, a couple of them function slightly differently. For example, although the Back and Forward buttons change the display to the previous/next location as they do when browsing the Web, the Up button changes the displayed directory to the folder immediately above the current one in the directory tree. The Home button displays the contents of your home directory by default (unless you configure Konqueror differently). The Cut, Copy and Paste buttons also function slightly differently. When one or more items is selected and you click Cut or Copy, those items are moved or copied to the clipboard. The Paste button copies any item(s) on the clipboard to the current directory location. In both cases, the items themselves are what is copied and pasted, not merely their contents.

The tab icons create a new tab within the display area and close the current tab, respectively (see the icons labeled New Tab and Close Tab in Figure 1). The magnifying glass icons with the plus and minus signs on their lower left sides change the size of icons within the display area, making them larger or smaller, respectively. The Icon View and List View buttons cause each item to be displayed as an icon or as a line within a list of items.

Most of the icons on the Navigation panel are easy to understand. However, one of them requires a bit of explanation. The icon labeled Root Directory in Figure 1 toggles the display of the folder tree, removing or restoring it with each click. When the display is present, it shows the contents of the entire folder hierarchy on the system.

EXTRA TOOLBAR

Selecting the Settings→Toolbars→Show Extra Toolbar menu item causes an additional toolbar, known as the Extra Toolbar, to be displayed. When Konqueror is being used as a file browser, this toolbar looks like the one shown in Figure 2.

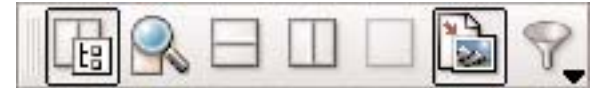


Figure 2. Extra Toolbar

Moving from left to right in Figure 2, these icons open and close the Navigation panel, open the Find File facility (discussed below), split the display area into two sub-windows (arranged horizontally or vertically), close the current sub-window (known as the active view), toggle the display of icon previews (for example, tiny displays of the actual contents of a picture file rather than merely a generic icon for that file type) and open the View Filter dialog (see below).

MOVING AROUND

There are several ways to move to a different directory location within Konqueror. For example, you can use the Location Toolbar to specify the desired location. You also can navigate using the Navigation panel's directory tree view. Clicking on a folder causes the items within it to appear within the display area (more specifically, within the currently active view/tab). The tree can be expanded and contracted by clicking on the minus and plus signs to the left of folder names. The items on the Go menu also can be used for navigation purposes. Several commonly used destinations are included as items within it. The Go menu also contains two useful submenus: a list of Most

Often Visited directories and a List of Recent Places. Finally, you can create Bookmarks for directory locations just as you do within a Web browser for Web sites. The Bookmarks menu provides features for accomplishing this.

BEING IN MORE THAN ONE PLACE AT THE SAME TIME

Konqueror provides three different mechanisms for viewing multiple folders at the same time:

- **Separate windows:** you can open a new Konqueror window using the Location→New Window menu item (or by pressing Ctrl-N). Each window operates independently.
- **Using tabs:** you can have multiple display areas within a single Konqueror window by using tabs. The New Tab item on the Window menu creates a new tab, pointing to the same directory as the current tab, as does the key combination Ctrl-Shift-N or the corresponding item on the Main toolbar. You can close the current tab with Ctrl-W or Window→Close Current Tab or by using the Toolbar icon. You can cycle among tabs from the keyboard with Ctrl-] (move to the previous tab) and Ctrl-[(move to the next tab). Other operations are available on the Window menu.
- **Split views:** you also can divide the display area—whether or not you’re using tabs—to create separate sub-windows called views. You can divide the area into two (or more) horizontally or vertically arranged panes. In fact, you can create arbitrarily complex layouts of view panes, because each time you perform a division operation, it operates only on the active

view. Take a bit of time to play around with this feature to learn how it works. Figure 5 displays a Konqueror window with two views.

CONTROLLING WHAT YOU SEE

Konqueror has many options for displaying the items within a directory. The first main distinction is between an icon view and a list view, and there are icons on the Name toolbar that switch between them. However, Konqueror actually offers two different list view formats, accessible via the View→View Mode slide-off menu’s Info List View and Detail List View items. The List View icon on the Main toolbar uses whichever of these list view forms has been selected most recently. Figure 3 shows the detailed list view provided by Konqueror. For each file and folder within a directory, the display includes the item name, size, type, most recent modification date, permission

settings, owner, group owner and link target if the item is a symbolic link. You can click on any of the headings to sort the list based upon that item. The first click sorts the list in ascending order for that item—that is, alphabetically for names, from smallest to largest for numbers and dates and so on—and the next click sorts the list in descending order.

You also can control whether hidden files are included within the display using the View→Show Hidden Files menu item. If hidden files are displayed, their icons/entries indicate their status by dimming. For example, see the folder .xvpics shown in Figure 1.

Konqueror also includes a much more detailed way of controlling which files are displayed. This is known as the View Filter, and you can open it using the Tools→View Filter slide-off menu or by clicking on the corresponding icon on the Extra

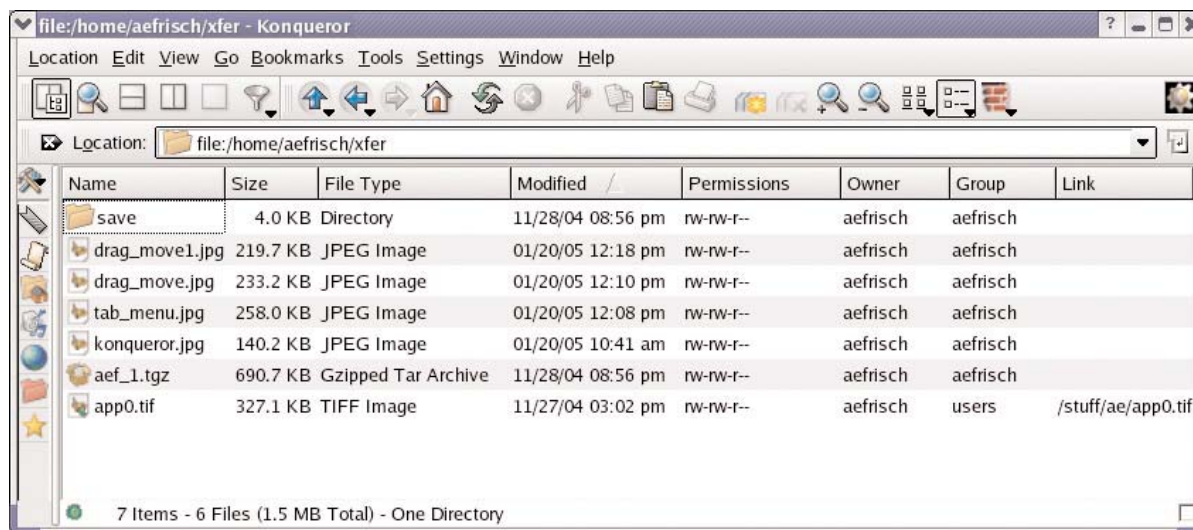


Figure 3. Konqueror's Detail List View

menu. In either case, the Only Show Items of Type menu appears (Figure 4).



Figure 4. Only Show Items of Type Menu

The items in the first two sections of the list shown in Figure 4 consist of all of the different file and folder types that are present within the current directory. In this case, there are three different types of files, including two different types of images, as well as one or more ordinary subdirectories. The Use Multiple Filters item controls whether items of more than one type are displayed; it is checked by default.

You can use this dialog by selecting one or more item types from the list. As you do so, the items in the display area appear and disappear to conform with your specification. The Show Count item within this menu causes the number of items of each type to be displayed within the menu list.

LINKING AND LOCKING VIEWS

When you are using more than one view, you can

choose to link multiple views together so that changing the current directory within one of them causes the same change to occur within the other automatically. For example, you might create two views stacked on top of one another and set them both in the same folder. One of them might display the items in icon view while the other displays them as a detailed list. Linking them retains the same two views whenever you change the current directory in either one.

You can link views using the small check box in the lower-right corner of the view subwindow. Clearing the check box causes the link to be broken.

The View menu's Lock to Current Location item causes the current directory in the active view to be locked, preventing you from accidentally changing it. This can be useful if there is a directory with contents you want to examine often. For example, I frequently create a tab pointing to the directory in which I'm currently working and then lock it.

WORKING WITH FILES AND FOLDERS

Konqueror makes it easy to work with files and folders. In this section, I briefly summarize the most common operations you might want to perform:

- Selecting items: clicking on an item selects it, changing its appearance (see the save item in Figure 1, for example). You can select multiple contiguous items by holding down the Shift key as you click on icons or create a marquee around a group of icons. To select a random collection of icons, hold down the Ctrl key as you select them. You also can use the Ctrl-A key combination to select all of the items within the display.
- View item properties: these can be displayed for a selected item by pressing Alt-Return. Alternatively, you can right-click on an item and then select Properties from the resulting context menu.
- Opening an item: there are many ways to open an item. For example, you can double-click on its icon or select its icon and then press the Return key. If you want to choose which application is used to open the item, right-click on it and choose Open With.
- Creating a new folder: you can create a new folder (subdirectory) within the current directory by pressing the F10 key. More generally, you can create a new item of many different types using the Edit→Create New menu item or by right-clicking in a blank area of the current view and then selecting Create New.
- Renaming an item: the simplest way to rename an item is to click the cursor within its name, wait until the name text is selected, and then type the new name. You also can use the Edit→Rename menu path or the F2 key to perform the same operation.
- Deleting an item: Konqueror provides three different ways of removing a file or folder. Selecting one or more items and then pressing the Delete key (or choosing Edit→Move to Trash) moves those items to the trash (where they remain until you empty it). If you want to delete the items immediately, you can use the Shift-Delete key combination instead (or choose Edit→Delete). Finally, if you want to delete the item immediately and attempt to obliterate all

traces of it from the disk, use the Ctrl-Shift-Delete key combination (or Edit→Shred). This latter operation writes data to those disk areas previously used by the items several times.

- Copying and moving items: Konqueror does an especially good job of copying and moving items between folders. Once again, there are many ways to accomplish these operations. One of the simplest is to divide the display area into two views: one for the current location of the items and another for the location where you want to copy or move them. Once you have done this, you simply can select the desired items within their current location and drag them into the other

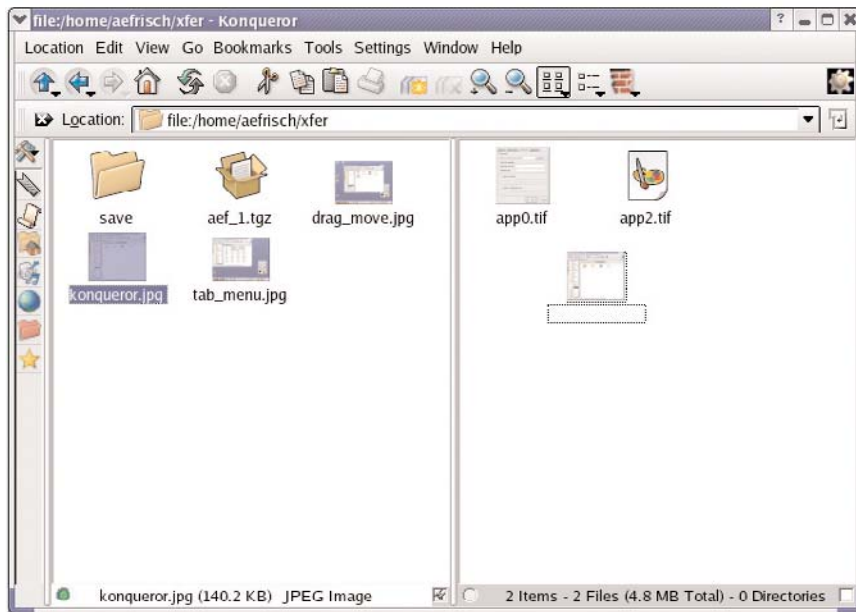


Figure 5. Copying or Moving Items by Dragging

view. This operation is shown in Figure 5.

Once you let go of the items, a menu appears containing the following choices: Copy Here, Move Here, Link Here and Cancel. At this point, you can select the item that corresponds to what you want to do: create a copy of the items, move the items from their old location to this new one, create a symbolic link for each item within the target folder or cancel the operation. There are other ways to copy and move files. For example, you can select the desired items and then press F7 to copy them or press F8 to move them (the Edit→Copy Files and Edit→Move Files menu items perform the same tasks). In addition, you can use the familiar cut and paste functions to move items (using copy instead of cut if that is what you want).

LOCATING ITEMS

Sometimes things get lost. When a file is lost, Konqueror can help. The Tools→Find File menu path (or the corresponding icon on the Extra Menu) results in the dialog shown in Figure 6. This dialog has three panels; the various panels are all displayed within the figure, arranged vertically.

As the panels in the illustration indicate, this feature provides a rich and detailed set of search criteria. You can specify a

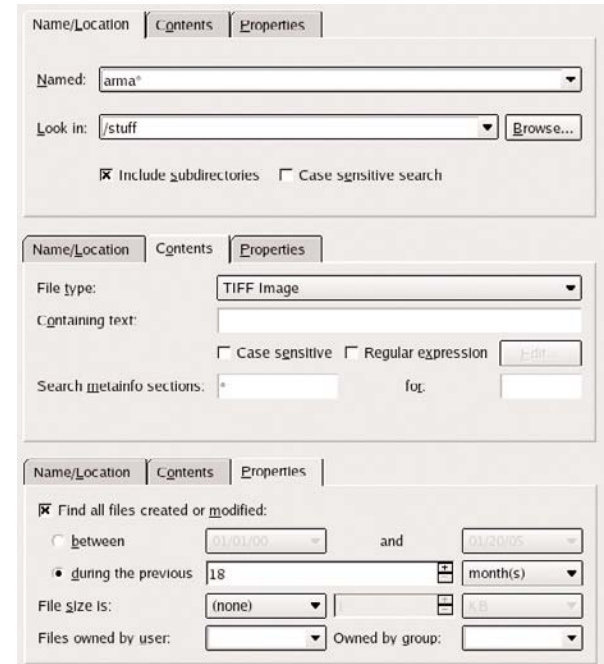


Figure 6. The Find File Dialog

few or as many different attributes of the item you are looking for as you want. If more than one is used, the search looks for items that match all of them.

The Name/Location panel holds the full or partial name of the item that you are looking for, as well as where the search should begin. In the example in Figure 6, I'm looking for a lost picture of an armadillo, so I specify the partial name arma* (the asterisk serves as a wild card). I also include the directory where I want the search to start; in my case, the search starts at /stuff and includes the entire directory tree underneath it.

The Contents panel specifies characteristics

of the item for which you're searching. In my case, I am looking for a TIFF image file. The File type pop-up contains a large number of possibilities, but do you not have to specify the item type at all if you don't want to. The Containing text field allows you to search within text files for a certain string or expression.

The Properties panel specifies the date, size and ownership for the desired item. Here, I'm looking for a version of the file modified during the past 18 months (when I performed the search, I could find only a five-year-old version of the image I wanted).

Once you have filled out all of the relevant fields, you can start the search, and Konqueror displays matching items. In my case, it succeeded in locating the file I wanted, which was deep within the directory tree in a folder called Old_Pix.

EXPLORE MORE ON YOUR OWN

I hope that this introduction to Konqueror is useful to you and that you are now aware of its extensive capabilities in terms of file and folder management. The Quick Reference table summarizes the menu path and key combinations for the most commonly performed Konqueror tasks. Like most Linux applications, Konqueror also can be customized; see the various items on the Settings menu. In addition, don't forget to have fun as you explore Konqueror on your own. ■



Aileen Frisch has been a system administrator for nearly 25 years. Her current responsibilities center on looking after a very heterogeneous network of Linux, UNIX, Mac and Windows systems. She is also a writer, teacher, Webmaster, marketing consultant and occasional database programmer. She has written eight books, including the best-selling *Essential System Administration*, now in its third edition (O'Reilly), and *Exploring Chemistry with Electronic Structure Methods* (Gaussian, Inc.). Aileen is a native Californian living in exile in Connecticut. Her free time is mostly monopolized by her cats Talia, Lyta and Susan, but she also makes time for various mosaic and book arts projects. She can be reached by e-mail at aefrisch@lorentzian.com.

Konqueror Quick Reference

Konqueror Operation	Key Combination	Menu Path
Go to your home directory	Ctrl-Home	Go→Home
Select all items in window	Ctrl-A	Edit→Select All
Show item properties	Alt-Return	Edit→Properties
Rename item	F2	Edit→Rename
Print selected file	Ctrl-P	Location→Print
Copy selected files	F7	Edit→Copy Files
Move selected files	F8	Edit→Move Files
Create a new directory	F10	Edit→New Directory
Move to Trash	Delete	Edit→Move to Trash
Immediately delete	Shift-Delete	Edit→Delete
Delete and erase from disk	Ctrl-Shift-Delete	Edit→Shred
Open new window	Ctrl-N	Location→New Window
Split window vertically	Ctrl-Shift-T	Window→Split View Top/Bottom
Split window horizontally	Ctrl-Shift-L	Window→Split View Left/Right
Remove active portion of a split window	Ctrl-Shift-R	Window→Remove Active View
Create new tab	Ctrl-Shift-N	Window→New Tab
Move to the previous/next tab	Ctrl-[, Ctrl-]	n/a
Close the active tab	Ctrl-W	Window→Close Current Tab
Detach the active tab as a separate window	Ctrl-Shift-B	Window→Detach Current Tab
Display the navigation panel	F9	Window→Show Navigation Panel
Get help on a window item	Shift-F1	Help→What's This

All about Screensavers, and Why You Want to Run Them

Once necessary to protect hardware, today's screensaver is mostly just cool.

MARCO FIORETTI

The first generation of computer screens could be damaged by displaying the same image for long periods of time. In a few days, the image would burn a ghost-like replica of itself into the screen. The image always would remain a distraction in the background.

This led to the creation of screensavers. Screensavers are simple programs that generate a sequence of ever-changing graphics. The fact that the image changes frequently prevents any single image from being displayed long enough to burn a ghost of itself onto the screen.

Advances in technology have made computer screens far more resistant to ghosting. The original problem has almost disappeared: any modern monitor can display the same static image for months before starting to "remember" it.

In spite of this, screensavers are far from dead, for a couple of excellent reasons.

The first reason is that they can all lock a computer, that is, hide all the windows, inhibit the keyboard and be stopped only by typing the password of the user who started them. In some companies, a locking screensaver is mandatory. This helps to prevent janitors, night guards, mail carriers and similar high-tech criminals from stealing precious company intelligence. Even at

home, however, a locked screensaver can be very useful. If you don't believe me, just leave your PC unattended, halfway through on-line shopping, while children are around: it will take only a few seconds to max out your credit card and leave you the dubious owner of items you never knew existed.

The second big reason to use a screensaver is, of course, the same reason we want to have different clothes, cell-phone ring tones or e-mail signatures—to look cool and unique, right?

SOME GOTCHAS

There are some possible drawbacks to using screensavers. First of all, the more graphic-intensive a screensaver is, the more CPU cycles it uses to run. Other programs that you have running in the background might run more slowly (but there is a fix to that).

In some extreme cases, your machine could become hotter, or noisier, if the fans ramp up to cool the processor that is refreshing (ah, the irony) your screen. On a laptop, batteries would discharge more rapidly. Thus, you may not want to use, or temporarily deactivate screensavers, if you have cooling problems, battery limitations or something really urgent to do. In addition, many

DPMS

The standard used to tell a monitor when and how to save power is called Display Power Management Signaling, or DPMS for short. Here's how to make your KDE 3.4 screen aware of DPMS. (The method is similar in earlier versions of KDE, so you should be able to find your way around even if you're not using version 3.4.) Point to an empty area on your KDE desktop and click the right mouse button. Select and left-click on the Configure Desktop menu selection in the pop-up menu that appears. Click on the Screen Saver icon on the left-hand side of the dialog box that appears. Click the box that says Make aware of power management. That's it; you're done. More advanced users can set DPMS options using the `xset` command from the command line. Depending on the distribution, simply look through the documentation for some power- or DPMS-related entries.

modern monitors have some energy-saving capabilities to reduce power consumption. Forcing them to display a screensaver prevents them from going into low-power standby mode. Fortunately, you usually can configure your desktop, such as KDE, to display the screensaver for a while, after which it automatically blanks the screen and puts it in low-power mode.

Last but not least, here's some embarrassment-prevention advice. You can set many systems to random screensaver mode. This lets the system choose which screensaver to start randomly. This is very cool, but think before activating it. Trust me when I say so. I chose random mode once on my office workstation, and it happily started a 3-D rotating model of the Viagra molecule, titled with 128-point font size, right when my boss entered the room.

WHAT IS A SCREENSAVER ANYWAY?

A screensaver is any independent program that can draw something on screen. Normally, screensavers never are invoked directly, and each one has many options to customize its behavior.

SETTING UP SCREENSAVERS IN KDE

The KDE screensaver panel is inside the Appearance/Sub Themes menu of the KDE Control Center. You can preview a screensaver simply by clicking on its name. Each has different options. To check and change the options, click on the Setup... button. To see full-screen what the result will look like, click Test.

In this panel, you also can configure general parameters. This where you tell KDE if the screensaver should be started automatically, after how many minutes of inactivity it should start or whether a password is needed to go back to the

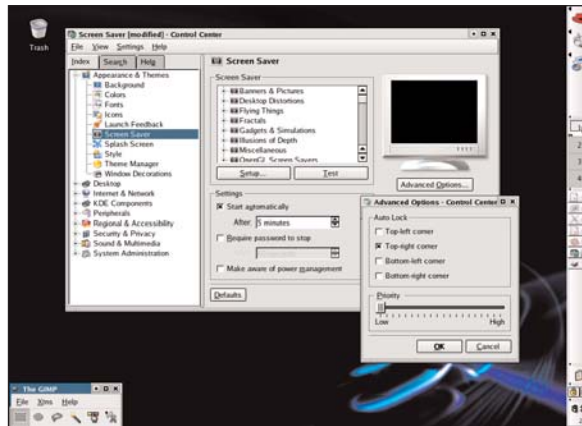


Figure 1. KDE Screensaver

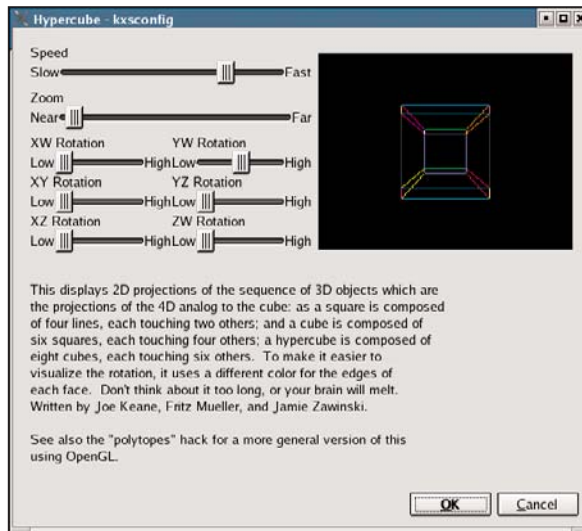


Figure 2. KDE Hypercube

system. You also can set a grace period, that is, for how long, after the screensaver is started, a password is not required to stop it. This allows

you to adjust your PC behavior to match your habits and level of paranoia exactly. For example, often I temporarily stop using the keyboard and mouse to consult some manual or other paper document. Without a grace period, I'd have to retype the password every time the screensaver starts. With the grace period, as soon as I notice that the screensaver started, I touch the mouse to reset it. Of course, if you start the screensaver deliberately, by clicking on the lock icon in the panel, there won't be any grace period.

The default KDE selection offers screensavers of all types. With the several banners, for example, you can type in your own message or inspirational quotation (like "Time to go back to work!"), which will then move across the screen with the color and speed of your choice. The Banners and Pictures section also includes a Slideshow feature. Simply tell it in which folder your picture gallery is, and it merrily cycles through them. There are many more categories waiting for you to discover them. The KDE screensavers are in a separate package called KDE-artwork, which might be missing if you had a custom/minimal installation. Once they're installed, the control center knows which screensaver to list by looking for text files with the .desktop extension in the proper folder. (On the Fedora Core distribution, this is in /usr/share/applnk/System/ScreenSavers.)

This comes in handy when you want to remove a particular screensaver—for example, because it is not suitable for children or a work environment. The only thing you need to do is find the corresponding .desktop file and rename it to something with a different extension. This won't prevent other users from launching the screensaver by hand, but frankly, if they know how to do this, the .desktop trick wouldn't change much anyway.

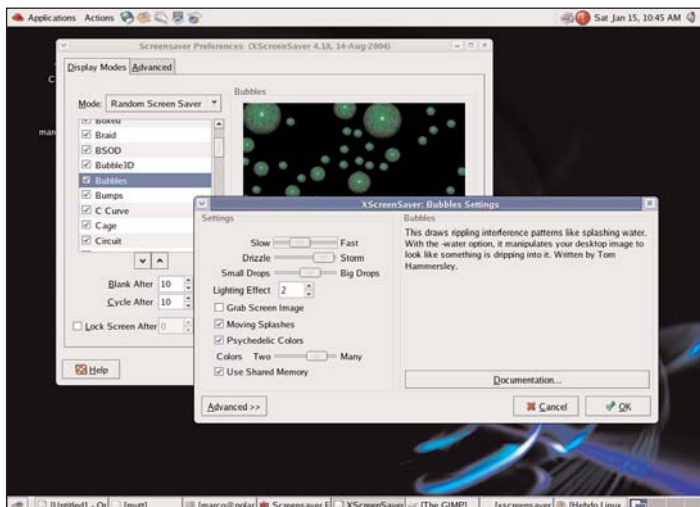


Figure 3. Xscreensaver

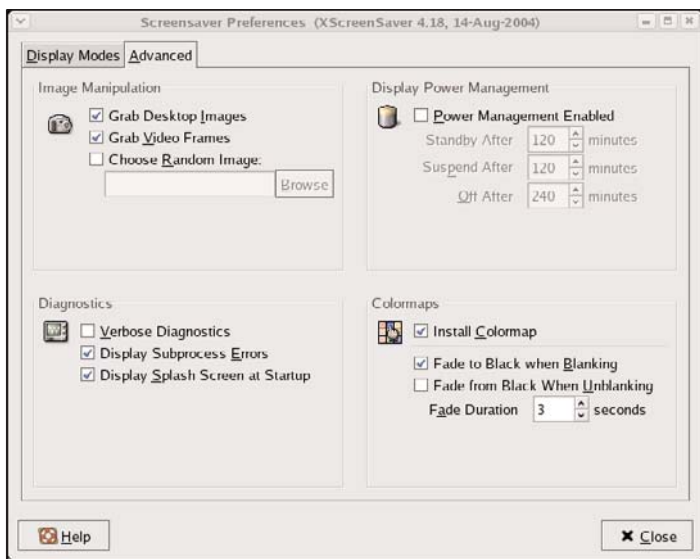


Figure 4. Xscreensaver Preferences

To reenble the screensaver, simply give the file its original name.

GNOME AND XSCRENSAVER

The GNOME desktop uses the popular program Xscreensaver for managing this part of your system. It comes with a lot of screen-savers, including one, called VidWhacker, which grabs video frames from the system's video input and then uses some graphics filters chosen at random to manipulate and recombine them in various ways. Even if it is laid out differently, the functionality of the GNOME interface to Xscreensaver is almost identical to the one in KDE. There is a list of the available screensavers, a preview window and a separate pop-up panel to modify, at will, all the available options for each hack. In GNOME's Xscreensaver, the binary programs are (again, on Fedora Core) in `/usr/X11R6/lib/xscreensaver/`, and the configuration files read by the GNOME Control Center in `/usr/share/control-center/screensavers/`. Beware that this time they have an `.xml` extension. Yes, there is some unnecessary duplication here. Hopefully, it will be removed in future distributions. The procedure to hide an unwanted hack is the

same as with KDE; that is, remove or rename the configuration file that corresponds to the unwanted screensaver.

WHERE TO GET MORE SCREENSAVERS?

For more recent and snappier screensavers check out the <http://rss-glx.sourceforge.net>, <http://www.linuxhotbox.com> and <http://www.uselinuxathome.com/ENkdelook.htm> pages. The latter also has a newsletter that notifies you when new screensavers are available. Oh, before I forget—do you have friends, stuck on Windows, who want (or need) to see that Linux is as GUI as they come? Surf over to <http://www.pippo.com/linux-saver.html>. That program (optimized for 800x600 resolution) will display nice Linux desktop screenshots to users who desperately need them. The author welcomes more contributions! ■



Marco Fioretti is a hardware systems engineer interested in free software both as an EDA platform and, as the current leader of the RULE Project, as an efficient desktop. Marco lives with his family in Rome, Italy.

RESOURCES

Using DPMS: http://grebowiec.net/archives/2004/10/linux_desktop_u_1.html
 Using DPMS to Reduce Your Power Bill: http://linuxreviews.org/howtos/power/xorg_dpms
 Xscreensaver: <http://www.jwz.org/xscreensaver>
 Sunsite Screensavers Section: <ftp://sunsite.unc.edu/pub/Linux/X11/screensavers>

Going Guru: Michael's Top GIMP Tips

It's a new day in a new world on the Linux Desktop. And like every good morning, we want to dive in and get things done. The GIMP makes our life easy, if we just remember a few great tricks of the trade.

MICHAEL J. HAMMEL

This article provides you with a must-have list of tips every GIMP Guru needs. Don't worry about which version of GIMP you're using. All of these tips apply to GIMP 2.0, the latest version and the one most users will see in new Linux distributions. But, most also apply to GIMP 1.2, which has been the staple of Linux distributions for many years. I'll be sure to point out any version-specific issues.

The GIMP can feel intimidating with its feature-rich environment, but nearly every common graphics task is little more than a couple of fast mouse clicks away.

FAST FILLS

Need color in a big way? Drag and drop, my friend. The foreground and background colors can be dragged into any canvas or selection for a quick color fill. Better yet, saved colors can be dragged and dropped too. How do you save colors? The Palette dialog is one place. Open the Palette dialog and drag any color into your canvas for

instant color.

GIMP 1.2 users: the Watercolor tab in the Color Selection Dialog can save colors. Select a color, then click New in this tab to save it to the History boxes. Then, you can drag any History box to your selection or canvas.

GIMP 2.0 users: the Change Foreground/Background Color Dialog has history boxes too. Click the right-facing arrow next to the history boxes to save the current color. Then drag the current color to your selection. GIMP 2.0 has the added bonus of allowing you to drag patterns into any selection or Canvas window too!

FAST EXPORT

The quickest way to turn a layer into an image on its own is to drag it from the Layers and Channels dialog to the Toolbox. This little trick is so easy it doesn't even need an example. Try it with one of your multilayered images, which you've saved in the XCF format, right? The XCF format is the

GIMP's native format, so files saved in this format preserve all the features The GIMP has to offer. It is a good idea to save all your GIMP images in XCF format until you're ready to use them in a Web page or other application, after which you can export the image to whatever format suits you—PNG, JPEG and so on.

FAST DRAW

Straight lines can be drawn with any paint tool. Click once to set one end point. Shift-Click to draw a straight line to the second end point. Use Shift-Ctrl to view lines at offsets of 15 degrees, and then click to draw the line. Primitive shapes need only an outline and a stroke applied. Outlines can be drawn by first setting guides, using the Path tool (GIMP 2.0) or Bezier tool (GIMP 1.2) to create the selection.

FAST LOGOS

So, what about something more complex? How about ready-to-rock logos? The GIMP comes with a

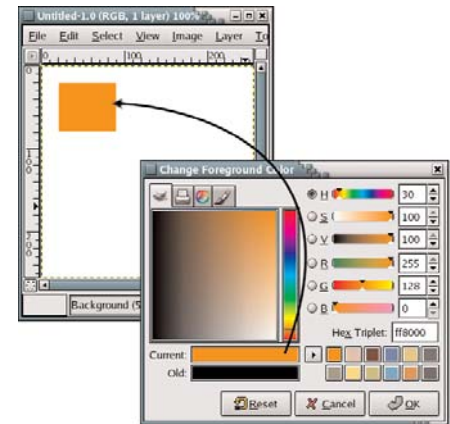


Figure 1. GIMP 1.2 uses the Watercolor tab for color histories to do drag and fill.

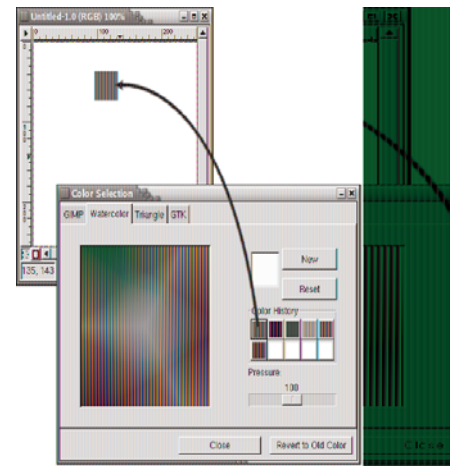


Figure 2. GIMP 2.0 has histories right up front, but it drags from the Current Color bar instead of the history buttons.

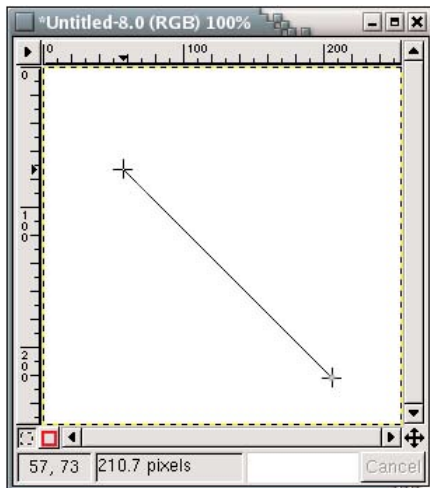


Figure 3. Click on guide intersections with the Bezier tool in GIMP 1.2 to define the shape, then click inside the shape to create a selection. Select a paint tool and brush and use Edit→Stroke to draw the shape.

plethora of logo designs ready to run. All you need to add is some text, a color or two, and a font.

All the GIMP logos are found in the Xtns→Script Fu→Logos menu in both GIMP 1.2 and GIMP 2.0. For the more adventurous, and assuming you can stomach the scripting language (a form of Scheme), all logo scripts can be modified to your own taste.

FAST SHADOWS

The effect with the most impact and the least effort has got to be shad-

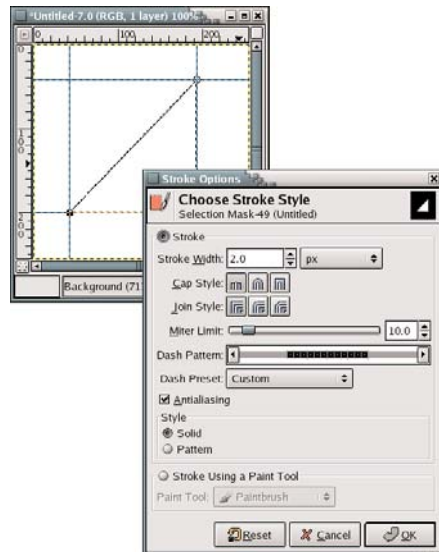


Figure 4. Click on guide intersections with the Path tool in GIMP 2.0 to define the shape. Then click on the Create Selection From Path button. Edit→Stroke Selection is used to draw the shape, using either the current paint tool and brush or one of the user-defined stroke options.

ows. These are found under Script-Fu→Shadow in both versions. The Drop Shadow in particular can take your ordinary graphic and make it stand out in 3-D with only two mouse clicks.

FAST TINTING

The GIMP doesn't do duotone, which is a bummer. But, you can get the next best thing with judicious

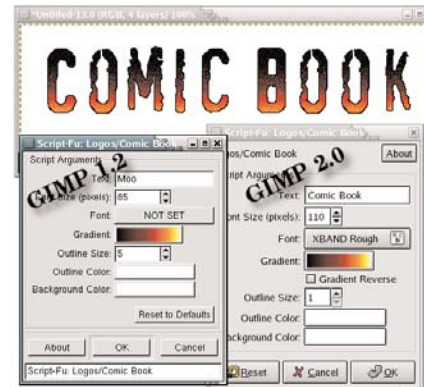


Figure 5. The dialog windows for Logos are nearly identical for GIMP 1.2 and GIMP 2.0. Learning one will get you through the other.

use of blend modes. Mixing some color in various ways with a desaturated image that has been converted to indexed mode and then back to RGB mode gets you pretty close to what you need.

Converting to Indexed one more time after tinting also can enhance the effect, but the final choice depends on the original image and your own artistic flair.

The print version of these images can't be guaranteed to be exactly correct, because CMYK isn't supported in The GIMP yet. But, if you can get the RGB equivalents of Pantone colors, your print results will be close to the Pantone color selected.

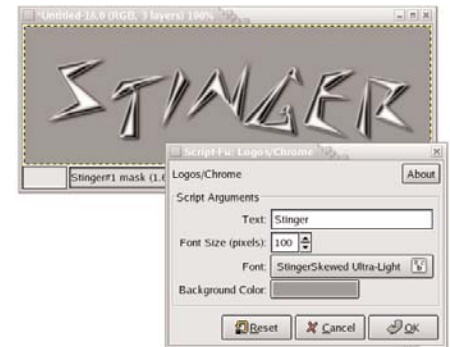


Figure 6. Font selections work basically the same in both versions. Getting fonts recognized by GIMP versions differs, however. GIMP 1.2 looks to the xfs server to provide fonts (try typing `man xfs` for help). GIMP 2.0 looks to FontConfig (see the `fc-cache` and `fc-list` commands for help here).

FAST TESTING

If you're not into building animations with The GIMP, you may not have run across this little jewel. The Animation→Playback filter lets you drag an image from its window onto any other window. You can use this feature to test how an image will look on your Web site by simply laying it over the browser window.

The really nifty part of this is that transparent images work too. No more regenerating Web pages and making sure your sizes are explicitly specified—simply drag the image over the browser to sample it.



Figure 7. Not much has changed with default textures from 1.2 to 2.0. A couple extra textures are provided with 2.0, but you may want to add your own. They can be saved in any directory, but both versions default to looking somewhere under the ScriptFu directories.

FAST PREVIEWS

If you recently uploaded a collection of JPEGs from your camera and want to get a collection of previews from those really fast, The GIMP makes it easy. Select File→Open in either version of The GIMP. The File Selection dialog lists all the images in the right side of the window pane. Click on the top-most entry, then hold down the Shift key while clicking on the bottom-most entry. Finally, click on Preview area. Thumbnail previews are generated for all the selected images.

If you're a bit of a developer, it wouldn't be hard to open these

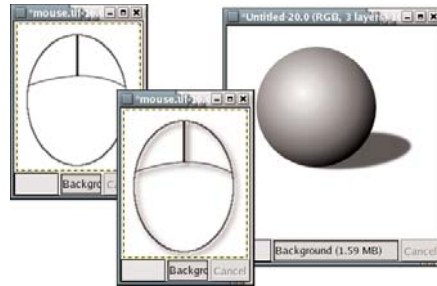


Figure 8. The outline of a mouse takes on three dimensions with the simple addition of a drop shadow, 4 pixels offset and with a 4 pixel blur. A more complex example shows a perspective shadow under a sphere (made with a circular selection and a radial gradient—and nothing more).

thumbnails and create instant contact sheets. Producing a WYSIWYG sheet would require a bit of work—nothing more than a short GIMP Perl or even a ScriptFu script.

FAST GRADIENTS

Gradients are heavily used to simulate depth in images. Draw a circle and fill with a radial gradient—white to black works best—to create a sphere. Gradients, however, use a lot of color. Trying to map one down to the few colors that are known to be Web-safe produces the all too familiar banding—lines of color that destroy the effect gradients provide.

So, how do you fix this problem?

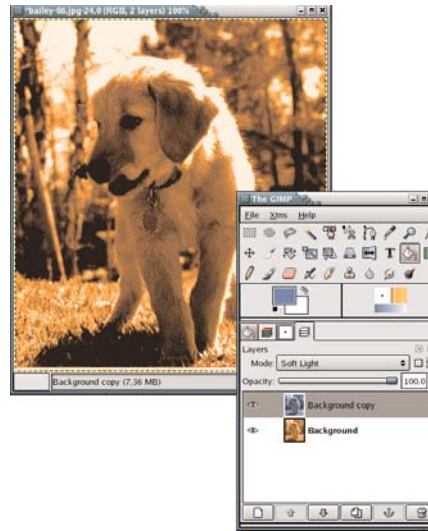


Figure 9. The first method of tinting an image is to desaturate an image and convert it to Indexed Mode. Map the number of colors to a very low amount, perhaps four to ten colors in the Indexed palette. This gets you the duotone appearance and leaves enough grayscale pixels to allow you to tint the image. Change back to RGB mode (so you can properly tint the image). Duplicate this layer one to three times. With each new layer do Ctrl-A to select everything, choose a color, set the blend mode to Color for the Bucket Fill tool and click on the canvas. The gray pixels are tinted. Repeat this on the other layers with other colors, and apply each layer with different layer modes.

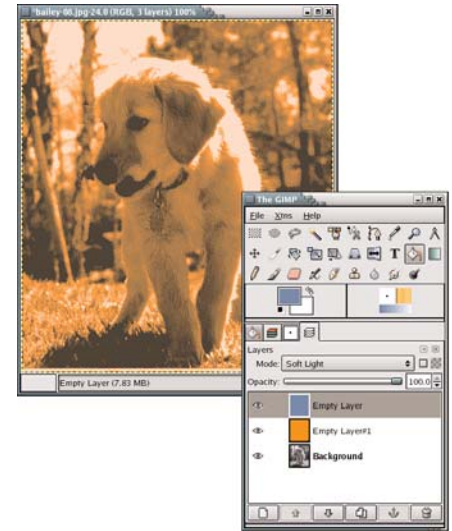


Figure 10. An alternative method to tinting an image is to use a layer that is fully colored and apply it using layer blend modes to the desaturated (but untinted) layer. This method has the advantage of not changing the desaturated layers' pixels and making use of compositing features of The GIMP to achieve the results you're after. Depending on the original layer, modes like Multiple, Overlay, Screen and Hard Light (among others) can help bring out detail in the image.

Nothing to it; add noise. The noise adds some randomness to the gradient that breaks up the banding when you map colors down to the Web palette.

THE RIGHT WAY TO SAY HELLO

Most graphics work flows follow a simple path: acquire, select, edit and apply effects. Acquired images come from cameras, scanners or

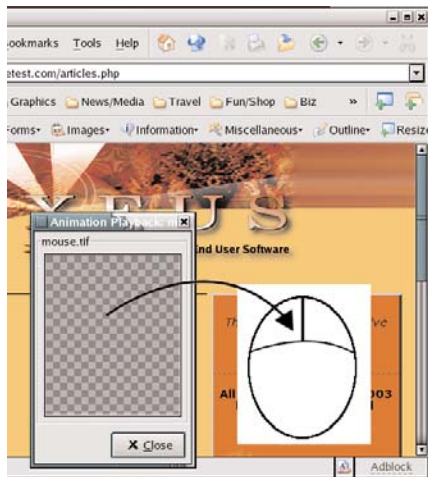


Figure 11. Start with a single layer image. If your image has multiple layers, duplicate the image (Image→Duplicate) and flatten it. Then open Filters→Animation→Playback (Animation Playback in 1.2). The animation playback window shows the bottom layer of your image, which is why you want to flatten it first, at the same scale. Simply drag the image off onto another window.

stock imagery. Once you have the image, you can really start to work. And, the place to start is a really good selection.

THE RIGHT SELECTION

Oval and rectangular selections are a cinch with The GIMP. Simply choose the appropriate selection tool, click and drag—instant selection. But, most selections are not

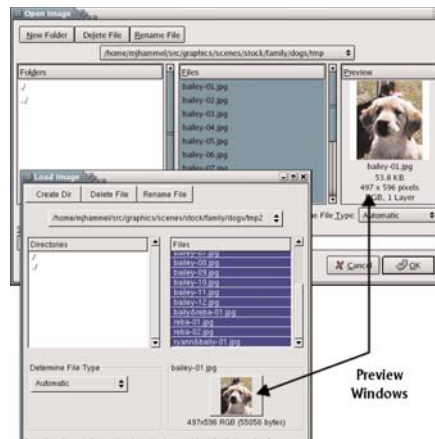


Figure 12. Both versions of The GIMP offer thumbnail previews. The previews are not generated without your request, but click on the preview frame, and the previews are generated for you. This image shows the File Selection dialog from GIMP 1.2 (foreground) and GIMP 2.0.

as simple. They require shapes whose geometry would frighten Euclid (check with your high-school math teacher if you've forgotten that reference). What we need is an easy way to draw the selection, without having to trace fine lines.

THE RIGHT WHITE (AND BLACK)

Photographers have long cursed

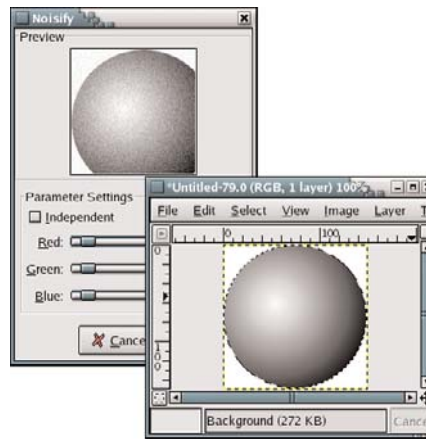


Figure 13. After you've created your gradient, choose Filters→Noise→Noisify. The preview shows noise throughout the preview, but only your selection in the canvas will actually have noise applied. Deselect the Independent toggle and adjust the sliders down a bit—the amount you use will take some experimentation. Remember, Ctrl-Z is your undo friend.

the sun for washing out their photos. But long ago, a simple solution for most of these problems was discovered—white balance. The contrast in a washed out image does not run the range from fully black to fully white. Auto-Levels helps you fix that easily.

Say hello to Auto-Levels.

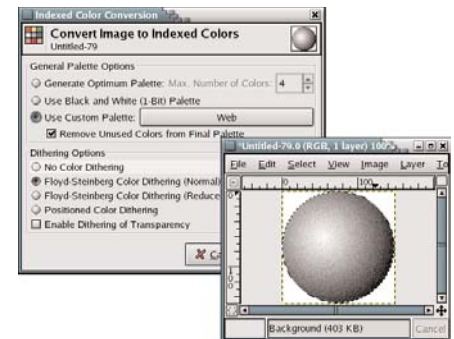


Figure 14. Once the noise is applied, you can map your image to Indexed. Select the Web custom palette. If the image doesn't look right, undo the mapping and the noise, and then apply an adjusted amount of noise and map again.

THE RIGHT DIMENSION

Giving your designs a 3-D look is nothing more than a bucket fill, blur, emboss and sharpen. This four-step process takes all of a minute to perform, though the real trick is in creating the initial shape. Sharp corners, straight lines and long curves work well. Avoid twisty shapes where lines criss-cross each other frequently.



Figure 15. Use the Free Select tool (what Photoshop calls the Lasso) to draw a quick but not so accurate initial selection. Then click on the QuickMask box. This gives the area outside the selection a reddish tint. Drawing with any paint tool on the Canvas window now modifies the area with red tint. In this way, you paint out (with black) or paint in (with white) areas to be included in the selection. Click on the QuickMask button again to toggle back to the marching ants outline of the selection.

GIMP 2.0 EXTRAS

Although the tips so far have been for both versions of The GIMP, GIMP 2.0 has some added features that must be mentioned. The Full Screen Mode (press F11 to toggle it on and off) is highly useful. Dockable dialogs help clear the clutter of windows you can have open at one time—this is some-

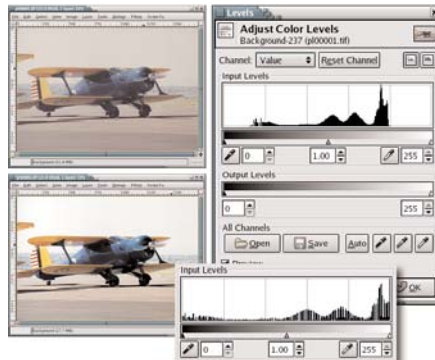


Figure 16. Nearly every scanned photograph requires some sort of touch-up. One of the first things to try is Auto-Levels. Although this doesn't fix every scanned image, it helps the majority of them. Open the Levels dialog (Image→Colors→Levels in 1.2 and Layers→Colors→Levels in 2.0). The histogram at the bottom of this image shows that the distribution of pixels from black to white is more uniform than the original (shown in the full-sized Levels dialog).

thing even Photoshop doesn't appear to have (unless it's in recent versions unseen by this author). All option menus can be scrolled with a wheel mouse if you have one. And, the Show/Hide options for Guides, Rulers, Scrollbars and other features help make your workspace truly yours. ■

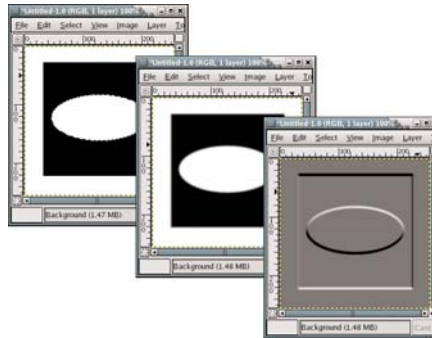


Figure 17. A simple example shows this trick best. In a white canvas, draw a rectangular selection. Fill this with black. Then draw an oval selection inside this area and fill it white. Choose Filters→Blur→Gaussian Blur (RLE) and blur by 3 pixels in both directions. Finally, open the Emboss filter (Filters→Distorts→Emboss), and adjust the sliders to get the effect you need.

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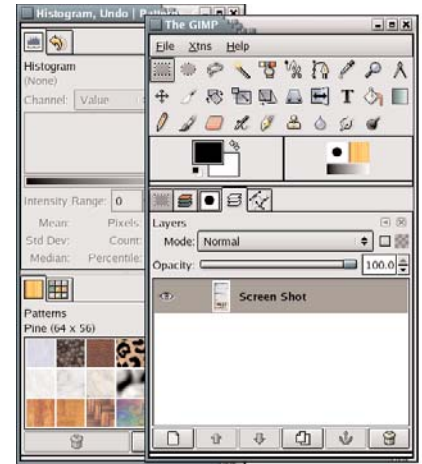


Figure 18. Dockable dialogs are a big boon to space-hungry users.

Adding PDF Power to OpenOffice.org

extendedPDF is a product for people who need more than the OpenOffice.org feature that saves documents in PDF format.

SCOTT NESBITT

Adobe's Portable Document Format (PDF) is a popular way to exchange documents, and with good reason: PDF files are snapshots of your documents that retain all the formatting—fonts, layout, graphics and more—of the originals. If you're an office worker or small business owner who needs to create and distribute electronic documents, PDFs are a great way to go.

One my favorite features of OpenOffice.org is its built-in PDF writer. All you have to do to create a PDF is open a document and select Export to PDF from the File menu. However, the PDFs that OpenOffice.org creates are plain vanilla. They contain no bookmarks, no links and they can grow quite large.

You can get more control over the PDF files you create with OpenOffice.org by using an add-on called extendedPDF (<http://www.jdisoftware.co.uk/pages/epdf-home.php>). There are two versions of extendedPDF for Linux, a free edition and the commercial Universal edition, which contains more features. This review focuses on the Universal edition.

As its name implies, extendedPDF enhances OpenOffice.org's PDF capabilities. Not only can you create PDFs with links and bookmarks, you also can specify the finer details, such as the colors for the links, the quality of the PDFs being output and more. You even can add security to your PDFs.

INSTALLING AND USING EXTENDEDPDF

Installation is easy. You simply run a command-line script, which installs the add-on in OpenOffice.org. The installation script also adds an extendedPDF icon

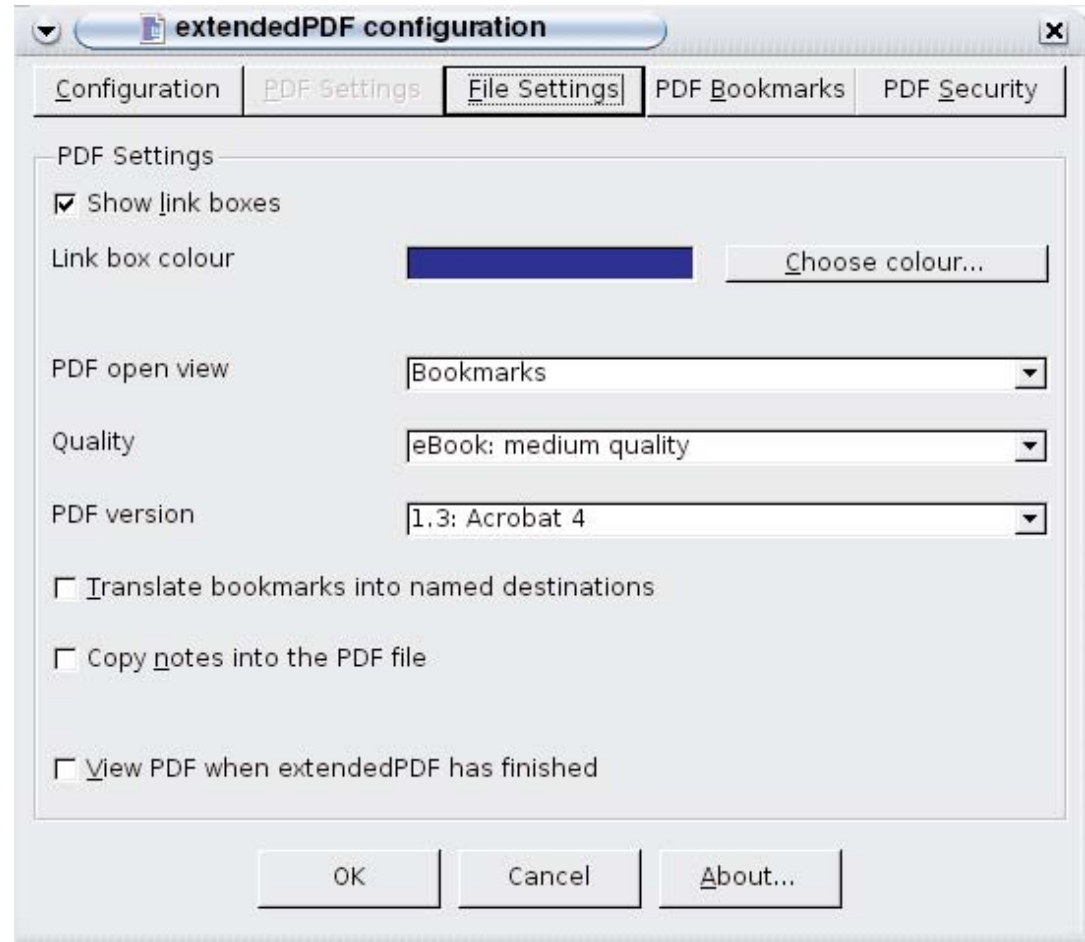


Figure 1. PDF Settings Tab

Although it takes extendedPDF a bit longer to create a PDF, the quality of the resulting file is significantly better than that of one created natively by OpenOffice.org.

to the OpenOffice.org toolbar.

Once it's installed, extendedPDF is simple to use. You merely have to create and save a document, and then click the extendedPDF toolbar icon. The add-on scans your document and opens the extendedPDF configuration dialog box.

The extendedPDF configuration dialog box consists of five tabs that give you considerable control over your output. Here is where you can specify colors for the links, the quality of the PDFs being output (for on-screen viewing, printing, for use as e-books or for pre-press work) and whether your PDFs are compatible with newer and/or older versions of PDF readers. The Security tab lets you add a password for opening the file, and it can restrict others from changing or copying the content in the PDF.

If you've used OpenOffice.org's built-in PDF writer, you'll notice that extendedPDF takes longer to produce a file. That's because the add-on looks at all the head-

ings and uses the information it gleans from them to build a set of bookmarks. Adding security and links also adds to the generation time. Although it takes extendedPDF a bit longer to create a PDF, the quality of the resulting file is significantly better than that of one created natively by OpenOffice.org.

THE POSITIVES

The main advantage extendedPDF has is the control it gives you over your PDF files. It also comes with very good documentation that explains in detail how to install, configure and use the add-on. Depending on the options you use, the PDFs created with extendedPDF are only a few kilobytes larger than those created with OpenOffice.org's built-in PDF writer.

THE NEGATIVES

My main gripe about extendedPDF is the installer. It's a command-line script. In order to get it to install the add-on, you might need to edit the installation script

to point to the directory where OpenOffice.org is located. This is explained in both the manual and the installation script. But, unless you're comfortable with editing scripts, you may need to get someone to help you out.

On top of that, the extendedPDF Universal edition costs around \$38 US at the time of this writing. If you're adamant about using only free software, you might balk at paying that much and stick with OpenOffice.org's built-in PDF exporter.

CONCLUSION

Overall, though, I've found extendedPDF to be well worth its price. The quality of the output is excellent, and the options add much-needed flexibility to OpenOffice.org's PDF capability.

If you're serious about your PDFs, you should give extendedPDF a try. You might find it to be an OpenOffice.org add-on you can't do without. ■

Scott Nesbitt is a journalist and technical writer living in Toronto, Canada, who has contributed articles, essays and reviews to more than 30 publications. You may have even heard of one or two of them. Although he works with a lot of technology, Scott doesn't own a PDA (but he recently got a cell phone), nor does he have a car, any pets or a single pair of khakis.

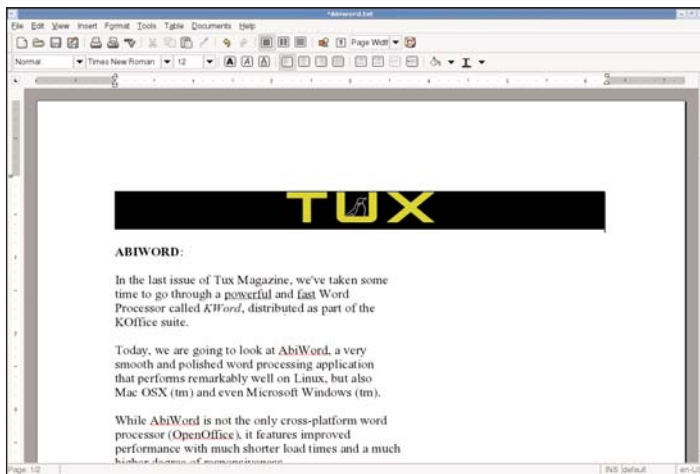
AbiWord

In the last issue of *TUX*, we took some time to go through a powerful and fast word processor called *KWord*, distributed as part of the *KOffice* suite.

This issue, we look at *AbiWord*, a very smooth and polished word processing application that performs remarkably well on Linux, but also on Mac OS X and even Microsoft Windows.

Although *AbiWord* is not the only cross-platform word processor (there's also *OpenOffice.org*, for example), it features improved performance with much shorter load times and a much higher degree of responsiveness.

Recent releases of the application show how much it has evolved since its early days.



Abiword in Action

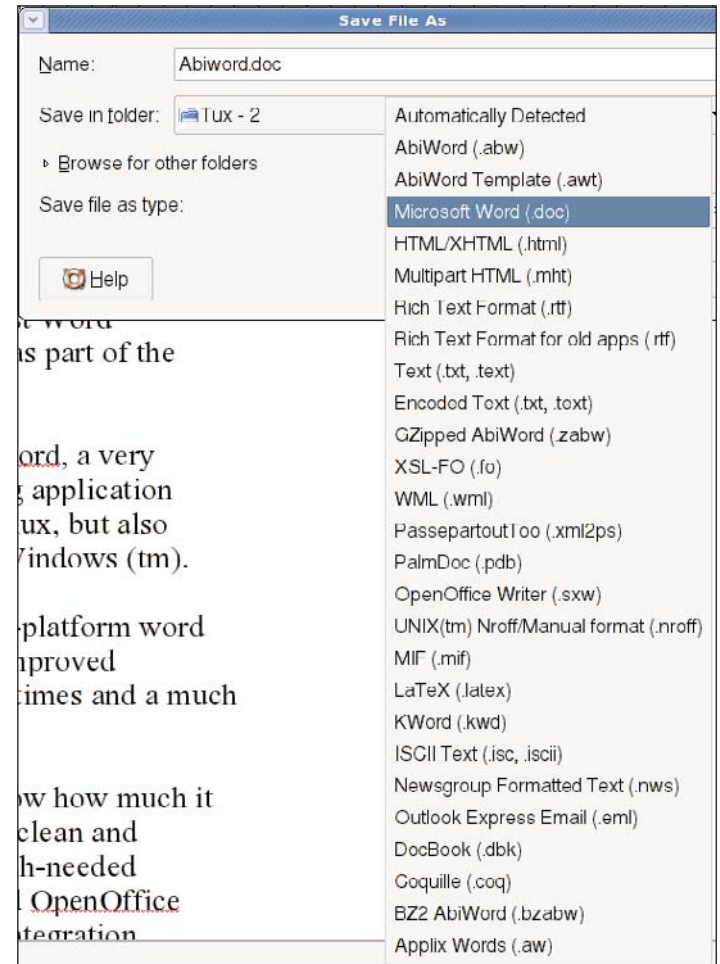
The clean and polished user interface, the much-needed support for Microsoft Office and *OpenOffice.org* document formats, and the brilliant integration of document history and revision control make *AbiWord* a remarkable desktop application, whether for personal or corporate use.

Usability-wise, *AbiWord* offers all the features we have come to rely on in a word processor over the years, such as the usual shortcuts (Ctrl-B for bold, Ctrl-I for italic and Ctrl-U for underline), the ability to insert files (even from different formats) and HTML export (although I could not find a PDF export function).

AbiWord also extends the traditional model by adding some key features that are uncommon in similar applications, such as the mail-merge system that allows you to use a document template and a data source (such as a database or CSV files) to automate the process of creating customized template-based documents in large numbers.

Note that some of the ideas for the next major release of the project indicate that a lot of additional features and enhancements are currently being worked on by the development team, and the weekly project news is a good testament of the development activity around the project.■

—Xavier Priet



AbiWord allows you to save your documents in any of the industry-standard formats.

About AbiWord:

- **License:** GNU General Public License (GPL)
- **Price:** Free
- **Web Site:** <http://www.abisource.com>

Gaim

Instant messaging has become one of the most popular activities on the Web these past few years. Several networks have emerged, offering a standard set of features as well as some network-specific additions, in an attempt to attract a larger share of this booming market.

The number of existing markets provides a healthy level of competition, keeping companies such as Microsoft, AOL or ICQ hard at work to provide users with the best possible experience, but it also adds a layer of complexity for users as they need to sign up for accounts with all these providers and then use proprietary clients for each of these networks.

The Gaim Project is a multiprotocol IM client that allows users to join and use a plethora of networks, such as MSN, ICQ, AIM, Jabber, Yahoo! and many more, through one coherent interface.

Gaim can be used on your GNOME desktop, but also on KDE and even Microsoft Windows, so you can use the client on virtually any environment. Gaim also integrates itself into your taskbar and provides a configuration dialog that allows you to customize the behavior of the application completely.

Additionally, Gaim supports an

advanced plugin system that allows developers to provide additional functionality as they see fit. Many plugins are available, such as Guifications, that allows Gaim to display notifications on the corner of the screen to inform you that someone is typing a message or that someone just logged on (you even can configure which events should trigger a notification).

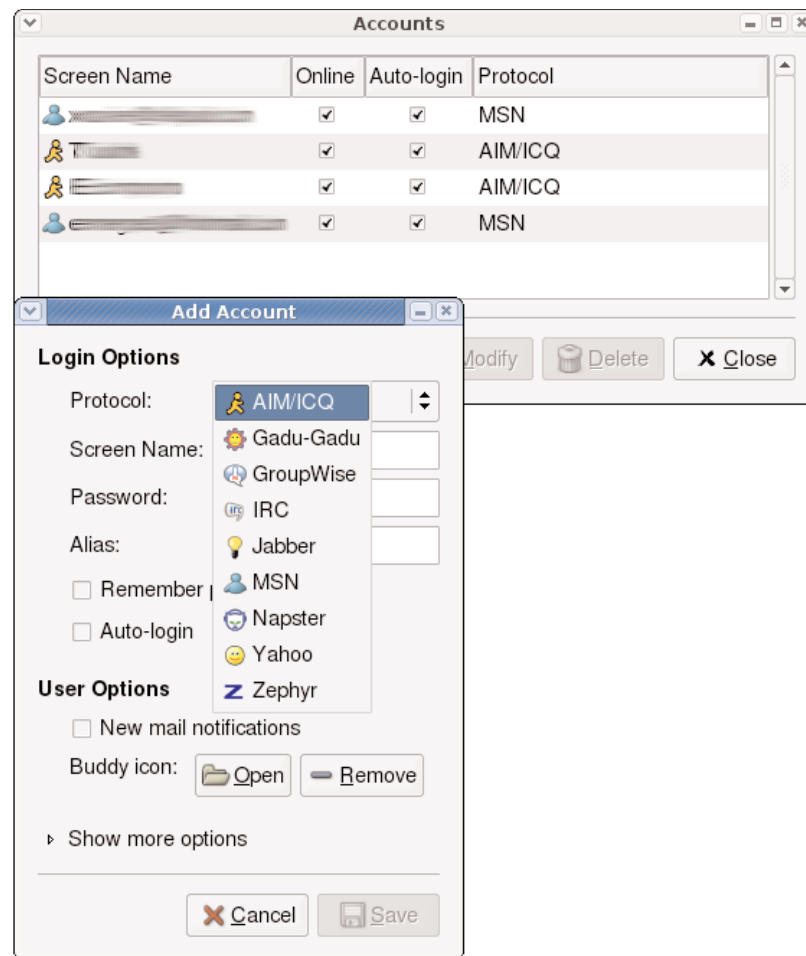
The Gaim developers also have become experts in keeping up with changes in the different networks, thus providing a very reliable product to their users.

On a usability point of view, Gaim provides a smooth interface that, although not very customizable, offers features such as the ability to drag and drop contacts into categories, groups or messages; modify your account information; join chat-rooms; or create buddy pounces, a system that performs custom operations when a certain member of your friends list changes status (it sends a message when a particular user logs on).■

—Xavier Spriet

About Gaim:

- **License:** GNU General Public License (GPL)
- **Price:** Free
- **Web Site:** <http://gaim.sf.net>



You can select from any protocol when creating your account.



Gaim integrates in the GNOME notification area.

Rhythmbox

With digital distribution of music through the Internet becoming more convenient and popular by the day, simple playlists just don't quite cut it anymore. This is precisely the reason why Apple's brilliant iTunes software has attracted so many users by offering a clever way to manage large playlists.

Rhythmbox is a music library manager and player for the GNOME desktop environment (although it does work under KDE as well) that provides similar functionality by organizing your playlist by authors or albums and offering fast search functionality.

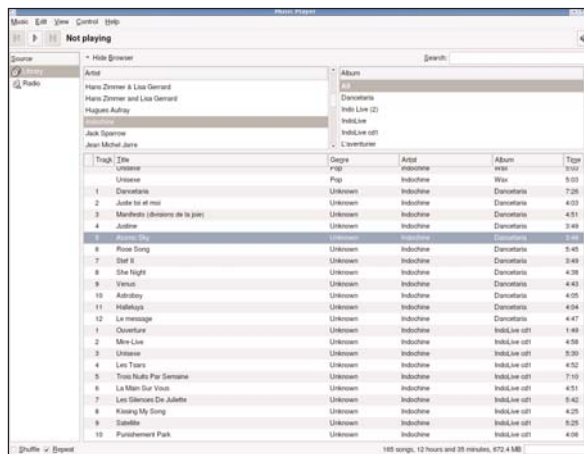
The application is simple to use and visually appealing, and it allows users to play and organize large playlists any way they want, including on-line radio stations.

This is no small undertaking considering the massive size of some playlists featuring thousands of songs, all in different formats and with different naming conventions.

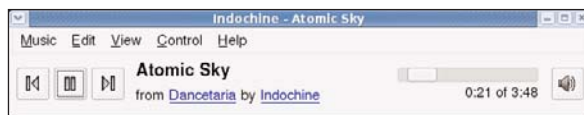
Rhythmbox also offers users the ability to rate specific music files, and this rating can be used to sort songs in order to obtain a listing of your favourite music files across an entire filesystem.

The user interface is intuitive, and none of the important features seem to be missing (taskbar integration, mini-mode, multimedia key control and so on). All these factors contribute to making Rhythmbox a serious player in the modern digital music world.

Another great advantage Rhythmbox has over similar products is its ability to play a wide array of



Managing a Large Playlist with Rhythmbox



Rhythmbox in Small Display Mode

audio formats, through its use of the GStreamer framework, a state-of-the-art media-handling development platform.

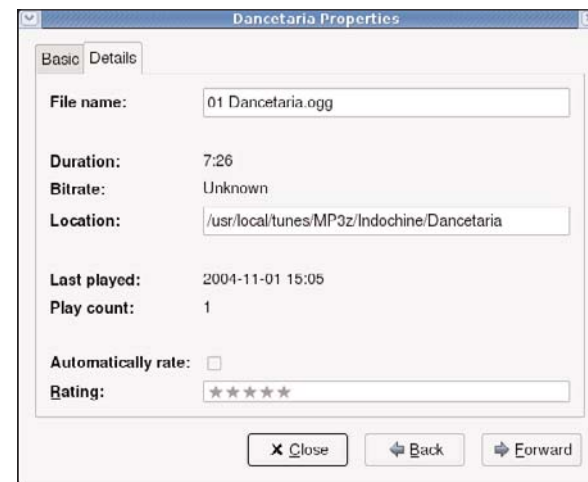
Although the application currently lacks the ability to edit ID3 Tags, the Rhythmbox FAQ on the project's Web site indicates that this feature will be available in future releases, and it recommends the use of the EasyTag product to perform this operation (<http://easytag.sf.net>).

It also is worth mentioning that Rhythmbox supports many playlist formats, which makes importing playlists from other applications quite trivial.■

—Xavier Spriet



Taskbar Integration



ID3 Details Dialog

About Rhythmbox:

- **License:** GNU General Public License (GPL)
- **Price:** Free
- **Web Site:** <http://www.rhythmbox.org>

Totem Movie Player

In our review of the Rhythmbox music library management system, we mentioned that the underlying platform for media playback was GStreamer and that this was a key feature of the application.

Totem Movie Player is a complete media player that also relies on the GStreamer framework as well as the Xine library to play audio and video in a wide array of formats and encodings.

On the major features front, Totem offers a simple interface for video or audio playback, supports network audio and video streaming media as well as a plethora of file formats, audio visualization, CD and DVD playback (with DVD navigation), TV-Out support, LIRC for infra-red remote-controls and full integration to your GNOME desktop.

It also is worth noting that the latest release of Totem offers support for proprietary plugins, which means that plugins should start to appear shortly.

Although Totem uses Xine and Gstreamer as back ends, it offers a much more visually appealing and modern front end than the official Xine user interface, while benefiting from

the excellent reliability and quality of both platforms.

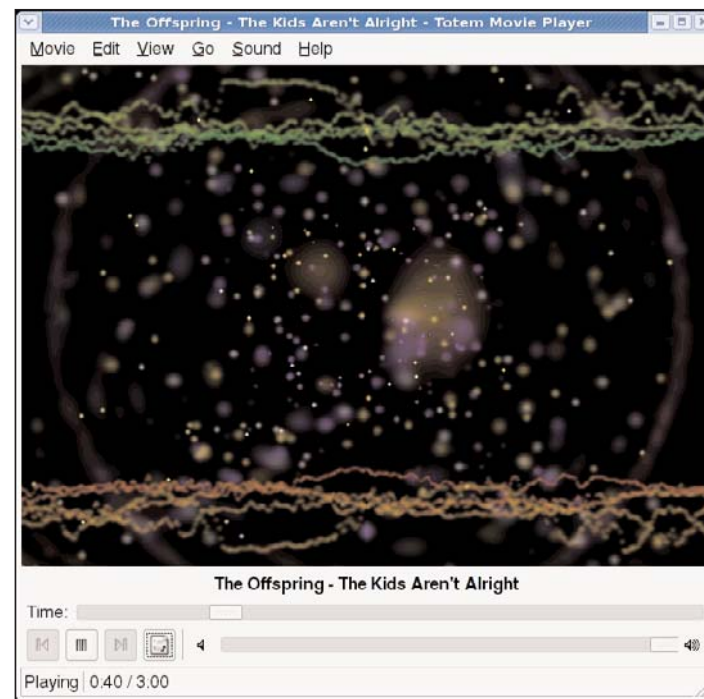
The end-user documentation of the application is pretty straightforward and does a good job of highlighting most major features without going into too much detail.

For the last few major releases of the GNOME desktop environment, Totem has been the default video player, so it is very likely already installed on your Linux distribution. Just in case though, the author has been thoughtful enough to provide binary packages for most major Linux distributions out there, and chances are that your distribution probably provides its own binary package for Totem. ■

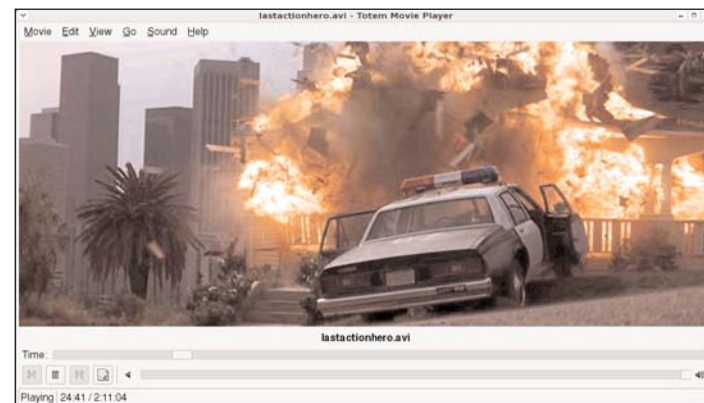
—Xavier Spriet

About Totem:

- **License:** GNU General Public License (GPL)
- **Price:** Free
- **Web Site:** <http://www.hadess.net/totem.php3>



Totem's Audio Visualization



Totem Video Playback

The Light and Dark Side of Linux Multimedia

Linux is taking over the world when it comes to rendering 3-D graphics for today's movies. That translates to good news for the Linux desktop user, but it would be better news if only media companies would get a clue about theft.

NICHOLAS PETRELEY

What do the following relatively recent movies have in common? *The Incredibles*, *Shrek*, *Shrek 2*, *Lord of the Rings*, *Harry Potter and the Sorcerer's Stone*, *Titanic*, *Ice Age*, *Spawn*, *Spirit*, *Stallion of the Cimarron*, *Sphere*, *Peter Pan*, *Bunny*, *Barbie of Swan Lake*, *Joe Fly & Sanchez*, *Los Gringos* and *The Night of the Headless Horsemen*? These are just some of the most notable movies that include computer animation rendered using Linux. In some cases, the movies were rendered entirely on Linux.

There are several reasons why Linux is now essentially the de facto standard platform for rendering computer graphics. First, Dreamworks, the company that turns out one blockbuster hit after another, is using Linux almost exclusively for its back-end render farm. The last I heard, Dreamworks has Linux running on 2,000 CPUs, but that has likely increased. Second, the Linux version of Alias' Maya, one of the most advanced 3-D graphics tools, has matured on Linux during the past few years. Third, even more software is being released for Linux. About a year ago, Amazon Paint System with OpenGL 3D Paint was released for Linux. This popular software has been used in *Monsters Inc*, *The Matrix*, *The Grinch* and others.

The fourth point is obvious. Linux is free. But that wasn't always enough. One of the biggest motives for the large-scale commitments to Linux is the fact that hardware—especially

graphics hardware—is far less expensive than it used to be, thanks in great part to NVIDIA. When companies like Dreamworks had to spend thousands of dollars for each machine or graphics card, the fact that Linux was free didn't do much to offset the cost of building a large-scale rendering farm, especially if Dreamworks had to pay for programmers to adapt existing software to run on Linux. Today, however, both Linux and hardware are so cheap that a thousand-node Linux rendering cluster is a fraction of the cost of any competing solution.

BRINGING IT HOME

By now, you must be wondering why this should be important to you, the desktop Linux user. Call it a long shot, but I'm guessing not many of you have \$500,000 to spend on a professional rendering cluster, no matter how impressed you may be that these clusters deliver better performance for 20% or less of the cost of previous systems.

Aside from all of the media exposure and increased credibility this trend gives Linux, there are other benefits that spill over to desktop users. Movie studios learned quickly that decreasing hardware prices and free Linux combine to lower the overall cost of producing better animation. This puts

pressure on NVIDIA and its competitors to deliver better quality products at lower prices to the studios. Yesterday's professional graphics cards quickly become tomorrow's consumer graphics cards. More important, these cards were designed to run with Linux, so the hardware companies can no longer view Linux as an afterthought when it comes to drivers.

THE MONKEY WRENCH

A couple years back, Sony declared that Linux would be the standard platform for all future multimedia devices. As an aside, I would love to have seen the expression on the faces of the folks at TiVo when they read that press release. TiVo is the company that revolutionized the way we watch television when it pioneered digital video recorders that let you pause, play back and record programs more easily than anyone thought possible. And TiVo did it all with Linux long before Sony jumped in the game.

Regardless, Sony and its competitors (and to a lesser extent, TiVo) are more or less in the position to endorse digital rights management.

So anything they bring to the table as far as Linux is concerned doesn't improve the current absurd patent and legal situation faced by Linux desktop users. We still need groups like the Penguin Liberation Front (PLF) to provide us with the arguably illegal decoding tools to do unarguably ethical things like watch a DVD on a Linux desktop.

What irks my goat most about this situation (if you'll pardon the mixed metaphor) is that the problem of digital multimedia theft has little or nothing to do with things like decryption software provided by underground organizations like the PLF. DVD decryption is a minor step in the process of shrinking a DVD to a size that is easier to download from a peer-to-peer sharing network like Gnutella, which is where the theft takes place.

I am against theft of copyrighted materials that cannot be justified by fair use. But the solutions media providers are exploring are doing more damage to their businesses than good. The DVD issue is a bit complex and deserves its own column, so I'll save that topic for the future. But I think I can make at least

one point by citing an example that involves MP3 files and music.

I recently purchased a CD player for my daughter that plays regular CDs or custom-made CDs with MP3 files organized in directories for easy navigation. I've been going through a nostalgia phase lately where I've wanted to listen to some old jazz, Beatles and Beach Boys songs. So I figured I'd pick up some cheap oldie CDs and make an MP3 CD of my favorite oldies. To my shock, I found that the stores still sell these ancient relics as individual albums in CD form for \$15 each, more or less. I not only refused to buy any of these CDs, I spitefully downloaded a few of the MP3 files I wanted based on fair use, because I owned the vinyl records.

Now, if media companies crammed MP3 files of the complete works of any baby-boomer artist onto a few CDs and sold the sets for \$20 each, I'd buy them in a downbeat. I bet many of you would too. That's matching price with value, which inhibits theft.

The bottom line is that theft didn't start with DVDs, it didn't start with Linux, and it only will get worse with greed-driven digital rights management. ■



TUX Editor in Chief Nicholas Petreley is an author, consultant, programmer, award-winning columnist and Linux analyst for Evans Data Corp.

TUX is the first and only magazine for the new Linux user. In each digital edition of **TUX**, we explore every facet of the modern Linux desktop, providing a new breed of Linux user with the tools and information to make their Linux desktop experience complete.

A new breed of Linux user has emerged, the Linux consumer. **TUX** delivers to this powerful and rapidly growing economic force by offering many advertising opportunities for both its digital edition and its web site.

UPCOMING ISSUES INCLUDE:

June 2005

The LIVING WITH WINDOWS Issue
Is yours a house (or office) divided? With Linux PCs here and Windows PCs there? In the June 2005 issue, **TUX** shows you all you need to know to share files and folders between these different systems. We'll also look at tools that make running Windows on Linux (and vice versa) easy.

July 2005

The MONEY Issue
If money makes the world go 'round, this is a well rounded issue of **TUX** as we explore financial applications in the Linux world. We'll cover home finance programs that provide simple cheque book functions as well as those that do it all. Join us as we explore expense trackers, stock tickers, and business-ready accounting software. Ka-Ching!

August 2005

The EDUCATION Issue

TUX goes back to school in the August 2005 issue. Linux systems are a great solution for cash strapped schools, but they offer much more than inexpensive, stable, and secure systems. Kids will find software to challenge their minds and have fun doing it. From Linux at school, to educational programs, to educational games, it's Linux for kids of all ages.

September 2005

The SWITCH Issue

Finally, it's time to help those in need. Yes, we're talking about people running something other than Linux—those poor unfortunate souls who deal with adware, spyware, and system crashes every day of their lives. **TUX** will look at great Linux business tools, live Linux CDs (to introduce your friends and family), and transitional applications (Linux programs that are available for Windows)

so that even if they continue to run something else, they can at least get some of the benefits of Linux.

October 2005

The LINUX AUTOMATION Issue

Whatever happened to computers making our lives easier and giving us more free time? Maybe it's because they weren't running Linux. This October 2005, **TUX** will show you how to put your Linux system to work while you sleep! Let Linux take care of business and watch over things while you tend to other, more important things. In this issue, **TUX** will look at home security, webcams and video surveillance, maybe even a robot or two.

November 2005

The PERSONAL COMMUNICATIONS Issue

As the end of 2005 approaches, talk is hot again and Linux makes it easy. The year 2000 has come and gone, but picture phones are

finally here, instant messaging is everywhere, free long distance is a reality, and everybody is reaching out and touching somebody somewhere. Get into the instant messaging, Voice Over IP, text messaging, and just plain talking action in the November 2005 issue of **TUX**.

December 2005

The LINUX ON THE ROAD Issue

It's December 2005 and people are on the move, whether to visit family for the holidays or jetting off to somewhere warmer. Either way, you'll need to take your Linux computer along. Don't have one yet? Not sure of the tools you'll need? Let **TUX** show you the best tools for Linux notebooks, network applications, WiFi, Bluetooth, and everything else you need to stay connected when you are away from home. We'll take a close look at personal digital assistants, cell phones, and much more when **TUX** hits the road.

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