TUX

the first and only magazine for the new linux user

LINUX MEDIA CENTER

TUX TURNS YOU ON TO KPLAYER. MASTER THE BASIC AND MORE ADVANCED FEATURES, INCLUDING PLAYING DVDS, OF THIS WIDELY AVAILABLE MEDIA PLAYER.

Amarok is quickly becoming the preferred way to manage and enjoy your music collection on Linux

Using Linux and kdev to watch your favorite television shows on your PC

TUX turns your Linux PC into a video editing workstation with Kino

THIS MONTH, MANGO PARFAIT:
- **Restores Old KMail Features**
- **Gives the Bad News About Linux Database Clients**
- **Takes a Guess on Fedora Wireless Networking**

TUX

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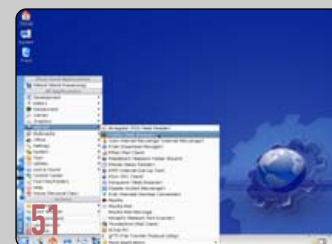- Reviews: Xandros 4, WINE, Cedega 5.1 and Point2Play

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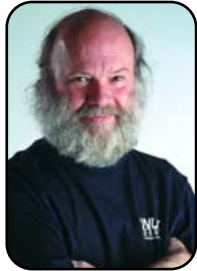
FROM THE PUBLISHER

The Truth about Installing Applications Programs

Simplifying the process for installing application software in Linux using RPM packages, DEB packages and installing from source code. PHIL HUGHES

From reading the comments about the June 2006 *TUX* announcement on our Web site, it seems there is some confusion about what it takes to "install software". So, this month, I take a break from my rambling and offer some down-to-earth information.

First, unlike other popular operating systems including Microsoft Windows and Apple OS X, you have a lot of choices. Think of Linux like you would the expression "Japanese car". Toyota and Mitsubishi are brands of Japanese cars, and they share some things but not everything. You might have a Mitsubishi dealer in your town but not a Toyota dealer, for example. But, they both use the same tires, metric nuts and bolts and lots of other things.

If Linux is like a Japanese car, Microsoft Windows might be more like a Ford. There are models of Fords, but each one is made by the same company. And although other people might make parts for a Ford, the official parts come only from one source.

Back to Linux. When you get a copy of Linux, some software is included in addition to the operating system itself. Generally, this will include hundreds if not thousands of applications programs. It's like getting your car with a large box of clip-on accessories. It is very easy for you to install and use them.

But, just like with your car, there are lots of other accessories available as well. How to get those accessories—that is, additional programs—varies depending on the program and the version of Linux you are running.

Now, I am going to try to convince you that these "Linux accessories" are easier and faster to get up and running than the equivalent accessories for other operating systems. Yes, I said easier, but it requires looking at the total process.

The first step is to locate what program you might want. That part is likely to be equal to the process for other operating systems. That is, you will have some choices and might need to read some reviews. Let's assume you are now ready to get your new program and install it.

The two most common methods to get applications programs for Microsoft Windows is either to go to a computer store or order on-line. The most common way to get applications programs for Linux is to tell the package manager program—a program you already have on your system—to download and install the new software. This is a big win for Linux. That isn't always the answer, but it commonly is.

With a few exceptions, we can divide your choices

into three lists:

1. Software available for easy install for RPM-based systems. (RPM is short for Red Hat Package Manager.)

2. Software available for easy install for DEB-based systems. (DEB is short for Debian package, basically used in all Debian Linux-based distributions, such as Debian, Ubuntu and Linspire.)

3. Software that must be built from the source code.

If either number 1 or 2 is available, you've got that "just tell the package manager" feature to save you a lot of time. With much software, all three versions will be available, but for others, only one or two options exist. In addition, much like a tachometer for a Ford with a gasoline engine will probably not work on a Ford with a diesel engine, there will be cases where software will work only on a particular version or versions of your system. But, it is the job of the package manager to figure all this out for you.

Hopefully, I haven't totally confused you here. Let me get a bit more specific and see if I can keep you awake.

The Kubuntu distribution is one that uses DEB packages. If a DEB package is available for the software you want to install, you will likely be able to install it simply by starting up the adept package manager, entering the name of the package in the search box (or searching for it but that is fairly hard as there are more than 18,000 packages available), and two clicks later it is installed.

A more difficult but not very complicated possibility is that you will need to download the package, generally by right-clicking on the file in your Web browser and selecting where to save it. Then, you start the dpkg command, pointing it at the software.

The first approach is likely to work with more than 90% of the software a *TUX* reader will want to install and the second with much of the remaining software. I could stop here, but I want you to understand what the third option is. You may never use it, but appreciating what it is will lower your stress level. This is using software that must be built from the source code.

All this means is you need to download the program source code and run some development software to build a version of the program for your system. This doesn't mean you need to know how to program or anything about programming.

The source code for a program will include a file usually called configure. This is a program that analyzes what features and software are available on your system and then builds another file called Makefile.

The Makefile contains instructions for a program named make, which actually builds the software.

The usual sequence of events to convert source code to an installed new application on Kubuntu would look something like this (in shell commands you enter in a terminal window):

```
cd wherever_you_put_the_source
./configure
make
sudo make install
```

That's pretty much the worst case for installing new software, and for a *TUX* reader, it is likely you will need to do this 1% of the time or less. So, bottom line, don't panic. A default install of Linux on your system will give you more immediately usable software than on any other type of system, and you will be able to add thousands of additional programs with no more to do than selecting them from a list of choices.

For that other 1%, you probably can get away with offering someone a beverage or even a meal to do the hard work for you. And, remember, you have more than 18,000 programs to play with before you have to give this more difficult approach a try.■

Phil Hughes is Group Publisher for SSC Media Corp.

Slogging through the Murky Swamp of the Digital Millennium Copyright Act

As an introduction to our Linux Media issue, I examine the legal ramifications of using Automatix to add proprietary codecs.

KEVIN SHOCKEY

A few issues ago, a reader named Mark wrote *TUX* to express his concerns about running Ubuntu Linux and the Digital Millennium Copyright Act (DMCA) legal ramifications of using using Automatix. I briefly answered his letter, basically promising to cover this subject in more depth. When I started planning this Linux Media Center issue, I thought it was a perfect fit to include my research in the issue. Before diving into this topic, however, I need to remind everyone that I am not a lawyer, and the opinions that you are about to read are not legal advice. I'll share with you the same advice I got from Phil Hughes, our Publisher, when I asked him about this subject: "If you want to get help on this issue, please seek the advice of a copyright attorney."

Our first stop on this adventure starts with Mark's situation. He wrote in to share that he had installed Ubuntu Linux only to find that it didn't play DVDs or other video files. While researching a solution, he found Automatix, but he also discovered that installing it within the United States would be in violation of the DMCA. After further research, he couldn't find a definitive answer concerning the legality of this software, so he decided to remove Ubuntu and ask *TUX* for help. As I mentioned before, I offer my analysis of this issue here,

but it is not legal advice. To complete my analysis, I first examine the DMCA, then briefly introduce Automatix, and finally, I clear up the confusion about this issue.

DIGITAL MILLENNIUM COPYRIGHT ACT

On our second stop, we enter the murkiness that is United States copyright law. We're stopping here to try to understand the DMCA and blaze a path for our research—which is, from what I can tell, one of the problems. If you've ever read any US laws before, you'll find them prepared for lawyers, by lawyers. This bill is perhaps more difficult to understand than some others because of the seemingly intentional ambiguity of the law. The *Unintended Consequences: Seven Years under the DMCA* document available from the Electronic Frontier Foundation has as a good introduction to the law:

> Congress enacted the DMCA's anti-circumvention provisions in response to two pressures. First, Congress was responding to the perceived need to implement obligations imposed on the US by the 1996 World Intellectual Property Organization (WIPO) Copyright Treaty. Section 1201, however, went further than the WIPO treaty

required. The details of section 1201, then, were a response not just to US treaty obligations, but also to the concerns of copyright owners that their works would be widely pirated in the networked digital world.

Section 1201 contains two distinct prohibitions: a ban on acts of circumvention and a ban on the distribution of tools and technologies used for circumvention. In our particular case, it is the second of these prohibitions that presents a potential problem. Continuing quoting from the EFF document:

> The "tools" prohibitions, set out in sections 1201(a)(2) and 1201(b), outlaw the manufacture, sale, distribution, or trafficking of tools and technologies that make circumvention possible. These provisions ban both technologies that defeat access controls, and also technologies that defeat use restrictions imposed by copyright owners, such as copy controls. These provisions prohibit the distribution of "DVD back-up" software, for example.

And finally, quoting from the EFF document: "A violation of any of the 'act' or 'tools' prohibitions is subject to significant civil and, in some circumstances, criminal penalties."

AUTOMATIX

Our third stop further into this dark mess is Automatix. Automatix (http://www.getautomatix.com) is a script that automatically installs a laundry list of applications, plugins and utilities. As this laundry list implies, there is actually a long list of software that Automatix will install. Everything included in this list is totally legitimate, with most of it being free or open-source software. However, one set of the software is actually codecs that will allow multimedia software to access and play

WHAT IS A CODEC ANYWAY?

A codec is a compression algorithm, used to reduce the size of a file or stream. There are audio codecs and video codecs—examples include MPEG-1, MPEG-2, MPEG-3, MPEG-4, Vorbis and DivX. Codec literally stands for encode decode algorithms. A content producer will use one of the proprietary algorithms to encode a file. In order for us to view or hear a file, we have to use a decoder that will decompress the file into a usable format.

files encoded with a proprietary format. These codecs have been created within the global software development community to replace the actual codecs.

So what's the problem? The problem is that these open-source codecs were written to circumvent the process of actually licensing the algorithms they duplicate. As described above, the DMCA law was created to prohibit circumventing basically anything that protects copyrighted material. Contrary to popular opinion, software is not patented, it is copyrighted (business processes are patentable, which is what some software includes—a patented business process for completing a business function). So according to the provisions of the DMCA, Automatix potentially facilitates the circumvention of proprietary codecs. Obviously, the codecs themselves might also be seen as circumventing the DMCA laws.

CONCLUSION

In our final stop, I raise a torch in the blackness and show readers the options. It should be clear that Automatix, per se, is not the issue. It is using Automatix to install proprietary codecs. So

the question becomes, how do Linux users gain access to the codecs necessary to enjoy the audio and video files they desire? Unfortunately, there are not very many options. Because it is relatively easy to download and install these open-source codecs through many means, you may choose to do so; however, you do so at your own risk. If this risk worries you, make sure you obtain legal advice before you do.

So there are really only two options. The first is the same one Mark chose, go without. However, Mark took it too far and erased Ubuntu. That was certainly not necessary if he did not install Automatix. Unfortunately, this is one of the main reasons many people keep a Windows box around: to play their audio and video files. Fortunately, there is another option. For those that want the added convenience of playing all popular formats, you can purchase a copy of Linspire, Mandriva or Xandros. However, of these three, Linspire offers the most complete set of proprietary codecs. It does not package them all, but the ones it does not ship with the software are available for a fee from the Click-N-Run (CNR) software repository. With Linspire's recent Freespire announcement, it will include many of the codecs in the open-source version and make the rest available through CNR. Linspire can include some of the proprietary codecs, because it has officially licensed the use of the algorithms and can therefore ship the codecs. Many other distributions do not have the resources to license the codecs so they do not include them.

According to Linspire representatives, in recent conversations with leaders of other free distributions, many other distributions are struggling with a way to better address this problem. At least in the meantime, Linspire and Freespire offer a valid, completely risk-free, alternative. Let's hope all of the other distributions discover a way to ship codecs that present no risks to users. When that happens, everyone sitting on the fence waiting for this issue to resolve will be able to complete their transition to Linux and not sacrifice the freedom to enjoy using their computer to view and listen to everything they desire.■

Kevin Shockey is Editor in Chief of *TUX*.

LETTERS

We're Everywhere! Praise from a Log Cabin in Alaska

I find it a little disturbing that so many people think "I just want it to work" means "work just like Windows". I don't want it to work "like Windows"; for the most part, things in Linux work better, but there are exceptions.

It is a problem when upgrading Flash or installing a plugin requires reading several pages and a download or two, with installation at the command line as root, and then having to do it over two or three times to learn the commands required to get it all done, and still find it is "not working". I do the work because I want to learn the details inside the system, but it slows my ability to shift to Linux as my primary or only OS.

It is probably the greatest strength and weakness at the same time. In Linux, it is possible to get right into anything and everything to make things work my way. The bad news is that sometimes I *have* to get in very deep to get something working when I would really rather be doing something else.

Keep up the good work. I love *TUX* for

the information and great presentation. The landscape, full-screen layout is fantastic! I hope that Mango never changes. Her attitude is backed up with solid technical information.

I have read every issue from cover to cover and am going back to re-read them all again.

--
michael, in a small cabin in Alaska

A Linux Newbie Requests a Review of Gentoo Live CD

I am a Linux newbie who figured the best way to learn is to dive in. I did so with Gentoo. It has been a major headache and hassle, as Gentoo is truly the Geek's Linux. However, I think a brief review and discussion of this might be a good idea for your magazine.

The ultimate Gentoo install is custom-compiled for your exact piece of hardware and your exact needs. But you know, if you do not need that extra nth percentile of efficiency, you do not really need to worry about all of the geeky stuff. Gentoo, on its live CD, has come out with an install wizard. They say they did this to

make installation more convenient, not easier. Although it has its problems, it actually does make it easier, *much* easier to install. A few screens with defaults to set up time zones, hard drive partitions, default programs and so on, and you are ready to go. Don't install any of the extras from that wizard is my suggestion, as that has always caused me problems. This is the first release of the wizard, so I expect it will soon improve.

After that, software installation is insanely easy. Let us say that you want to install Apache. Go to a text box, and type `emerge apache`. Come back in a little while, and it will have downloaded the latest production version, compiled it for your machine, and it is ready to configure to your needs and rock on. Same thing with just about any program out there. As a matter of fact, a single emerge command will cause it to go out and update every single program to the latest version, including the Gentoo system itself.

If it needs other dependent programs or libraries in order to run, they are automatically installed. If it doesn't need something anymore, it will delete it. If someone were

to write a simple generic templatable editor for config files, by the next generation of the wizard, it could be an easy-to-use, easy-to-install operating system.

Although not quite ready for the average newbie, it has some great ideas and really is worth at least a short spotlight article.

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Phil Smith

I really like the whole concept of live Linux CDs. It is just a great way to introduce Linux while at the same time, as with Gentoo, gives the opportunity to install Linux from the live CD. You are right, however; Gentoo is not right for most TUX *readers. But, you made me curious, so we will have to check it out. I appreciate your letter bringing this my attention.—Ed.*

An Off and On Linux User Shares Frustration on Hardware Compatability with Linux
I have been an off and on Linux user for several years and read *TUX* regularly. Although I agree with users having choice and so on, I find that the concept of community support is exaggerated. I am unable to get sound in my PII 300, 128MB, Creative vibra 128 sound card in Ubuntu—both Badger and Dapper, and

also FC5. The player shows the sound as playing, the spectrum analyzer works, but there's no sound. This card worked in Red Hat 9. I find no help in any forum—the suggestions, if any, are very basic, such as unmuting the mixer and so forth, but after that, nobody bothers to help. I have found several such problems waiting unanswered. I also find that Firefox is unable to open certain Web sites. Similar experience in the forums.

Linux is great, but to be widely accepted and used, several such problems will have to addressed. In my humble opinion, the various distributions should come together to provide a common installation system (which may not be all that difficult if egos are kept aside) and provide drivers even for less-used hardware. Also it should be kept in mind that not all Linux users have an Internet connection.

--
Srinivas Murthy

On the surface level your comments seem problematic; however, it all depends on your perspective. I see in your comments "it just works"-itis. Although I'm sure your hardware works well for you, it just falls out of the sweet spot of what Linux supports. As unfortunate as that sounds, it is still accurate.

Your hope for one installation system to rule them all is unfortunately an empty hope. It will never happen. I tried to explain in my last editorial that the computer industry has moved on. The diversity available in free and open-source software and the acceptance of what was once known as normal is gone forever.

Ultimately, you are forgetting one important person within your support community. You. Decisions have consequences. Cause and effect. You choose to stay with your existing hardware configuration, that's great. That's your choice, but the expectation that the community always must rise to meet your expectations is misguided. Based on your decisions, it seems the only way the community will be able to resolve your issue is for you to join the community and learn enough until you can get your sound working. Good support must start with the owner of that problem. Much like delegation, you can never delegate the ultimate responsibility.

Finally, just to put this in perspective, there was a time when attempting to install peripherals in Windows was as problematic as what you are currently suffering. For some configurations, I bet it still happens today. When this happens, there is no one within the Windows

community to request help from. I know, I've been there. At least in the Open Source community, you have the ultimate last recourse; you can grab a copy of the source code and try to figure out the problem yourself.—Ed.

Strong Support for Linux Application Installation and a PHP Tool Recommendation

First of all, I thank you for publishing my letter in the June 2006, issue. Canonical has done a great job by deciding to ship free CDs of Kubuntu 6.06. It would be really good if support for MP3 playback had been integrated by default. Anyway, enabling MP3 has been made easier than with the previous version.

Regarding the letter in the July 2006 issue from Mr David Vikstrom requesting suggestions for a PHP development tool, I think Bluefish (http://bluefish.openoffice.nl/index.html) would be a good choice. It has built-in reference manuals for PHP, CSS2, HTML and Python. It also supports several other languages. Vikstrom might like to give it a try.

I also read the letter from Mr Ken. I strongly feel that people must change their ideas about application installation. Application installation is easy on

Windows, but it is easier on Linux. What can be easier than simply selecting the software you want to install and having your OS download, install and configure them for you? That is exactly what distributions like Ubuntu, Kubuntu and Mepis are doing. Of course, longtime Windows users may find it slightly confusing in the beginning, but they should feel comfortable very soon.

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Chandru

A *TUX* Transition Success Story

I just thought I would write to thank you for the great magazine and support that it has provided in my transition. I had tried a couple of distros without much success during the last couple of years, when I decided it was time to make a serious change and go to Linux. So I downloaded SUSE and went about installing it. It installed okay, a lot of things did not work, and I went back to XP. I tried a couple other distros and was about to give up when I discovered your magazine. So I sat down, went through a few back issues and was determined to give it another go. Long story short, I am now the happy user of Ubuntu Dapper 6.06 and have been for the last month. Kudos to you and all your crew. You have great magazine that makes the transition easy. I must say at

this point, I wish I had made the change earlier; Linux just works.

--
Oliver Higgins

Great letter Oliver—thanks for sharing. Sniff, sniff, you made my day.—Ed.

An Experienced Linux User Wants Audible Player and Networking Tools for Linux

First, let me congratulate you on a great magazine. I am not by any means a Linux newbie, but that does not stop me enjoying your magazine and picking up valuable tips.

I use Linux exclusively at home and have only my work laptop with Windows XP Pro, and here was my problem. I will leave work soon, which will mean good-bye to Windows. With this in mind, I had to look at what I used on Windows that I could not use on Linux. Office—no problem. I use OpenOffice.org exclusively, even on my work PC. For e-mail, Thunderbird is my client of choice on XP as well, and ditto with the Firefox browser. In short, I could find only one application that I used on XP that I could not get for Linux. This is Audible, which is an audio book subscription service that I subscribe to. So, I e-mailed tech support and asked when the Linux version was going to be

available. The short answer was not to hold my breath. What could I do? I love my audio books, but it was a matter of principle. I canceled my subscription. It's the only way to make these people listen—hit them in the pocket.

I would like to suggest an article on Smoothwall, the Linux firewall. This product is a must for all small networks. An old headless PC, a couple of network cards and a copy of Smoothwall is all that's needed to secure your home network. Dedicated firewalls always will beat the software versions or the less-than-ideal firewalls built into ADSL routers. It is truly worth the effort, and it's not so difficult, even for people with limited network knowledge.

--
Ian Macdonald

The best solution for the Audible Manager application is to purchase CrossOver Office and run that application within Linux. You also could try Wine, if you would like to avoid the extra costs; however, if a non-gratis application will solve your problem, why not take advantage of it? You also could install VMware player and create a Windows virtual appliance to run Windows and Audible Manager within the appliance.—Ed.

A Reader Asks for Advice on Extending Linux Resources to Multiple Computers for Network and Printer Sharing

I would like to commend you on your efforts with *TUX*; I have been a subscriber since your third issue. I like your mag so much I have downloaded and printed out each edition in color (alright I know better, save the trees, read the mag on the screen). Sorry, but it is such a great read, I can't help myself and enjoy reading it without the constraints of having to sit at my desktop.

I know that I am like many parents in that one computer is often insufficient when you have children who constantly want to use the computer for social networking, homework and listening to music. Many homes have two or more computers. Through my experience, Internet/printer sharing is straightforward in the Windows world for most computer users; however, in the Linux world, in my experience as a newbie, this is not so. I would very much appreciate an article(s) on home networking: connecting two or more Linux computers to a DSL modem and connecting two or more Linux computers to share a printer. I did find a great how-to: "Set up a SUSE 10 Machine as a Router"

(http://www.novell.com/coolsolutions/feature/16579.html), which was an outstanding guide for assisting with the sharing of an Internet connection and more. Unfortunately, I haven't found anything similar for Linux printer sharing, and I figure why use Samba unless this is the easiest way.

Further, the Australian government is so concerned about the proliferation of porn sites and the potential for children to access these sites easily that they have just announced a scheme to reduce the cost of Internet filtering software significantly for home use. I believe an article or how-to guide called "Internet Filtering for Linux—Parents Back in Control" would be a great resource for many.

--
Roger Hawkins

In our May 2006 issue, we covered Firestarter, an easy-to-use solution for your Internet-sharing needs. It also functions as a firewall, as the name might suggest. As the previous article and your letter suggest, beating your home network into submission to complete file and printer sharing can be quite aggravating. I'll add a networking issue to next year's editorial calendar to address these and other problems.

To set up parental filters under GNU/Linux, you should evaluate and research the combination of iptables, DansGuardian and Squid. From the DansGuardian about page: "It filters the actual content of pages based on many methods, including phrase matching, PICS filtering and URL filtering. It does not filter purely based on a banned list of sites like lesser totally commercial filters."—Ed.

A Troubled Reader Needs Help Using Kino

How about an article on using Kino? I am trying it out, but I am having a lot of trouble—capture won't work and so on. Googling the problem shows me that a lot of people are having trouble with Kino: can't capture, getting error messages, not knowing what modules to load (or remove) and so forth.

TUX magazine is great, and I read every issue.

--
Donn

It must be your birthday, because Donald Emmack provides a beginner's look at Kino in this issue (see page 30). —Ed.

Seeking Help for the Little Things

I have used Linux off and on for several years, but I am not a computer expert. Maybe you'd call me a fairly literate computer user. Currently, I am using Ubuntu on two desktop machines, Puppy on a laptop and IPCop as a firewall and SMEServer. I'm quite happy with all of this, and my system works well for me, *but* I have a tremendously difficult time switching completely away from Windows. It's not the big stuff that makes giving up Windows difficult. It's the little things that no one ever seems to address in print.

I have about 700GB of MP3s saved on three external USB hard drives. How do I get my Linux box to read and play these files? Is there a simple program out there that I have been missing, something as stupidly simple and effective as Windows Media Player?

I spend a lot of time in Usenet. Is there anything that is close to being as simple to install and use as Xnews? So far, all of the Linux newsreaders I have tried should have "actively user hostile" appearing on every screen. Pan is probably my worst nightmare. I think I have it installed correctly; it downloads something, but then I search and search but can't find the downloaded file anywhere.

I realize that you're probably more set up to take suggestions from writers about articles they have prepared than suggestions from users wanting to learn, but the big programs are so comparable to Windows that 80% of us will never notice the difference. It's the little things that are the killers.

Thanks for any assistance you may be able to provide in the future.

--
David Raschen

Although not knowing the details, it sounds like your problem playing MP3s is not the player, but it is because you have not added the appropriate codecs (coder/decoder). The rub is, however, that the codecs required to play MP3 files are not openly licensed. They are proprietary licensed. I dive into this sticky problem in my editorial. There are many MP3 capable players; however, unless you are using Linspire, Freespire or another distribution that properly licenses these codecs, you'll have to obtain the codecs yourself. For your RSS newsreader woes, you should check out KNewsTicker and Akregator and Konqueror—of course, that assumes you're using KDE. You are using KDE, right?—Ed.∎

Q&A with Mango Parfait

Mango restores old KMail features, gives the bad news about Linux database clients and takes a guess on Fedora wireless networking.

MANGO PARFAIT

Maybe I need to look for a new boyfriend. Otaku makes fun of me because I change what Anime shows I like. I watch Princess Tutu now. I like the Kinkan-chou town, and I think the story is romantic. Maybe Otaku is upset because I am being more girly. I thought boys liked girly girls. Maybe he is being more American now and thinks I am here to play games with him and bring him pizza and beer. My friend Bunny says I should leave Otaku and marry an armadillo. I think Bunny needs some medicine to get her to stop thinking about armadillos.

I like pizza, but I do not like beer. You think maybe this is impossible? How can someone who does not like beer know so much about Linux? Linux and beer are like sushi and wasabi. You must have both. But I still do not like beer. I like vanilla drinks and chocolate drinks like Yoo-hoo. I think Yoo-hoo is my favorite drink. I like jasmine tea too. Do any of you like tea? Does tea go with Linux? I know it cannot go with Linux like beer but maybe it can be a second choice.

I drink sake when I read your letters and questions. Maybe this makes it harder to answer them, but I like sake. So send more letters, and I will drink more sake. You may not understand my answers anymore, but I will be very happy after many letters.

Q Dear Mango, the July 2006 issue of *TUX* is brilliant; I particularly liked Kevin Shockey's article on the difference between "gratis" and "free" software. At the moment I am very much in the user camp, unable, as yet, to contribute to the ideals.

In your introduction you say "I am surprised to get many questions from people who run Windows and Linux. Why are you running Windows?" My question, in return, is how do I replace FoxPro? I need a full relational database. I have tried OpenOffice.org but cannot seem to achieve anything other than a flat file let alone "one-to-many" and "many-to-one" relationships. I have gotten some very limited functionality out of MySQL running from the command prompt, but it seems so complex to install and set up. I am just trying to install PostgreSQL, but again it seems very complex to get started. Is there anywhere I can see working examples beginning with installing and creating a simple flat file and then gradually introducing more sophistication in fairly gentle steps?—*Stephen Hughes, Surrey, England*

A Dear Stephen Hughes, there is no reason to be surrey that you live in England. I hear England is a nice place. Be happy to live there.

OpenOffice.org 2.0 has a database program that is

supposed to be for average users. It can use MySQL and other databases, but you do not have to run MySQL to use the OpenOffice.org 2.0 database. It is easier to let OpenOffice.org use its own databases.

You do not have to make flat files with OpenOffice.org 2.0. You can make bumpy files, pointy files or any other shape you like. Okay, I am teasing you. But you do not have to make flat files. You can use OpenOffice.org to make tables and then make forms that use the tables in a one-to-many relationship like you say.

I found a sample of an OpenOffice.org one-to-many

Figure 1. Sample One-to-Many Data Entry Form

database and form on the Web. Figure 1 is a screenshot of the data entry form.

I chose a sample form because it is too hard to make one. I think the OpenOffice.org database program has all the features you will want, but I do not think it is easy to use these features. Maybe you can learn how to use it. I know I can learn how to use it, but I do not want to learn how to use it. I am a genius, but I refuse to use programs designed to be hard to use. It is not the way computer programs should work. If programmers are not going to use the power of a computer to make the program easy to use, why do I want to use that program? I can do less work and save my data on paper.

Kexi is a a much easier-to-use database program for KDE. It works more like Microsoft Access. I wish I could tell you to use Kexi. I do not recommend Kexi for now. It can do one-to-many table forms, but it is a stupid program. You cannot even make list boxes in your data forms. It also has many bugs. But, the programmers are making it easy to use. Maybe someday when Kexi grows up I can recommend it.

Q **Why does upgrading a wireless network card cause so much pain? I am running a Dell laptop with an Intel Pro/Wireless 2100 internal wireless card. I have installed (and updated) Fedora Core 5 and have worked through all of the setup issues (including ntfs), except the wireless. I connect to two different networks that each require WPA. Isn't there a straightforward procedure describing how to find out what I have, uninstall the bad parts and install the good? There seems to be a lot of versioning issues with everything I read, plus having to go to multiple sites to get drivers/firmware. Perhaps I have read too much. In the meantime, it is just easier to hook up the leash and forego the wireless.—*Cliff***

A I do not know why Fedora Core 5 does not see your wireless card. I have the same wireless card in a laptop, and Ubuntu and Kubuntu see this card and help me install it when I upgrade.

I think Fedora Core 5 has the driver for this card. You can get a driver for this card from other places if you think maybe the Fedora driver is missing or does not work. Look at the page http://atrpms.net/install.html to find how to set up Fedora Core 5 to use ATrpms repositories. I tell you to go to this page instead of giving instructions on how to use ATrpms, because I do not know if you like to use Yum, apt or other types of installers for Fedora Core. This page tells you
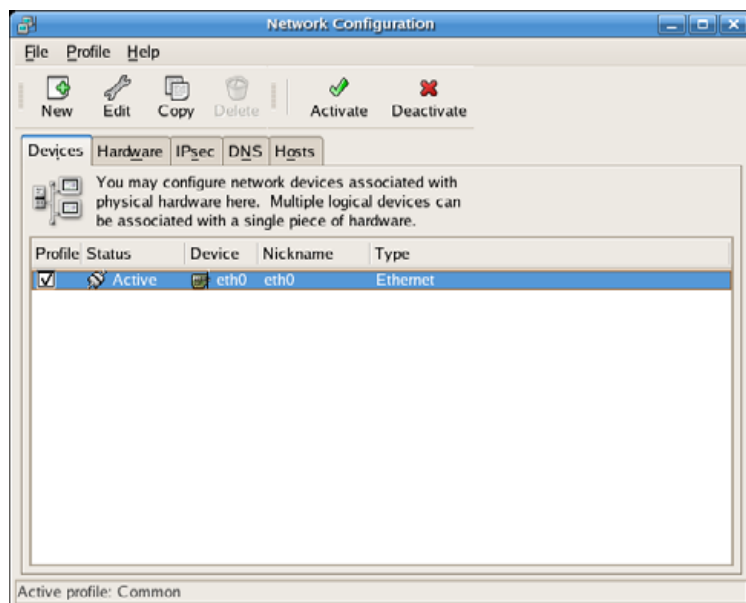
about all of them. Set up your Fedora to use this repository. If you think you do not have the driver, install the package ipw2100 now. I hope the installer you like to use knows which version to get because you need the version that works with the kernel you are using. I think it is very likely your installer will get the right package, so do not worry. But like I said earlier, I think Fedora 5 has this driver and you do not need to install a new one.

Maybe Fedora does not see that it has a module that matches your wireless card, so it does not install the module. Maybe you need to install the module yourself. You can do that as
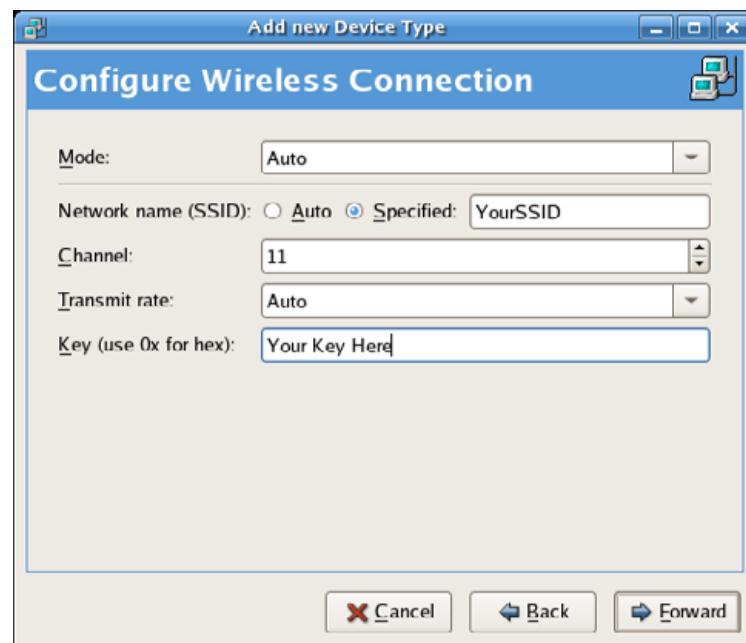
Figure 2. GNOME Network Configuration Tool

Figure 3. Wireless Configuration Dialog

the root user with this command:

```
# modprobe ipw2100
```

Fedora Core 5 is a wacky distribution. It has the module you need, but it does not include this card as a choice when you use the easy network configuration program. Maybe the program will see the card anyway if the module is installed. I do not know. But here is how you can add the card to the list choices. Log in as root and edit the file /usr/share/system-config-network/module-info. Find a spot like this one (it does not really matter, but this is where I put it):

```
lance
        eth
        "AT1500, HP J2405A, most NE2100/clone"
```

Add these lines above so that it looks like this:

```
ipw2100
        eth
        "Intel Wireless 2100"

lance
        eth
        "AT1500, HP J2405A, most NE2100/clone"
```

Save this file and close the editor.

I will assume you are finished, and the driver is installed and the module is loaded. Click on the System menu in GNOME and pick Administration→Networking. It asks you for a root password so you can do this. You should see a window like that shown in Figure 2.

I hope you see your wireless card in the devices list. If you do not see your wireless card, click on the New button. Now you can define a new wireless card. You can tell Fedora which card you are using. Pick Intel Wireless 2100 from the list. Do what is obvious until you get to the window you see in Figure 3.

Replace the silly stuff I have in my dialog with the stuff about your wireless card and your wireless network. You see where there is a place for a key? This is where you put in your WPA password. Finish the configuration and save it. Activate the connection from the main window (see Figure 2 and look for the Activate button) or you can reboot. I hope your wireless card works now.

Q **Dear Mango, KMail used to have an entry on a drop-down menu to Delete Message. It disappeared with SUSE 10.1 and could be found on a pop-up menu from a right-click on the message or the page carrying the message. I did an on-line update with the Online Updater, and Delete Message has gone from there leaving only the Move to trash option.**

Even more concerning, there is now no font control on Composer, or I can't find it. Configure KMail alters everything else but not Composer. I like to send my grandkids "HAPPY BIRTHDAY" e-mail messages in 48 size font, and now I can't.—*Stan*

A Hi Stan. I think maybe the people who work on KMail are trying to make it harder to make mistakes when they remove the delete option from the menu. You can make delete easy if you are not afraid of making a mistake. Put a delete button on the toolbar.

Here is how you do this. Right-click on the KMail toolbar and select Configure Toolbars... I use KMail as part of Kontact, so I must select the right toolbar. I select Main
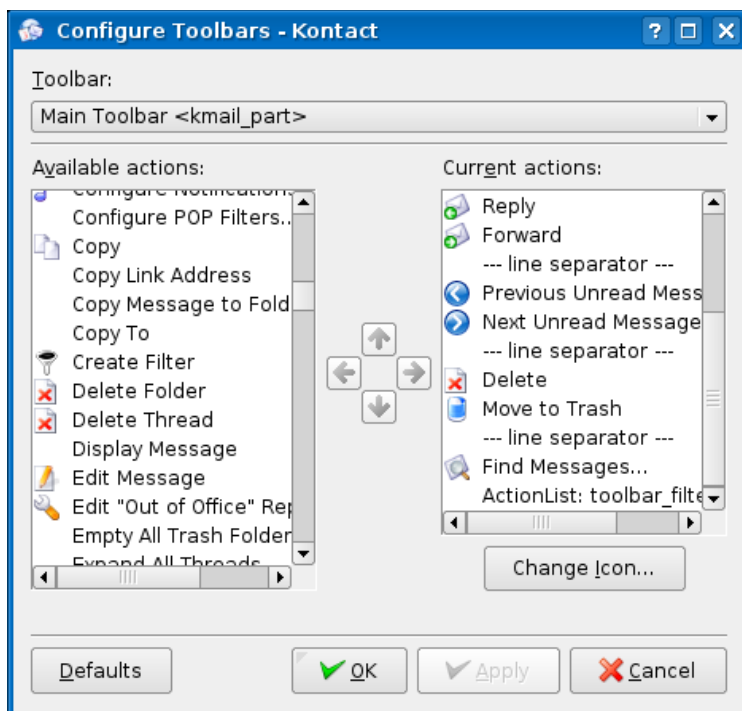
P2P

Figure 4. Add a delete button to your toolbar.

Toolbar <kmail_part>. See Figure 4 to see what I see. You see the Delete button in the list on the right? You will see this in the list on your left. I already moved it to the list on the right. That makes it appear on the toolbar. You can drag it up and down on this list to put it where you want it on the toolbar. I put it before the Move to Trash icon.

You still can make HTML messages with KMail. [Editor's note: by default, mail programs prefer to send mail in
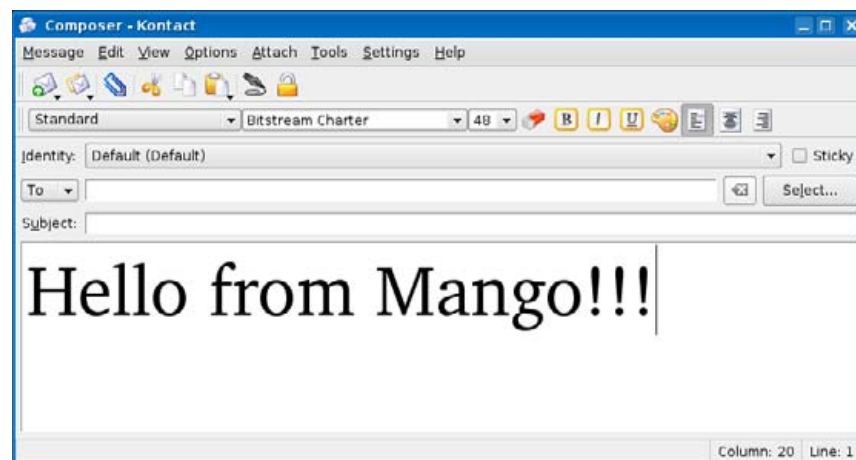

Figure 5. The Message Composer with an HTML Toolbar

straight ASCII text. To obtain formatting for a message, you must compose an HTML message, not an ASCII message.] The HTML composing toolbar does not show up by default in many versions of Kontact and KMail unless the distribution changes the configuration. I do not know why this toolbar does not show up in default settings. But you can make it come back easily. Compose a message. Right-click on the toolbar and select Toolbars→HTML Toolbar. This will make the HTML composing toolbar show up. Now you can set 48 size fonts like you said. See Figure 5. This is what composing looks like with the HTML toolbar.■

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

Amarok

With some of the most advanced features of any Linux audio player, Amarok is quickly becoming one of the most preferred available.

JES HALL

Amarok is a music player for UNIX written using the KDE libraries. Through the use of various audio back ends, Amarok supports the playback of a wide variety of formats. Although it's part of the KDE Project, Amarok has an independent release cycle, which makes for more frequent updates.

The Amarok developers have some fairly radical ideas about functionality and usability, making Amarok unlike any other Linux media player. Due to its unique feature set, it has generated a lot of media buzz and is becoming very popular among users of desktops other than KDE.

GETTING STARTED

The first time you run Amarok, you'll be greeted with the first run wizard. If you'd prefer not to use a wizard, you can click Skip, and then configure Amarok later using its configuration dialog. The first set of options in the wizard allows you to configure the Amarok player interface.

Amarok provides two separate interface configurations. One combines the player and playlist windows, rather like Rhythmbox or iTunes. The other configuration separates the interface into a small player window with a separate playlist that can be hidden, rather like XMMS or Winamp. If you change your mind about which configuration you prefer, you can toggle between them by showing the playlist if it is hidden and selecting Show/Hide Player Window from the Settings menu.

The next set of options in the wizard allows you to select folders to be scanned to add media to your library. The selection is recursive—ticking a folder causes all of its subfolders, and all of their subfolders and so on, to be scanned for media. You probably want this, but if you're really sure you don't, you can untick the box scan folders recursively below the folder list to disable this feature.

By default, Amarok also watches folders for media files being added or removed and updates the library accordingly. If the software you use to rip CDs creates a playlist file, Amarok can import these automatically as well. Scanning and building your music library can take a few minutes if it's quite large. Once Amarok has finished, you are presented with the player window in the configuration you chose.

Users of other desktops in particular will appreciate the fact that Amarok can be configured to use multiple audio back ends. Although some KDE users may want to use aRts, being able to output
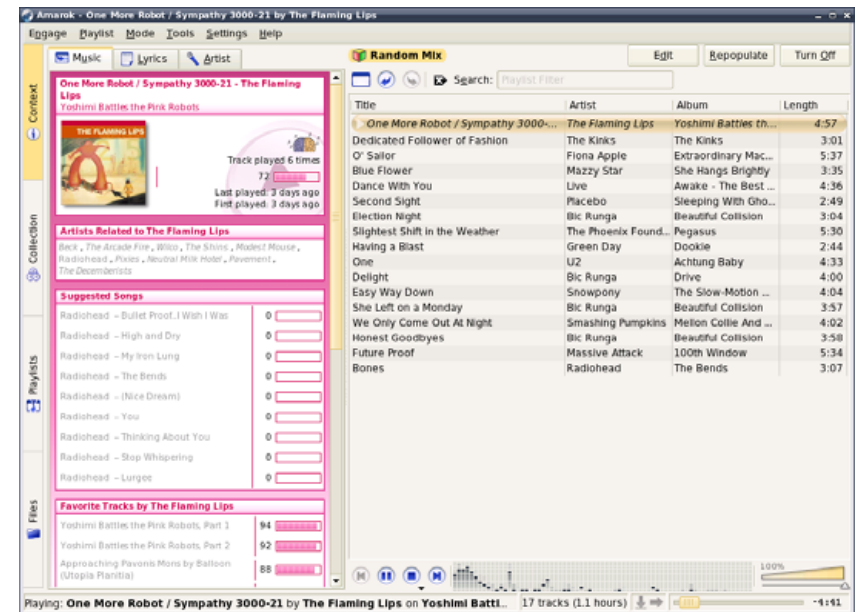

Figure 1. The Amarok Player and Playlist Interface

to Xine or GStreamer makes a lot more sense for users of other desktops. This can be configured in Settings→Configure Amarok→Engine.

THE INTERFACE

The playlist window is the focus of Amarok's feature set. On the left are the sidebar browsers, and on the right is the playlist (Figure 1). Populating

Figure 2. Last.fm Metadata Display about the Current Track

the playlist is as simple as dragging and dropping tracks or folders of tracks from a file manager window, or from your collection in the sidebar.

The context browser displays a wide array of information about the currently playing track. The Music tab displays metadata about the current track, and if you have Last.fm support enabled, suggested tracks from similar artists. The Lyrics tab automatically downloads lyrics for the currently playing track. The Artist tab fetches information about the artist from Wikipedia. Both the lyrics download and Wikipedia lookup works for radio streams as well as files played locally.

MANAGING YOUR COLLECTION

After you've run the first run wizard, any time you want to prompt Amarok to scan your collection and add new media files, you can select Rescan Collection from the tools menu. You also can add or remove directories to be scanned by going to Settings→
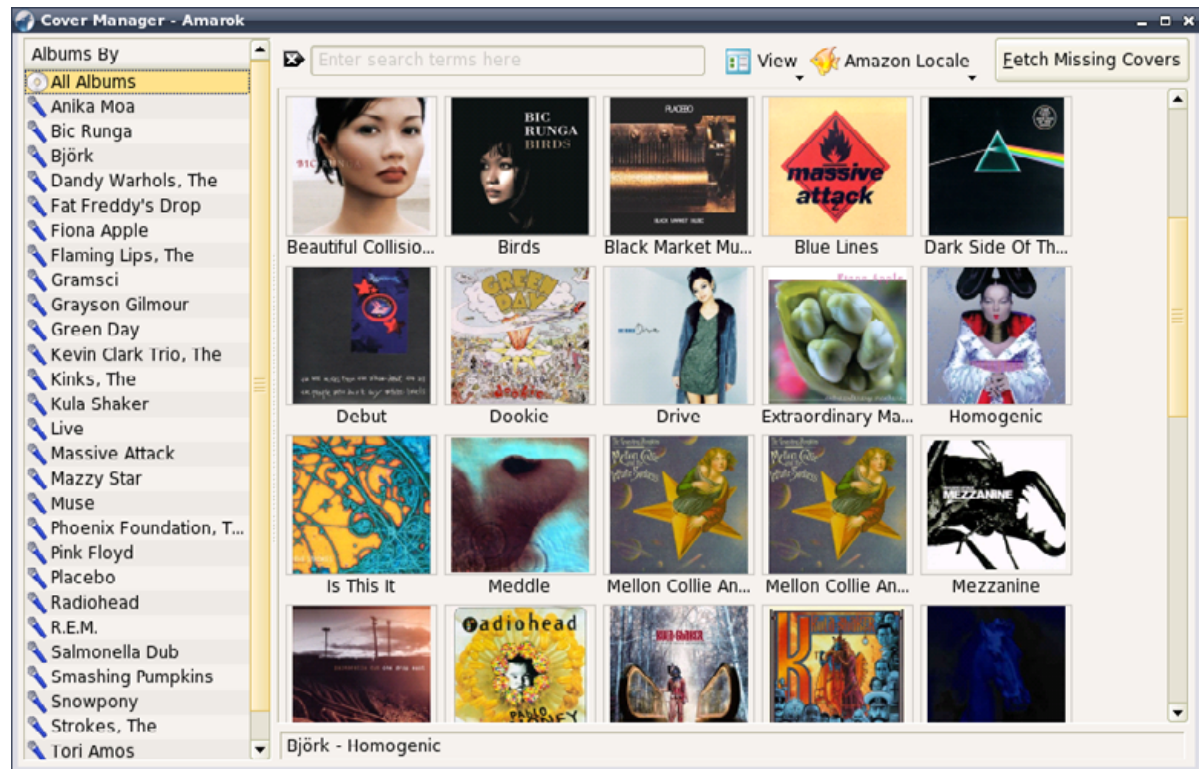

Figure 3. Using the Amarok Cover Manager

Configure Amarok, in the Collection section.

The Cover Manager (Tools→Cover Manager) is a great way to populate your album collection with cover art quickly. Set your Amazon locale to allow for differences between albums released in different countries, and then click Fetch Missing Covers. Be forewarned; it doesn't always get them right. Obscure recordings, and especially those not released in the US, may not have a cover image available on Amazon or may be assigned an incorrect image. If you have your own image file you'd like to use as

cover art, right-click on the album in the cover manager, and select Set Custom Image. Navigate to where you've stored the image file, and click Open to load it as the cover image for that album.

Amarok provides a fairly feature-rich tag editor for editing the metadata in audio files. To edit tags for one or more files, right-click on selected tracks in the playlist window or the collection browser, and select Edit information for <n> tracks. You can edit an entire album or artist at once by doing the above on the album or artist name in the collection

browser. When multiple tracks are selected, only the information they hold in common can be edited. If you select a group of tracks from the same album, you would, for example, be able to edit the Artist, Album, Genre, Year and Comment fields for all of those tracks at once.

MusicBrainz (http://musicbrainz.org) is a large community-driven database of music data. Amarok uses MusicBrainz integration to fill in metadata for music files automatically. When editing tags for a single track, as well as being able to edit the other fields manually, you can click Fill-in Tags Using MusicBrainz to have the metadata filled in automatically. Amarok will display a list of the matching tracks. Select the most appropriate one to fill in the tags. If at any point you want to discard your changes, click Cancel to leave the file unchanged.

LAST.FM

Last.fm is a service that tracks what music you listen to and uses this information to match you with people who have similar musical tastes. It uses this information to suggest other artists you might enjoy and creates a personalized radio station with these suggestions. To create an account, visit http://last.fm.

Your music profile is populated automatically from information uploaded by a compatible media player. Amarok ships with Last.fm support, but it's disabled by default. To enable it, in the configuration dialog (Settings→Configure Amarok), navigate to the Last.fm section. To enable full Last.fm integration, enter your Last.fm user name and password, and tick Improve my profile by submitting the tracks I play. If you would rather not submit this information, you can opt to leave that box unchecked and merely allow Amarok to retrieve similar artists.

With Last.fm support enabled, Amarok will now display a listing of similar artists in the context browser, and it will suggest tracks in your collection that suit the current playlist. This is my favourite Amarok feature—with somewhere around 60GB of media files, often Amarok suggests artists I didn't even know I had. Clicking on a suggested track adds it to the end of the playlist.

Another feature of Last.fm that Amarok supports is customised radio streams. Last.fm creates an individualised neighbor radio stream based on the artists in your profile. To listen to a Last.fm stream within Amarok, select the stream you want to listen to from the Engage→Play Last.fm Stream menu. As well as your personalized neighbor radio, you can select a genre from Global Tag Radio. These sometimes seem to have slightly fuzzy matching—unless I am the only person who is startled to hear Mandy Moore's "Candy" in the Indie Rock stream.

LOOK AND FEEL

Amarok lets you do some tweaking of its appearance to customise your experience. Most of the relevant settings are in the Appearance section of the configuration dialog. Here you can change the fonts Amarok uses as well as the colour scheme. Amarok, in recent versions, ships with a custom icon theme—if you use KDE and would prefer Amarok to blend in a little more, you can turn off the custom icons here to set Amarok to use your KDE icon theme.

The context browser's look is controlled by customizable cascading style sheets (CSS). A couple of fairly plain ones ship with Amarok, and more can be downloaded from within the Appearance dialog. To see what styles are available, click Download Styles. The Get Hot New Stuff Browser will download and install the themes you select automatically. If the rather violent pink context browser in these screenshots isn't your cup of tea don't worry—it's not the default, and there are plenty of other styles from which to choose.

Another attractive visual tweak allows you to customise the on-screen display (OSD). Under OSD in the configuration dialog, enabling it causes a nifty little pop-up label to appear on screen with information about the currently playing track when the track starts playing. With control over the font, font sizes, color, placement and length of time displayed on screen, it can be as flamboyant or unobtrusive as you like.

PLAYLISTS

As well as allowing you to create and save playlists manually, Amarok has support for radio streams, podcasts, and dynamic and smart playlists.

Smart playlists let you quickly populate a playlist with tracks that match certain criteria. Most of the smart playlists choose the top 15 tracks in a category, be it the newest, most played, least played and various others. One loads the entire collection, another loads 50 tracks at random. The playlist names are pretty self explanatory—try them and see!

Dynamic playlists are a little different in that they update automatically. They're great for a party or a long day sitting behind a desk.

Amarok has many other features that haven't been covered here. It would take three articles of this length to cover them all in detail. For more information, visit http://amarok.kde.org, check out the Amarok handbook or visit #amarok on irc.freenode.net.■

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

kdetv

Linux and kdetv turn your Linux desktop into a fully capable television, as long as you have the prerequisite hardware.

COLIN MCGREGOR

kdetv is intended to be a lightweight program to allow you to watch TV programs on your Linux-based PC. The first question that comes to mind is why would you want to watch TV on your computer? There are multiple answers, such as if you are short on space or living in a university dorm room, where you don't have space for both a TV and a computer. kdetv can be a solution if you occasionally need to watch TV at work, such as happened at one of my former employers, where the accountants were required to watch TV coverage of budget legislation being introduced into Parliament, so they would be able to answer client questions the next day.

I should also clarify what kdetv is and is not. This program simply lets your computer act like a TV. If you want a full-blown TiVo clone, where you can not only watch TV but also record TV shows on your hard drive, you want a harder-to-set-up/install program like MythTV (see the MythTV sidebar).

You will need a TV tuner card that is supported under Linux. For the kdetv program, a good choice would be many of the cards based around the Conexant, formerly Brooktree, bt8xx or Phillips SAA71xx series of chips. There are a number of things going for these cards, at less than $40 US, they are inexpensive, largely well supported under Linux and available from a number of manufactures. On the down side, these cards do demand a fair bit of CPU resources, and you *must* pay attention to the list of supported cards, as a few firms offer bt8xx/SAA71xx cards that are not supported under Linux. Also, many of these cards handle audio simply by having an audio-out jack on the back of the card, so you need to plug a little jumper cable between the TV card and the computer's audio-in connector. For the bottom line, double-check a Web site such as http://linuxtv.org and, in particular, in their video for Linux (V4L) area for a list of TV tuner cards known to work with Linux before buying.

Also, before you buy a TV tuner card, you need to know the TV standard for where the computer will be used. This is especially important if you are buying a TV tuner to be used in a country other than the one where you currently are located. The standard for the United States, Canada, Japan and several other nations it is NTSC, National Television System Committee. In most of Europe, other than France, the standard is PAL, Phase Alternating Line. In France, the system is SECAM, Sequential Couleur Avec Memoire. Regardless, you will be asked what sort of standard you are using during the setup.

Other hardware issues to consider include your choice of video card; having a 3-D accelerated video card, such as the ones based on ATI or NVIDIA chips, is an asset with a program like this.

On the other hand, for this program, going beyond the low end, inexpensive 3-D cards doesn't offer any advantages. As with TV tuner cards, some of the 3-D cards are much better supported under Linux than others, and you should pay attention to the reviews.

Install and connect the TV tuner card as per the instructions included with the card. Now you can start your computer and get ready to start kdetv.

You can find information on where to get and how to install kdetv on the kdetv Web site, http://www.kdetv.org. Unfortunately, not all the information listed on the site is always accurate. At the time of this writing, the information on where and how to install kdetv under Debian GNU/Linux is incorrect. See the Installing kdetv from Source sidebar for instructions for distributions like Debian. For other distributions, you can find packages on the following Web sites:

- SUSE: http://packman.links2linux.org

- Slackware: http://www.linuxpackages.net

- Mandriva: http://www.rpmfind.net

Then, simply follow the instructions that come with your distribution for installing a package.
When kdetv first starts, it automatically runs

the Channel Wizard, which asks a series of questions needed to configure the program your location. Should you get something wrong, move or change from, say, antenna to cable TV, you can reconfigure the system manually by running the Channel Wizard again. Simply click Channels→ Channel Wizard.

If your TV tuner card, driver software and available TV stations support the VBI (vertical blanking interval), some of the setup steps are made easier as the computer will be able to get some setup information right from the TV signal automatically. So, if you have VBI as an option, the Channel Wizard will ask if you want to use it.

The next screen asks from where the TV tuner card should get a signal. For most people, the answer will be the television connector, but you also have the option of using a composite video jack or s-video jack if you want to watch a signal from your VCR. However, you will need special cabling between your computer and VCR to make this happen. You also will be asked what sort of TV signal you're dealing with—for the US and Canada the answer is NTSC.

When you get to the frequency table to scan question, the tricky part is deciding between us-cable-hrc vs. us-cable. HRC, harmonically related carriers, is a method some cable companies use to

improve the picture quality. If you get this question wrong, you may still get TV pictures, but they likely will look bad and be in black and white. If you do make the wrong choice,
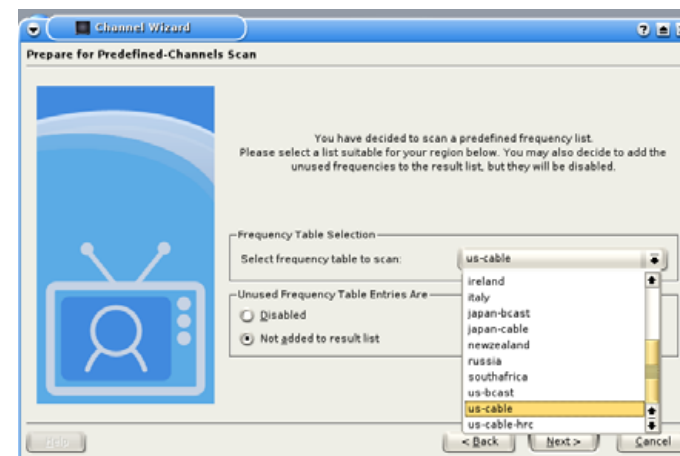

Figure 1. The start of the Channel Wizard—in this setup, VBI with the red dot is not an option, but everything else is fine.
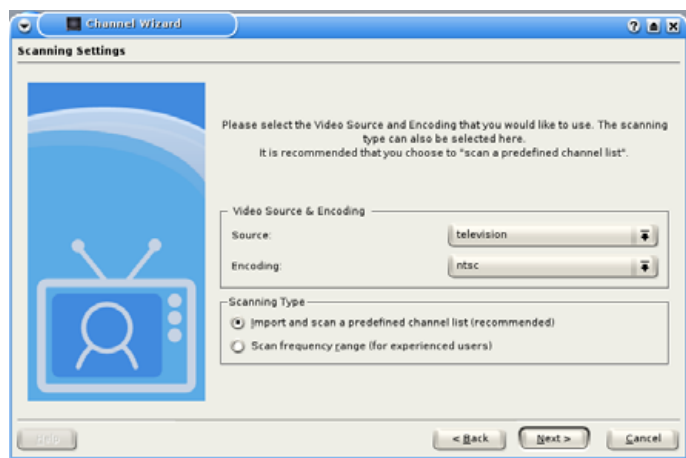
Figure 2. Selecting the Video Source and Type of Video Signal

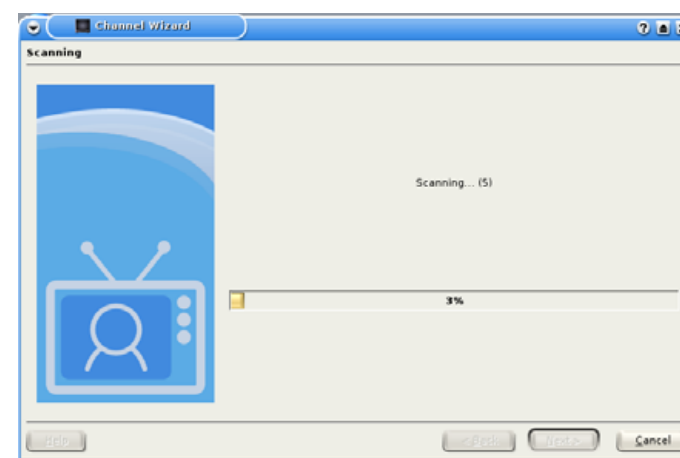Figure 3. Selecting the Frequency Table to Scan

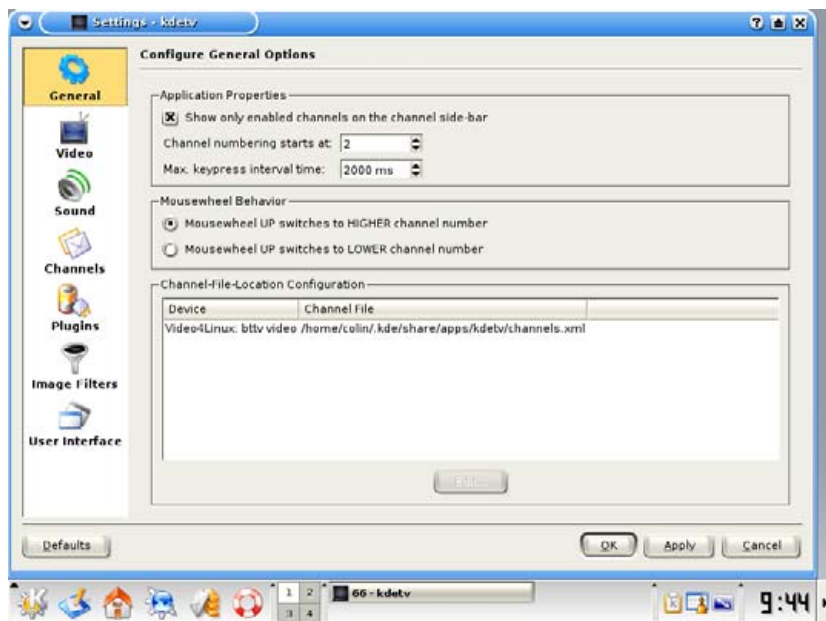Figure 4. The Computer Checking for Available Channels

Figure 5. The Configure kdetv main screen—most of the default set-tings in this area can be left alone.

simply go back and rerun the Channel Wizard.

For the next step, your computer will go look-ing to see which channels are available. If a local channel is off the air for some reason, such as late night maintenance, you may need to re-run the Channel Wizard.

At this point, the basics are set and you can get started.

kdetv can show a TV picture in three ways: Normal gives you a modest-size TV picture with a list of available channels down the left side and other options above the TV picture. TV Mode provides a small TV image without the other options displayed. In Full Screen, all you see on screen is the TV picture. In TV Mode

and Full Screen you can get a list of available options by clicking your right mouse button. Each mode has advantages, such as with TV Mode, you can have a TV image up on your screen and still be able to work on an OpenOffice.org docu-ment. On the other hand, when using kdetv as a TV replacement, Full Screen is a better choice.

Two other settings you may want to tweak are screen capture and channel name. Assuming you didn't have VBI to fill in the details, you can make the Normal screen display a bit more information than only a channel number. If you want to replace 61 with, say, "PBS - WNED" or some other more inform-ative note, simply double right-click on the channel you want to change, type in what you want to show on screen, and then press Enter.

Sometimes you may want to capture an image of what is on screen, say a Web site URL, a recipe or a mailing address. kdetv lets you capture screen images and then return to them at your leisure. But, first kdetv needs to know where you want the images to be stored. Click Settings→ Configure kdetv→Video. At this point, you will have a screen with several options, including where to store screenshots plus what quality the screenshots should be. I suggest setting up a separate directory only for screenshots.

INSTALLING KDETV FROM SOURCE

If you have a distribution that is directly sup-ported with accurate information on the http://www.kdetv.org Web site, go that route; otherwise, follow the steps below. For people using Debian or other distributions not support-ed directly by kdetv, you need to compile the program from source. To do that, download the source code from the kdetv site (version 0.8.8 at the time of this writing). Next, make sure you have the required support files/programs on your system, which, from a basic Debian Sarge release, means that from the root screen you will need to type:

```
apt-get install libqt3-dev
apt-get install kde-devel
apt-get install x-windows-system-dev
```

Next, as a regular user type:

```
bunzip2 kdetv-0.8.8.tar.bz2
tar -xvf kdetv-0.8.8.tar
cd kdetv-0.8.8
./configure
make
su
make install
exit
```

With this, the install should be done. Along the way, you will be asked for the root password, which is fine—supply it when asked. Now you can start configuring the program.

MYTHTV

If you want all the TV viewing tricks, without the limitations, that a TiVo offers, such as being able to pause live TV, record to hard disk, have on-screen channel listings and so on, MythTV is a free, open-source alternative. MythTV is more demanding in terms of hardware, and the software is more of a challenge to set up than kdetv. Although the inexpensive TV turner cards that work with kdetv will work with MythTV, the gold standard for MythTV is the Hauppauge PVR series of cards. Hard disk space can quickly become a real issue with MythTV; for example, regular analog TV can, in a worst-case scenario, consume about 2GB of storage per hour of TV stored. If you want to avoid some of the MythTV problems, such as setting up a MySQL database, have a look at Knoppmyth, a version of Knoppix Linux customized for setting up MythTV (http://www.mysettopbox.tv/knoppmyth.html). If you want to look further into MythTV, go to the official MythTV Web site (http://www.mythtv.org) or see James Turner's article "A Linux DVR Is No Myth—It's MythTV!" in the December 2005 issue of *Linux Journal*.

Figure 6. A screenshot image—Jan Wong, a journalist with Toronto's *Globe and Mail* newspaper on the receiving end of an interview.

As for quality, keep in mind that a full-size NTSC screenshot in PNG format and default quality will consume about 500k per image, which may be an issue if you are limited on hard disk space. Once screenshots are configured, pressing the letter S saves the image of what is on the screen (expect the screen to jitter slightly after asking for a screenshot).

kdetv can be made to work with an infrared remote control, thanks to the Linux Infrared Remote Control program, but that is a somewhat challenging program. For more details, see http://www.lirc.org.

kdetv is a great little program. For simply watching TV on your computer, it offers a fair number of bells and whistles, works with inexpensive hardware and is, at least compared to MythTV, straightforward to install. If you do want more options, other more-difficult-to-setup programs are available.■

Colin McGregor works for a Toronto-area charity, does consulting on the side and has served as President of the Toronto Free-Net. He also is secretary for and occasional guest speaker at the Greater Toronto Area Linux User Group meetings.

Scribus In-Depth Tutorial

A follow-up look at Scribus with in-depth coverage of portable document creation and fonts.

DONALD EMMACK

In the May 2006 issue of *TUX*, I covered the basics of newsletter creation with Scribus. In this follow-up article, I dig deeper into Scribus and choose a couple topics to explore further. The last article attracted good publicity for this powerful desktop publishing program (DTP). So, based on that input, I decided to focus on the most frequent requests: fonts and PDF creation. Many personal and business users rely on .pdf files for document exchange. So, with this follow-up article, I take a detailed look at Scribus' portable document format (PDF) generation and ways to add fancy fonts to your publications. Choosing features to cover was a tough job, because Scribus has so many features. Fortunately, *TUX* readers sent in responses to suggest more topics for Scribus.

Scribus is an example of an application that should be widely accepted regardless of licensing. It is available not only for Linux, but Windows and Mac OS X as well, so availability should not be an obstacle. For open source to flourish, applications like Scribus must get the attention of existing Microsoft Windows users. In short, they must see open-source applications as an equivalent—or better—solution for personal computing. The availability of high-quality applications should drive users to Linux, as it did when Microsoft Windows first appeared.

THE FIRST FOR LINUX

Let's step back and review. Scribus fills a unique need in the Linux community. Specifically, Scribus is one of the few applications providing press-ready output for commercial-quality printing. So, both home and business users count on Scribus DTP resources. Plus, it's open source, and the user community is active and helpful. So, shame on you if you haven't already installed it! If you're going to go for it now, please check out my article in the May 2006 issue of *TUX* for installation instructions and the repository locations.

SPICE UP YOUR DOCUMENTS WITH FONTS

Whether you are designing a form-filled .pdf or a .pdf presentation, selecting the right fonts will make your output shine. Beware—not all fonts are alike, and some look bad in print material and great on screen. Choosing the wrong font type for a .pdf form will make it nearly unreadable.
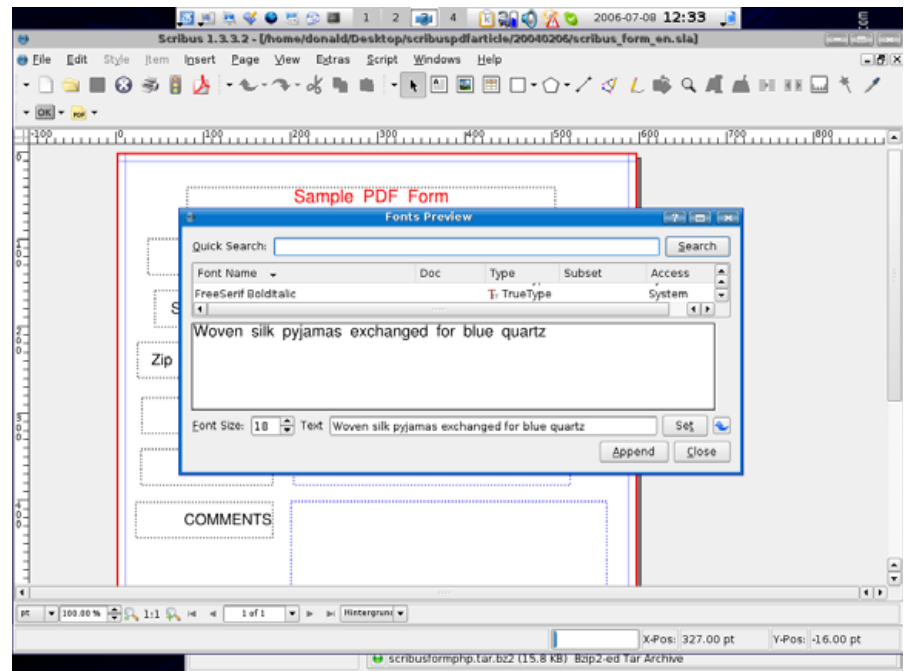

Figure 1. The Scribus font preview capability is available from the Extras menu option.
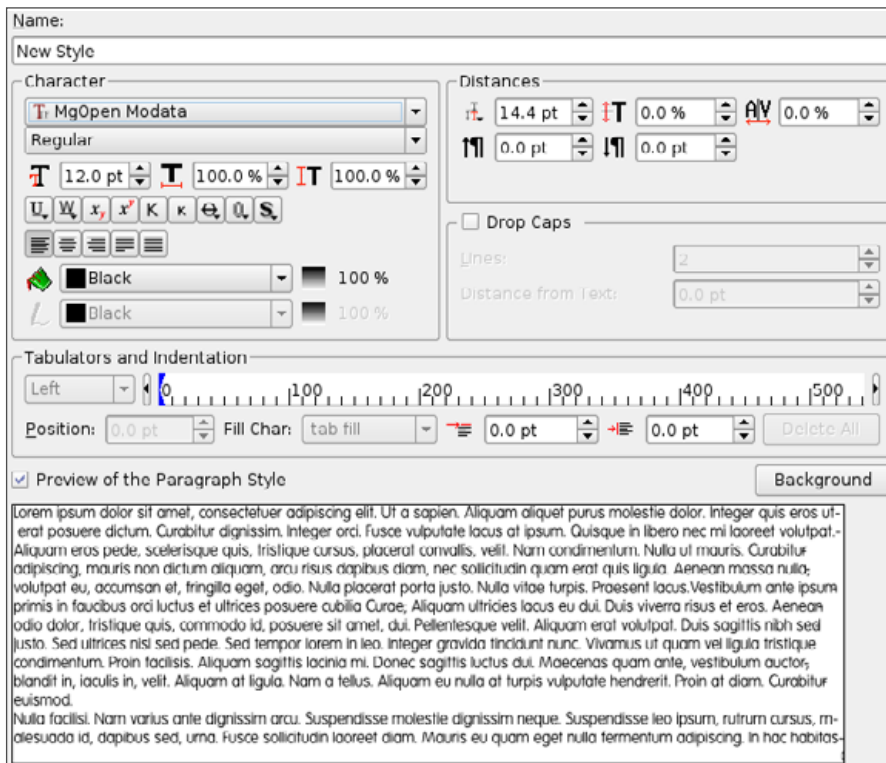
Figure 2. Use Paragraph Styles to create a unique look for your document.

Figure 3. Use the Story Editor to apply styles to text frames.

Most Linux distributions include a healthy set of font packages as well as instructions for adding more fonts. The Scribus Wiki (http://wiki.scribus.net/index.php/Installing_additional_fonts) and the Scribus site (http://www.scribus.net/index.php?name=Web_Links&req=viewlink&cid=3) provide links to many font sites and detailed instructions for installation.

Manfred Klein at typOasis (http://moorstation.org/typoasis/designers/klein/index01.htm) is my favorite place to look for fonts. You can sort through font styles grouped by decorative, historical and text and picture categories. As with other areas of Linux software, some fonts are designed only for non-commercial use. So, make sure to select ones suitable for your environment.

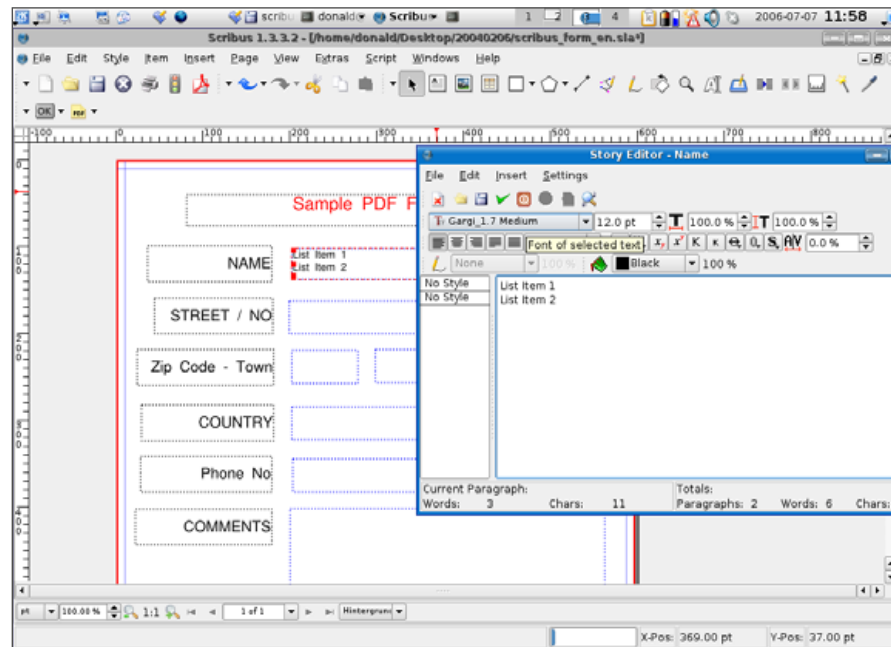Take your time and look through the font sites to get good samples for your intended projects. After downloading, type `mkdir .fonts` in your home directory. The . in front of fonts tells Linux this is a hidden directory. Thus, you might need to adjust your file browser to display hidden folders. For Konqueror users, turn on View→Show Hidden Files before proceeding. Now, you should be able to see the .fonts directory. Afterwards, place the newly downloaded font files into this directory. Restart Scribus, and these new fonts will be available for use. To see the new fonts, go to Extras→Font Preview. Figure 1 shows the Fonts Preview window displaying the Cardo Regular font.

USING STYLE FONTS TO PRESERVE CONSISTENCY

Good-looking publications (like *TUX*) have unique styles. Scribus' style editor is the tool to manage your tailored publishing look. Go to Edit→Paragraph Styles, and select New. A screen similar to the one shown in Figure 2 will appear on the screen. Next, I suggest you name

the style by function. For example, create a heading font and call it page-heading or something similar.

When you have added the styles necessary for your work, it's simple to keep documents looking uniform. While working with a Text Frame, press Ctrl-Y to open the Story Editor as shown in Figure 3. Next, select your style design from the paragraph drop-down box and update the Text Frame.

PDFS

Nearly all computer users are familiar with PDF documents. Portable documents can lessen form printing costs and dramatically improve readability for incoming documents. PDFs are platform-independent, and you can use them on the Web as well. In fancy language, this means a PDF is re-purposed to fit paper, Internet or presentations with little effort.

Scribus 1.3.3.2 continues to lead the Linux community with PDF creation. Because Scribus works with PDF versions 1.2-6 and PDF-X and PDF-A, which one should you use for export? Each version has different improvements, but the higher version number might not be what you need.

The documentation Web site for Scribus provides an extended discussion on the differences between each PDF version and how it corresponds with Adobe Acrobat (http://docs.scribus.net). Most self-print and screen documents do not include transparency or need exact coloring. So, version 1.3 is a good choice for general compatibility.

The Scribus team even publishes a Scribus Pre-Press document (http://docs.scribus.net/index.php?lang=en&page=prepress). You can give this to your local print shop to explain how well Scribus' output works. It clearly explains how Scribus meets commercial standards for publishing professionals.

WHAT ABOUT PDF READERS?

Nearly all high-profile Linux distributions include some form of PDF document reader. Some work fast and do a good job at displaying PDFs. However, I recommend you download Adobe Acrobat and install the Firefox plugins.

You will find Adobe Acrobat at http://www.adobe.com. It's a polished reader and the industry standard for PDFs. Others, such as Kpdf, will not work for forms entry.

SAMPLE PDF PROJECT

The Scribus documentation Web site includes a tutorial on creating your first .pdf file (http://docs.scribus.net/index.php?lang=en&page=examples/cgiform/pdf_form). Following the steps in this dialog will lead you through creating a simple PDF document for the Web. Although, nearly the same steps also apply for a print-based document. This guide explains how to open and set up the file and placement of boxes and check boxes for data input. Plus, there is a small section and some sample JavaScript code for sending the form over the Internet when it's complete.

Overall, it's a good tutorial and covers most areas of importance. However, there are a couple of explanations in the tutorial I want to describe in more detail. First, after adding a text box to your document, you need to adjust its properties. This means you need to tell Scribus what type of data users can enter in the text box. Scribus also lets you
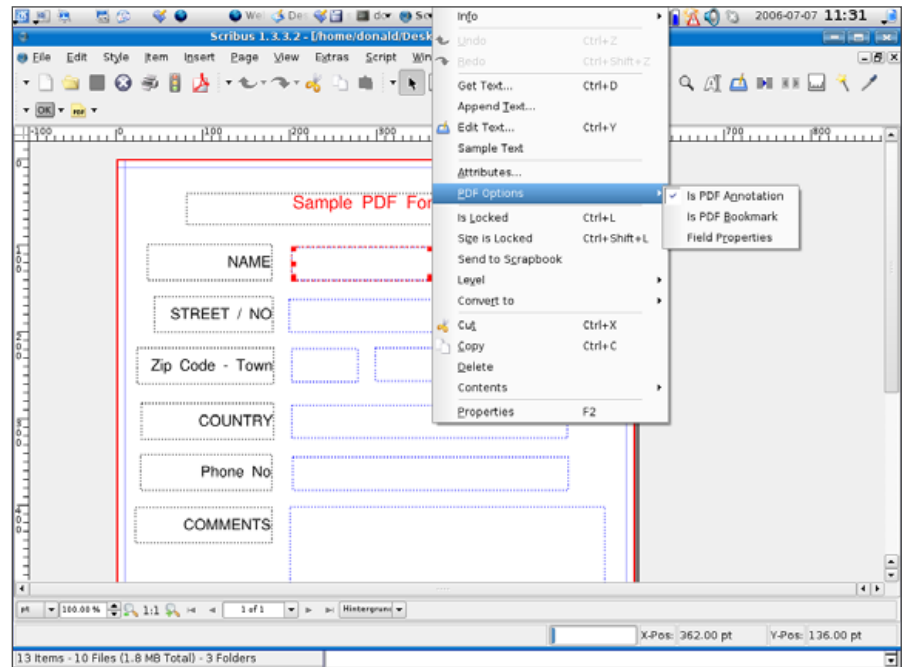

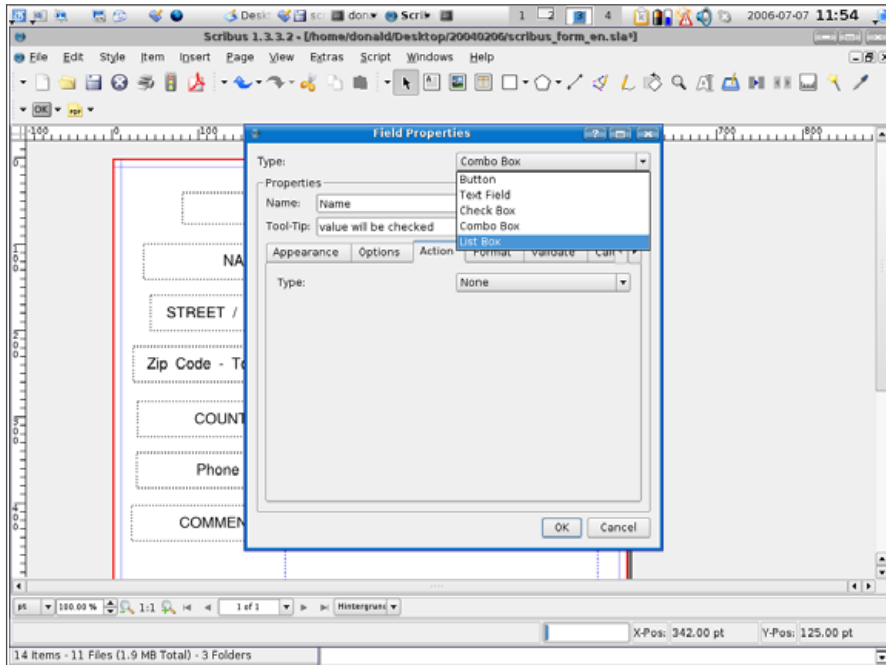Figure 4. Accessing the Field Properties to Specify Input Format

Figure 5. Using the File Properties Dialog to Specify the Input Format

Figure 6. Export Options Available from Scribus, Including PDF

specify the format of the input.

The tutorial says to right-click and select Field Properties. Actually, you need to select PDF Options→Field Properties to get to the right place. Only a small difference, but I've seen people become confused and frustrated looking for Field Properties (Figure 4).

Once you are at the Field Properties, you define whether it's a text box, check box or list box, as shown in Figure 5. If you select List Box, you must build the selection values into the .pdf file. With Text Box selected, press Ctrl-Y, or right-click and use Edit Text to open the Story Editor. Scribus saves each paragraph as a selection line for the final PDF.

Once finished with the sample file, you're ready to export the final version. To prepare the file for wide use, the Scribus documentation recommends saving the file as version 1.3 PDF. Go to File→Export→Save As PDF, as
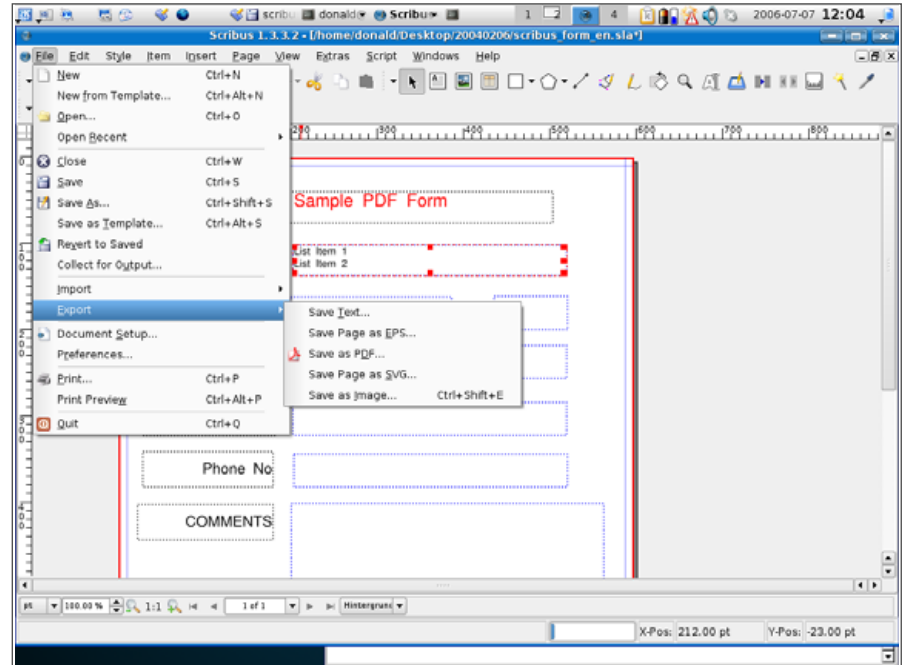
shown in Figures 6 and 7. The tabs at the top of the window show several different document features. Review each to make sure your settings are correct.

Because we are using a font some computers may not have, it's good practice to embed the font in the export process. Figure 8 shows that I've made sure to include the Cardo font under the Fonts tab. When you're done, you should have a handsome PDF file with fields properly formatted for what you need.

FINAL CHECKS

Scribus has a Pre-Flight Verifier to examine your documents and look for problems before they reach the production line. With PDF files, I also recommend you put it to one more test. This is especially important for
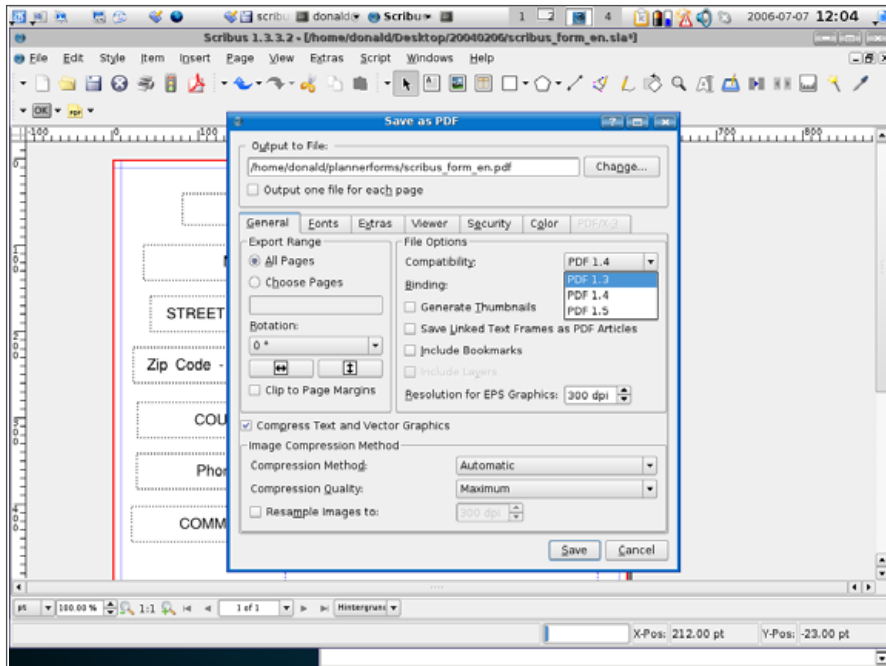
Figure 7. Save as PDF options dialog—remember to review all options carefully.

Figure 8. To improve document portability use the Embedding fonts dialog.

large production runs at a third-party print shop.

Scribus documentation and its Wiki suggest several on-line PDF-checking tools. I use PDF City at http://www.pdfcity.com/index.htm. By using its pre-flight inspection system, you will gain clues to potential printing problems before the printer does. PDF City provides this as a free service and gives any error details in a user-friendly format.

CONCLUSION

Like any other software, it may take editing and publishing a few docu-ments before you get familiar with the software design. Of course, it is nice to know that wiki support and in-program help features do an
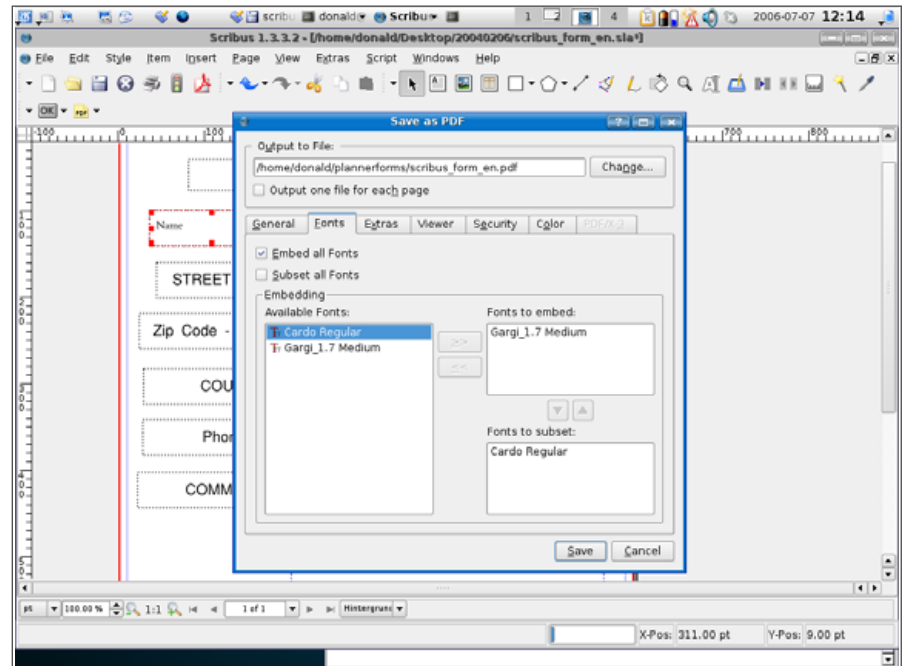
excellent job of explaining solutions to any problems or questions.

I'm impressed by this program. Being open source, it has room to grow with continued input and direction from users. The feature set is robust, and I feel confident recommending it to most small- to medium-size businesses with average to advanced publishing needs.■

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A Beginner's Guide to Kino

Kino is a powerful nonlinear digital video editor for Linux with great support for importing video from MiniDV cameras.

DONALD EMMACK

Video editing and capture is a cool ingredient of any desktop. Microsoft and Apple users have many tools available to import digital video (DV) and massage it into nice looking clips. For Linux, Kino is a DV power tool that keeps pace with the fast-changing world of multimedia editing.

Learning how to handle your camcorder and obtain video is usually a straightforward task. It may not be the best video production, but you can at least capture events in video media. Like many other folks, I have a stack of Super8 and Hi8 video cassettes lining my bookshelf. Videography skills are not my family's best talent. Consequently, no one really wants to sit down and watch hours of disorganized film clips taken by a poorly skilled videographer like me.

This is where Kino can rescue you from video-skill embarrassment. Kino lets you import various video film clips, edit them to correct mistakes and add special effects. Digital video capture through FireWire is Kino's unique feature.

INSTALLING KINO

I use Kubuntu Dapper Drake for personal and business needs. However, the repositories don't include Kino, so instead of tinkering with Adept, I downloaded it from the Kino Web site. [Editor's note: other distributions may include Kino on their distribution media, so install using the distribution package manager.] If you have the same problem, download Kino from http://kinodv.org/article/static/1. Afterwards, unpack the file and follow the installation instructions contained in the file labeled INSTALL.

Most digital video cameras use FireWire to send video output. So, you must use dvgrab to capture the IEEE 1394 interface and send it to Kino. As with Kino, dvgrab may not be in your distribution's repository. If not, download the file from http://kinodv.org/article/static/1, and follow the installation instructions contained in the compressed file.

Finally, make sure your kernel includes IEEE 1394 capability (http://www.linux1394.org). In short, this feature allows your computer to control an IEEE 1394-compliant camcorder through Kino. It's possible that your Linux distribution does not include this automatically. So, use your package manger to install the following files:

- libiec61883 (http://www.linux1394.org)

- libraw1394 (http://www.linux1394.org)

- libavc1394 (http://sourceforge.net/projects/libavc1394)

- libdv (http://libdv.sourceforge.net)

- libsamplerate (http://www.mega-nerd.com/SRC)

If not found with the package manager, download them from here http://kinodv.org/article/static/1, and install them by following the installation instructions included in the compressed file.

Now, you have a full Kino installation, with the ability to connect to and control many DV camcorders. Check the compatibility list at http://www.linux1394.org/hcl.php to make sure your hardware is compliant before going further.

UNDERSTANDING FILE TYPES

Diving into digital video will expose you to several video file types. Using the word "several" understates how confusing this can be for the novice video user. To simplify, remember that the most common compressed files include MPEG-4, .avi and .asf. You have probably seen many of these on the Internet. Conversely, raw video or .dv files have no compression and take up a lot more storage space.

There are a number of codecs in use. Some .avi files will not open in Kino because you don't have the right codec. For example, you may not be able to use an .avi file even though Kino supports this format. Several Internet blogs mention similar problems. In my tests, I occasionally have difficulty opening certain .avi files in Kino; however, they still play with my movie player.

FIRST VIDEO EDITING

This brief introduction will get you familiar with Kino and digital editing. Before you try to use it, take a look at the documentation on the Kino Web site (http://kinodv.org/article/archive/9). Obtaining a grasp of the terminology related to frames and time values will help you get underway with less confusion.

Prepare your kernel by using modprobe to load the IEEE 1394 features as in Figure 1. Then, run Kino as the root user. This is important because some of Kino's features require root privileges to work. Once Kino is running, check to make sure IEEE 1394 is working properly. Go to Edit→Preferences or press Ctrl-P, and then select the IEEE 1394 tab. A properly running installation will have no error messages and the screen will look like the one shown in Figure 2.

Now the real fun begins. You have two choices: open an existing video file or capture new raw video from your camcorder. If you decide to work with existing files, remember Kino supports only raw DV and digital video .avi files. For this article, I focus on capturing new real-time video from the camcorder.

For demonstration purposes, I used a MiniDV Canon ZR500. I connected the Canon camcorder to my laptop computer with a FireWire cable. After connection, select the Capture tab on the right side of your screen, and Kino displays the incoming digital video from the camcorder (Figure 3).


```
donald@donald-laptop:~$ sudo modprobe raw1394
Password:
donald@donald-laptop:~$ sudo modprobe video1394
donald@donald-laptop:~$ sudo kino
```

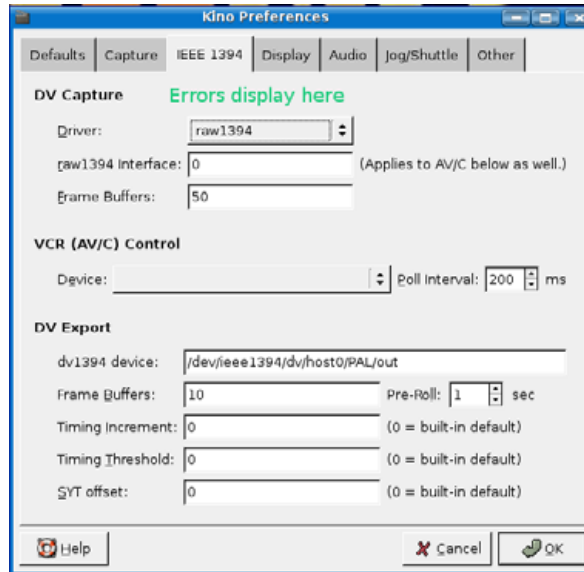Figure 1. Preparing the Linux kernel to load IEEE 1394 features.

Figure 2. The Kino IEEE 1394 Preferences screen—note where error messages would be displayed.
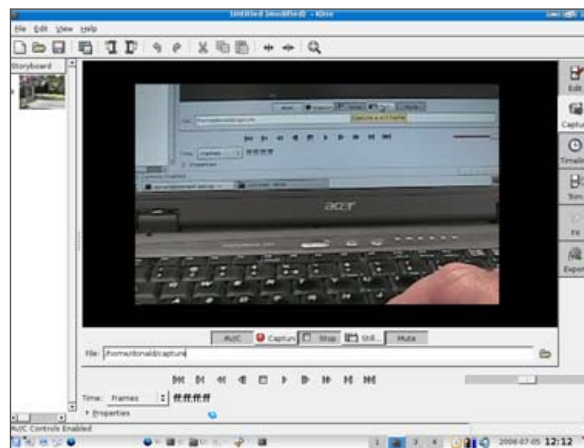

Figure 3. Real-Time Video Capture from a MiniDV Video Camcorder with Kino

In real-time video capture there is a slight delay, but it is hardly noticeable.

In this example, I chose to make a video clip while typing on my laptop keyboard. Use your mouse to select the Capture button on the bottom of the display screen, and raw video will start streaming into your laptop hard drive. Once you have the clip you want, press the on-screen Stop button, and save your video clip.

It's important to realize raw digital video files are very large and need large storage areas. My keyboard typing video is only seven seconds long, yet the .dv file is more than 25MB. So, clear some hard drive space before you offload a significant amount of video footage from the camcorder.

EFFECTS AND TEXT

Kino does a good job of capturing the raw video as well as cutting out parts of the clip you don't want to keep. The Trim feature in Kino allows you to cut out parts of the video clip you don't want. With the video clip still loaded, select Trim from the right side of the screen. Now, at the bottom of the screen, you will see more editing tools below the clip's blue time line (Figure 4). The blue
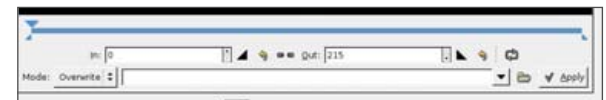

Figure 4. Kino Video Editing Tools and the Video Time Line (Before Trimming)

Figure 5. Active Video after Trimming the Video with the Trim Tool

time line represents the entire length of the clip. To trim a section, use your mouse to drag the left and right ends of the blue time line into the time frame you want. In Figure 5, I have chopped out
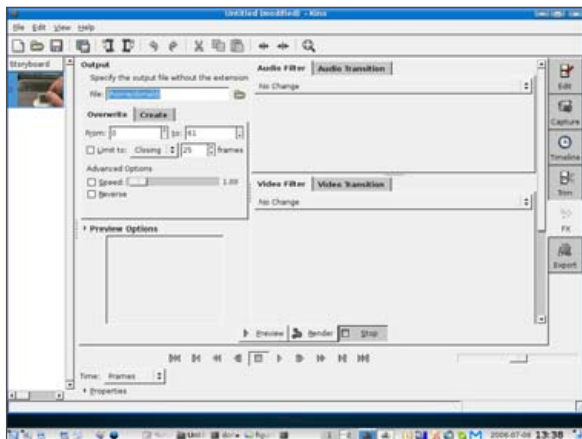

Figure 6. Kino's Special Effects (FX) Tab for Modifying Videos with Audio and Video Effects
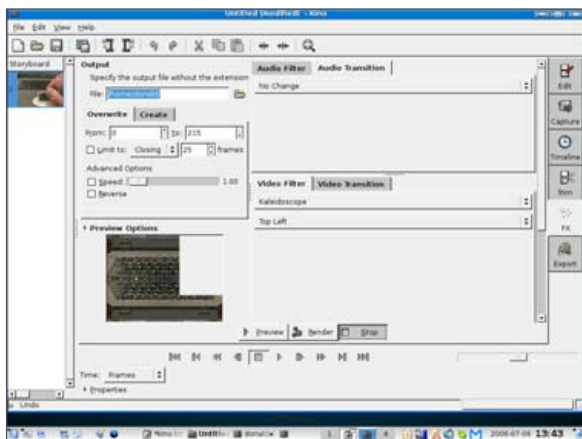

Figure 7. An Example of the Kaleidoscope Video Effect

the beginning and end of my video clip and kept frames 70 through 175.

Kino also provides a way to add extra effects to your video clips. To explore the choices, click the FX tab on the right of the screen. As shown in Figure 6, you have the option of adjusting both audio and video. Because you obviously can't hear my audio example, I use my favorite video effect to show you a cool Kino trick. Use the drop-down box below Video Filter to select Kaleidoscope. Then, press the Preview button. As shown in Figure 7, you've now warped the video clip.

After you're finished editing and adding effects, rename this new clip in the Output section of the FX window. Then, press the Rendering button to incorporate your new clip into a new .dv file.

Although Kino is a DV editor, there are several features it does not support. To add titles and other effects, you may need to use Cinelerra (http://heroinewarrior.com/cinelerra.php3) to achieve your goal. See http://www.robfisher.net/video for a technical tutorial on Kino and Cinelerra.

CHEAP HARDWARE CONSIDERATIONS

If you look into low-cost digital video devices, you'll find many tapeless camcorders. Frequently, you can buy these for less than $100 US. These tapeless camcorders look fun to use, because they often have means to capture pictures, MP3 playback and other trendy features. However, camcorders like these often store the video in a compressed format like MPEG, .mov or .asf. Once stored in this manner, you'll have to convert the file to .avi, so Kino can read it properly. Plus, such devices usually do not have a FireWire port.

Solutions to this are complex. My attempts to import .avi files not created with Kino work only part of the time. Konverter is a data conversion package for converting various file types. Although the most recent release of Konverter looks promising, it always seems to crash on my machine. Perhaps we will explore this in a future *TUX* tutorial once the application matures.

As a result, I suggest you stay with mainstream digital video devices. MiniDV is one of the most popular camcorder formats today for producing raw video output. MiniDV camcorders store digital information on a small cassette tape. From a MiniDV tape, you send the digital video out to a television, personal computer or other storage device. Other types of digital video camcorders store on DVD and hard drives. As long as they export raw video and are IEEE 1394-compliant they should work well with Kino.

YOUR TURN TO EDIT

Video editing is just plain fun. Kino makes it possible for Linux users to take on some home editing projects, and the application seems poised to mature with creative new features. Look through the user correspondence, and you will find a lively group of people looking to add text editing and more advanced effects into the next release candidate. Perhaps you might even work on the Kino team to make these exciting features become a reality.■

Donald Emmack is Managing Partner of The IntelliGents & Co. He works extensively as a writer and business consultant in North America. You can reach him at donald@theintelligents.com or by cruising the 2 meter amateur RF bands in the Midwest.

KPlayer

When trying to choose a default media player from the wide selection available, KPlayer deserves a close look.

DMITRI POPOV

Because KPlayer is one of the most widely used KDE applications, it comes with almost every KDE-based Linux distribution. If it's not already on your system, use a package manager to install it. If KPlayer is not included with your distro or you just want to give KPlayer a try, you can install it via klik (assuming your distribution supports it). Simply launch Konqueror and enter `klik://kplayer`, and klik will take care of the rest. Later, you can move the kplayer.cmg file to your home directory and launch it at any time using the following command: `$HOME/.zAppRun $HOME/kplayer.cmg` (where $HOME is the path to your home directory).

Figure 1. KPlayer can handle DVDs and a wide range of media files.

PLAYING LOCAL FILES

If you have media files stored on your hard disk, you can use KPlayer to play them in several different ways. The first and the most obvious way is to launch KPlayer and choose File→Open. Alternatively, you can drag media files into KPlayer's main window to play them. You also can associate media file types with KPLayer using the File Associations section in the Konqueror configuration dialog. This allows you to play media files simply by clicking on them. Finally, you can launch KPLayer from the terminal using the `kplayer filename` command, where filename is the path to the file you want to play.

PLAYING REMOTE FILES

One of the great things about KPlayer is that it supports KDE's I/O slaves, tiny modules that allow you to access files using different protocols. In practice, this means you can play media files that are stored on a remote machine as if they were stored on your local disk. For example, I store all converted movies on my Linux server downstairs, and I can play them on my laptop anywhere in the house. To play a movie stored on a remote Linux machine, you can use the fish protocol. The fish protocol is a special protocol for KDE that requires a running SSH server and Perl installed on the remote machine. All you have to do is to enter the path to the file in the Open URL dialog

box in KPlayer. The path should look something like this: fish:/serveraddress/home/username/movie.mpeg. Keep in mind though, if you plan to play high-quality movies stored on a remote machine, you have to have a pretty fast network connection.
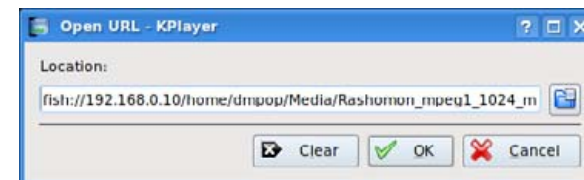

Figure 2. Using KIOslaves, you can play remote files in KPlayer.

PLAYING DVDS

Loading a DVD film in KPlayer is easy but not as obvious as it should be. To start a DVD movie, you have to choose File→OpenURL, and enter the `dvd://1` link, where 1 refers to the track containing the movie. The problem is that most DVDs contain multiple titles, and it's not always obvious which one contains the movie. You have two options here: you either can try different combinations and preview the result in KPlayer, or you can cheat the system by using a tool like DVDShrink (http://dvdshrink.sourceforge.net). Launch DVDShrink and press the Set from DVD button next to the Enter the DVD title to rip field. This opens the "Titles on this DVD" window containing

the list of the available titles. Note the title with the longest playtime (in Figure 3, it's Title 2). Tip: if KPlayer refuses to play DVDs, check whether the libdvdcss2 library is installed on your system. This library handles encrypted DVDs, but not all Linux distributions have it installed by default.
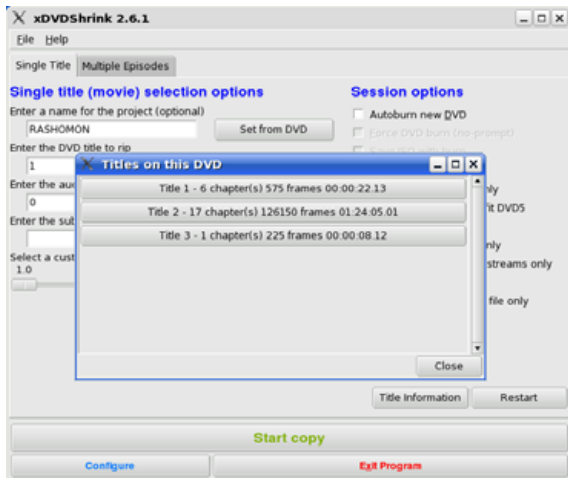

Figure 3. Use DVDShrink to find the movie track on the DVD.

KPLAYER'S NIFTY FEATURES

Even if you've never used KPlayer before, you quickly can figure out most of its features, and some of these features can really come in handy. My favorite KPlayer feature is the ability to use the mouse to control different settings. For example, if you place the cursor over the Progress slider, you can go back and forward using the scroll wheel. You also can use this trick to control the volume, contrast and other settings.

If you have a machine that is a bit long in the tooth, you have two options that can help you improve the playback quality. From the Player

menu, you can enable either the Soft Frame Dropping or Hard Frame Dropping features. Both options drop some frames in order to maintain smooth playback. As you might have guessed, the soft option is more gentle than the hard one (which can, in some cases, break the decoding process). So you should try the soft frame drop-ping first, and if that doesn't work, try hard frame dropping. You can configure the Frame drop set-ting either globally (choose Settings→Configure KPlayer→Advanced) or for each file in the playlist.
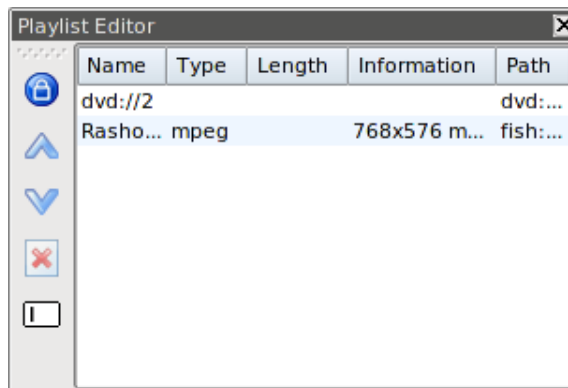

Figure 4. The Playlist Editor shows all the files played in KPlayer.

Another KPlayer feature worth mentioning is its ability to specify separate settings for each file in the playlist. When you open a file in KPlayer, it's automatically added to the playlist (choose Playlist→Show Playlist to show the playlist). To edit the properties of a file in the playlist, you need to enable the Playlist Editor first by choosing Playlist→Show Editor. Left-click on the file you want and select Properties from the context menu. In the File Properties window, you can tweak the file's set-tings. For example, in the General section, you can
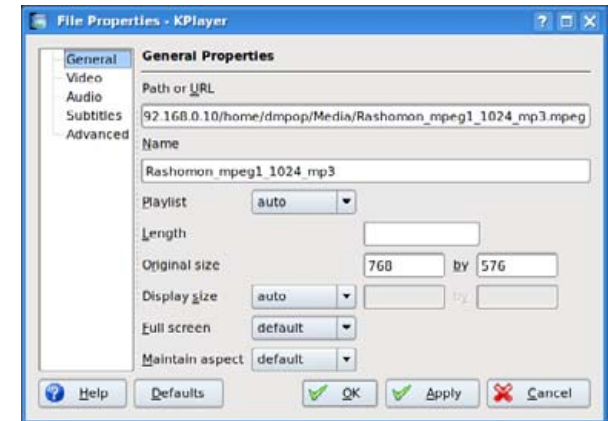

Figure 5. You can specify separate settings for each file in the playlist.

set the file so it always opens in full-screen mode and change the filename (it could be, for example, movie title and director). The Video section lets you change the brightness, contrast, codec, frame rate and other playback settings. In other words, you can tailor each file's settings to your liking.

FINAL WORD

KPlayer is a rather straightforward application, and this article should help you master not only its basic functions, but also its more advanced fea-tures. If you like KPlayer, and you want to get the most out of it, make sure to check out its official manual at http://kplayer.sourceforge.net/manual.■

Dmitri Popov is a freelance writer whose articles have appeared in Russian, British and Danish computer magazines. His articles cover open-source software, Linux, Web applications and other computer-related topics.

Picasa Breaks the Google Linux Embargo, but Just Barely

Google and CodeWeavers team up to deliver Google's first Linux application by using Wine.

DANIEL MCCARTHY

Picasa is an image management and manipulation software package written by Google. Until very recently, Picasa was available only for Windows. Google, working with CodeWeavers, contributors to the Wine Project, has ported the application to Linux.

When Picasa was released, there was some skepticism about the use of Wine rather than a native rewrite of the product for Linux. A major reason for this skepticism is due to the oft-dubbed dependency hell that can come about by relying on other projects. To solve this, Google has packaged Picasa in such a way that it is completely self-contained and will not interfere or overwrite any other versions of Wine you may already have installed. Because it is self-contained, there is no dependency hell to work through.

I have installed Picasa on a desktop system with 1GB of memory—an Athlon XP 2500+ processor running Ubuntu 6.06. To begin the installation process, point your browser to http://www.google.com/picasa/linux, and click the Download Picasa For Linux link. From the resulting page, choose the Free Download (.deb)—for Debian/Ubuntu x86 option. In Firefox, this presents you with the opportunity either to Open with Gdebi or to save the file to disk.

At this time, I would like to take a moment to reflect on the installation of Picasa. It is often said that Linux software management is difficult. I am certain that after you have gone through the installation of Picasa on Ubuntu, you will begin to see how far from the truth this really is.

Using the Open With (Gdebi) option from Firefox, click OK. This launches the package management software for Ubuntu, as shown in Figure 1. All you need do now is click the Install Package button. You will be prompted to grant administrative rights to the process about to begin and also will be required to enter your password.
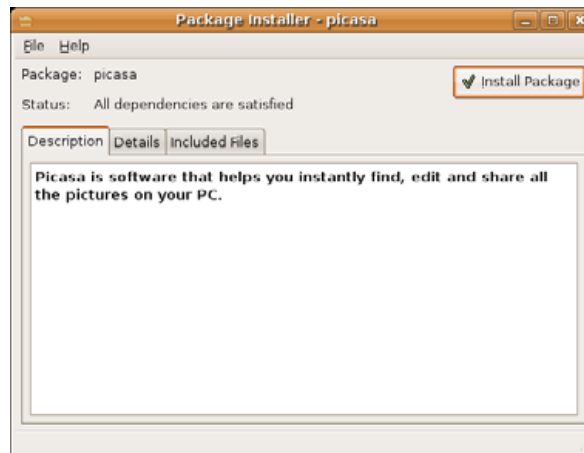

Figure 1. Installing Picasa

With the software installed, you now can launch Picasa by navigating to Applications→Graphics→Picasa. When Picasa is launched for the first time, you are prompted to scan either your entire hard drive or limit the scan to your Desktop. I recommend selecting the Desktop option. If you choose another option, you will see many graphics loaded into Picasa's album list that you probably will not want to see there, such as icons for programs. Figure 2 provides an illustration of the first launch.

An anomaly I discovered at this point in the
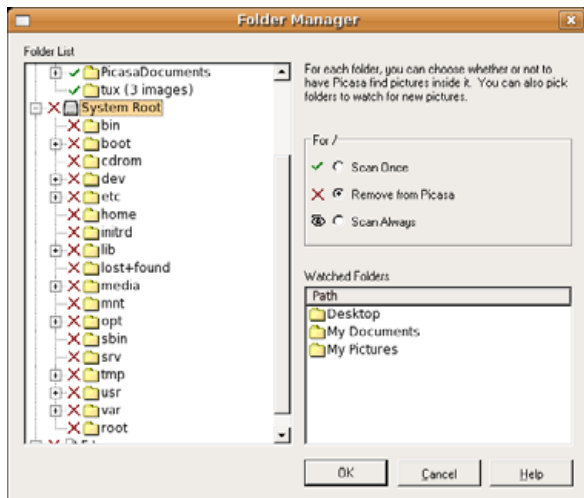

Figure 2. Starting Picasa

Figure 3. Folder Manager

Picasa experience was that even though I had selected the Only scan the Desktop option, Picasa scanned the entire hard drive. This left a bit of cleanup after the first launch. This nuisance led to the first feature I used in Picasa: removing folders from Picasa's watch list. To do this, right-click the folder in question, and select the Remove from Picasa option. The folder on which you have right-clicked will be selected in the Folder Manager window. Rather than removing each folder one by one, I selected the topmost directory, the System Root, and chose the Remove From Picasa option. As you can see in Figure 3, you can scan a folder once, remove the folder from Picasa or watch the folder for changes.

Picasa creates a folder in your home directory with the name Picasa Documents with subfolders My Music, My Videos and My Pictures. For every album you create within Picasa, you will see a subfolder in the PicasaDocuments/My Pictures

folder. By default, Picasa will create a subfolder Export within the PicasaDocuments/My Pictures folder when you select an image for export.

This brings me to another slightly annoying feature. Picasa uses Wine, which, in itself, is not a problem at all. It becomes an annoyance when you select an image for export. After exporting an image, Picasa launches a file browsing window to the location of the exported image. The annoyance comes in the shape of Picasa launching a Wine file manager program rather than launching Nautilus, the GNOME file manager. Again, this is simply an annoyance rather than a lack of feature or functionality.

DIGITAL CAMERA RECOGNITION
Picasa automatically detected my Olympus Camedia C-50 camera when it was plugged in. At the time of detection, select which images

Figure 4. Red Eye Removal

to import into your Picasa library. I had 122 images on my camera at the time of import, and it took approximately three and a half minutes to import the images—including the time it took for me to decide to exclude those hideous portraits of myself.

Once an image has been imported, a variety of effects, filters and fine-tuning options are available. I once wrote a how-to on my Web site (http://linuxphile.org) on the removal of red eye using GIMP. I have to say that using Picasa to remove red eye is 100% more efficient. It took me close to ten minutes to work with the layers and filters in The GIMP for a single person image compared to the 30 seconds it took to remove red eye on three people using Picasa. For an example of the red eye feature, take a look at Figure 4.

The Collage feature is very interesting, specifically the multiple exposure collage. Picasa

lets you select multiple pictures and turn them into a collage in minutes, using four collage types (Picture Pile, Picture Grid, Contact Sheet and Multiple Exposure).

The effects that Picasa offers are hugely useful. I am graphically challenged, so the click-and-point features offered by Picasa made me feel somewhat competent. In fact, some of the images I have taken did not turn out so well. For example, I was at a Black Rebel Motorcycle Club concert at a club in Washington DC. The club was very dark. There were flashing lights and other distractions for my camera. Taking a picture with the flash on resulted in a blurry mess. Taking a picture without the flash on resulted in a very dark image. With Picasa, I was able to import the darkened image taken without the camera's flash and make it somewhat presentable. To do this, I used the Tuning tab to add light to the image, and then added the Black & White effect.
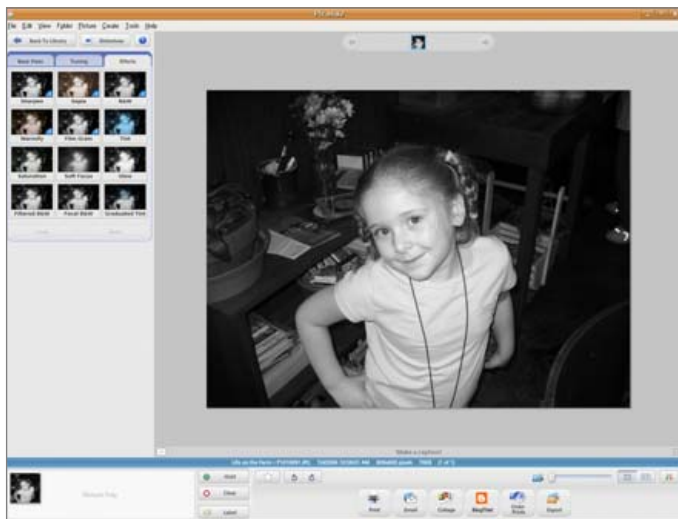

Figure 5. Edit Mode

Figure 5 provides an illustration of the numerous effects available in Picasa. When applying effects, users can undo each of the effects applied. Notice the album navigation controls at the top of the page. Rather than going back and forth between the image library and the manipulation tools, you can make use of the navigation features. Picasa prompts you when changing images while in the editing mode.

Google has also incorporated the ability to order prints directly from within Picasa from a variety of companies. I ordered a poster of a picture from one of my nieces from Zazzle. When I chose the Zazzle option, Picasa automatically uploaded the image for me, and I was able to go about making the printing selections immediately. Unfortunately, I have not yet received the poster, so I cannot give an informed response on the quality. Other companies listed such as Walgreens, LifePics and Ritz let you pick up your prints locally.

Picasa has a time-line feature that organizes your albums into a date-sequenced order. When viewing the time line, you can initiate a slideshow presentation of the images in any album by double-clicking the album. When the slideshow is running, you can change the time between slides. Take note of the Make a caption text in Figure 5. Any captions added to an image appear when viewing the time line. This is perfect for holiday or vacation photos.

I attempted to make use of the Create a Screen Saver feature. I found, after a little digging, the results of this attempt. A folder was created in PicasaDocuments/My Pictures/Picasa/Screensaver. This folder contained copies of the images and nothing more. The user interface was not very intuitive. I received no messages informing me of the location of the resulting screensaver, and no error messages.

I did have better luck with the Create a Movie feature. I created a movie by selecting multiple images within the library view and selecting Create→Movie from the top menu. A dialog gave me the choice of small (320x240), large (640x480) or widescreen (960x720). Similar to the time line, I also was able to choose the number of seconds between images. With ten images selected, the actual rendering of the movie took approximately one minute. The resulting movie was given the name of the album to which the images belonged, and it was placed in the PicasaDocuments/My Pictures folder. Picasa creates a title for the movie, giving the date and the album title. The rendered movie has zoom and motion effects. These effects give it a true video feeling rather than a stale slideshow.

As I've stated previously, I am extremely graphically challenged. This goes beyond the mere inability to color coordinate. Picasa has increased my self esteem in this regard due to its ease of use. Picasa is the perfect tool for image management on Linux. It goes beyond the Nautilus thumb viewer and auto-import features of GNOME. It also gives you a wide variety of easy-to-use filters, effects and management capabilities. I would hope that someday Google will write a native Linux version of Picasa, but until that day, I am quite content to use this current version.■

Daniel McCarthy works by day as a configuration manager for Computing Options Company developing software in both Java and PHP. By night, he works as the system administrator for http://techguy.org. He is an avid Linux enthusiast and promoter of open-source software.

Google Earth Linux

With the latest release of Google Earth, Google finally adds a Linux version.

DMITRI POPOV

Google Earth is one of those applications you must have—no matter whether you find it useful or simply want to kill time by cruising the globe. This is perhaps the main reason so many Linux users spent hours trying to make the Windows version of Google Earth run on Linux. Luckily, now you don't have to go through the trials and tribulations of tweaking Wine to make this great application work on your Linux machine; Google has released a native Linux version of this excellent application. According to Google, the software has been tested on Ubuntu 5.10, SUSE 10.1, Fedora Core 5, Debian 3.1 and other popular distributions, so it should work right "out of the box" for most Linux users. The download page (http://earth.google.com/download-earth.html) also contains information about minimum and recommended system requirements, which you should check carefully before you download and install Google Earth. Because Google Earth fetches all the data via the Internet, you also need a relatively fast network connection. For this article, Google Earth was tested on a low-end Acer TravelMate 243 laptop with a 2.5MHz Celeron processor and 512MB of RAM running Kanotix (http://www.kanotix.com) and using a 2Mb ADSL connection. Even on this modest setup, Google Earth performed pretty well.

Installing Google Earth on Linux is a breeze. Simply download the GoogleEarthLinux.bin file into your home directory, open the terminal window, and run the `sh GoogleEarthLinux.bin` command. Leave the options in the Google Earth Setup Window as they are, press the Begin Install button, and the installer takes care of the rest. That's it. There is only one thing that doesn't work in the beta 4 release. Although the installer claims it installs desktop menu entries for GNOME and KDE, they don't appear anywhere. This is a minor quibble though, because you can launch the application by simply running the `googleearth` command.

If you've used the earlier version of Google Earth for Windows, you will notice some major changes in the application's interface that are also present in the current Linux version. The GUI is now more functional, or contains less eye-candy—depending on how you look at it. The navigation panel has been replaced with on-screen controls that fade away when not used. This simplifies the way you navigate the maps and frees more space for the actual imagery. The most interesting improvement is that the 3-D buildings are now textured, meaning that they look more like real buildings and not just gray blocks. These 3-D textured models can be created using the SketchUp (http://sketchup.google.com) software, which probably explains why Google bought @Last Software to obtain SketchUp, not so long ago.

The Linux version of Google Earth looks almost identical to its Windows sibling, and there is only one thing missing when you launch the application on your Linux machine. Unlike the Windows version, Google Earth on Linux doesn't include a default list of interesting places like Eiffel Tower, Grand Canyon, Imperial
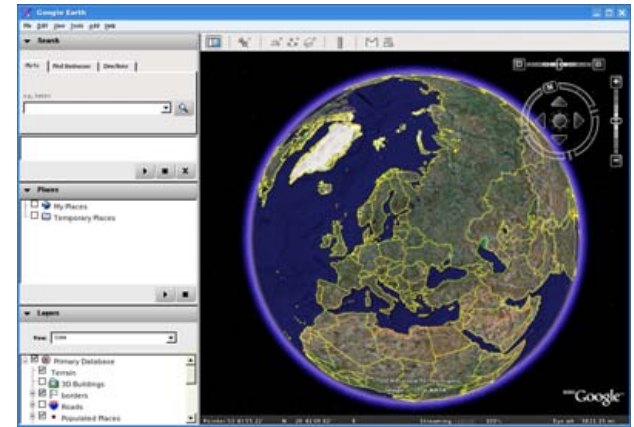

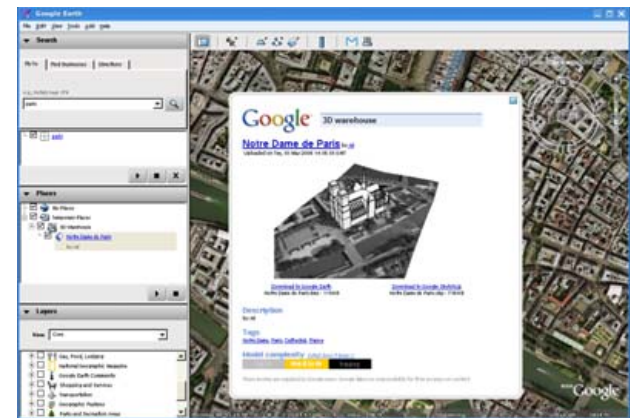**Figure 1. The new version of Google Earth features several interface tweaks.**

Figure 2. Click on a 3-D building marker to view the thumbnail of the model and the download links.

Palace in Tokyo and so on. Although not the end of the world, those suggestions are a nice starting point for people new to Google Earth. Hopefully,
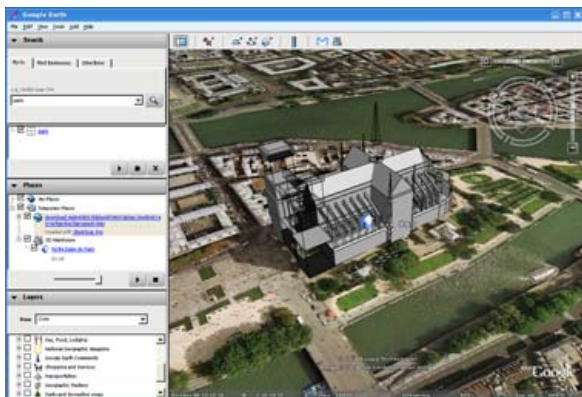
Figure 3. With a single click you can download and view the 3-D model. Here is the Notre Dame Cathedral in Paris.

the list will be added in the next version of the application.

If you've never tried Google Earth before, prepare yourself for a treat. Although it would be impossible to describe all Google Earth's features, here are a couple of examples to whet your appetite. As previously mentioned, Google Earth now supports 3-D models created in SketchUp, and you can use the 3D Warehouse Network Link to get the most out of this feature. Point your

---

PRICE: free

RECOMMENDED CONFIGURATION:
- **Kernel: 2.6 or later**
- **RAM: 512MB**
- **Hard disk: 2GB**
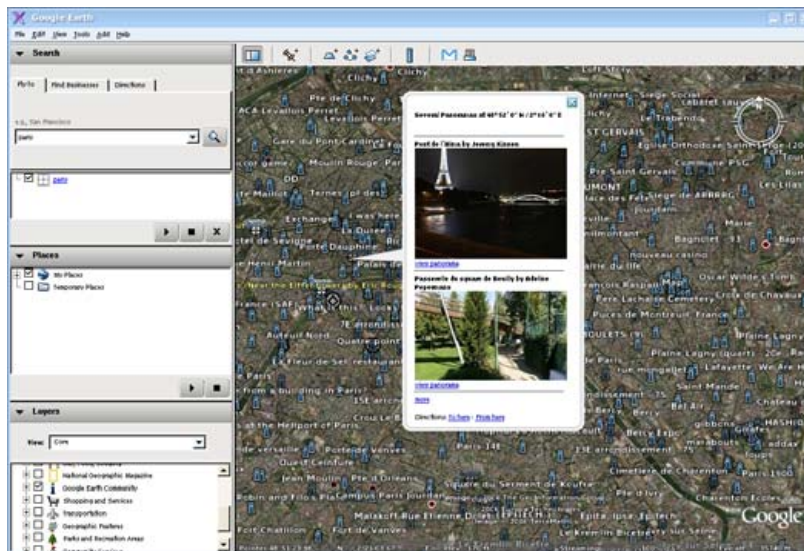- **Graphics: 3-D-capable with 32MB of VRAM**
- **Screen: 1280x1024, 32-bit color**

Figure 4. The Google Earth Community layer provides a wealth of additional information.

browser to http://earth.google.com/3d.html and download the 3D Warehouse Network Link file. Launch Google Earth, choose File→Open and select the downloaded file. This enables the 3D Warehouse feature, and when you visit a place in Google Earth, you see blue houses that mark the available 3-D models. Click on the blue house to open a pop-up window containing a thumbnail of the 3-D model, its description and the model complexity indicator.

Two download links allow you to import the model into Google Earth and Google SketchUp. If you choose the former, Google Earth downloads the model and zooms into it so you can see it in all its glory.

All data in Google Earth is organized in layers that can be "turned" on and off. For example, turn

on the Shopping and Services layer to locate shops, banks, bookstores and so forth on the map. Most of these layers pull data from the "official" sources, but Google users also can add their own data via the Google Earth Community layer. Turn on this layer, and you see all sorts of information, including other users' placemarks and Webcams. You also can share your placemarks with the Google Earth community. Simply left-click one of your placemarks on the map and select Share/Post. This opens the posting wizard, which guides you through the submission process. You also can export your placemarks as KMZ files and share them only with selected Google Earth users. You can even e-mail the placemarks directly from within Google Earth.

All in all, it's great to see one of the most interesting applications now available on Linux. Google deserves praise not only for creating a native Linux version, but also for going the extra length and making it easy to install and use. If you have a machine capable of running Google Earth, you ought to give it a try. But be warned; it's extremely addictive.■

Dmitri Popov is a freelance writer whose articles have appeared in Russian, British and Danish computer magazines. His articles cover open-source software, Linux, Web applications and other computer-related topics.

Review of Slackware 10.2

With a slow and steady development pace, Slackware wins the race for simplicity, stability and reliability.

DANIEL BARTHOLOMEW

My first experience with Linux came while attending school and working as an assistant to a professor in the business department of the university. One day he came into the office, plunked down a 486 desktop computer and said, "I want a Web server. Put Linux on this. Talk to Bob down the hall, he's got some floppies." The floppies from Bob—about 20 in all—contained Slackware Linux.

Slackware Linux could be considered the great uncle of the Linux distribution world. First released by Patrick Volkerding while he was a student at Minnesota State University Moorhead in April 1993, Slackware is one of the oldest if not *the* oldest continuously developed Linux distribution on the planet. It makes relative newcomers, like Ubuntu, seem like babies. Slackware also tries to be one of the most "UNIX-like" Linux distributions (more on this later).

If you have to have all of the latest and greatest packages, Slackware is not for you. Simplicity, stability and reliability are more important to the Slackware developers than having the most up-do-date bleeding-edge versions of everything. As evidence of this, the latest version of Slackware still runs on the 2.4 Linux kernel instead of the more-popular (and current) 2.6 kernel that most other distributions use.

Simplicity is evident in that the programs and packages that come with Slackware are not extensively customized like you see with other distributions. KDE, for example, does not ship with a customized window theme or even

something as benign as a customized desktop wallpaper. As far as I could see, every package is shipped as close to "stock" as it can be.

Installing Slackware is not for the faint of heart. The Slackware installation CD is, technically, a live CD—but it boots you straight into a command-line environment instead of to a graphical desktop. This can be scary if you are used to seeing an installer or desktop environment launch

right away when booting a live or installation CD. Instead of an installer walking you through every step of preparing your disks and choosing packages, you are given a command prompt and are expected to know what to do from there.

Once launched, the installer itself is not as pretty as you will find with more consumer-oriented Linux distributions like Fedora, SUSE and Ubuntu. It is a very functional and capable installer, but that's it—no

```
ISOLINUX 2.13 2004-12-14  Copyright (C) 1994-2004 H. Peter Anvin

Welcome to Slackware version 10.2 (Linux kernel 2.4.31)!

If you need to pass extra parameters to the kernel, enter them at the prompt
below after the name of the kernel to boot (scsi.s etc).  NOTE: In most cases
the kernel will detect your hardware, and parameters are not needed.

Here are some examples (and more can be found in the BOOTING file):
    hdx=cyls,heads,sects,wpcom,irq (needed in rare cases where probing fails)
or hdx=cdrom (force detection of an IDE/ATAPI CD-ROM drive)
where hdx can be any of hda through hdt.

In a pinch, you can boot your system from here with a command like:

For example, if the Linux system were on /dev/hda1.

boot: bare.i root=/dev/hda1 noinitrd ro

This prompt is just for entering extra parameters.  If you don't need to enter
any parameters, hit ENTER to boot the default kernel "bare.i" or press [F2]
for a listing of more kernel choices.

boot: _
```

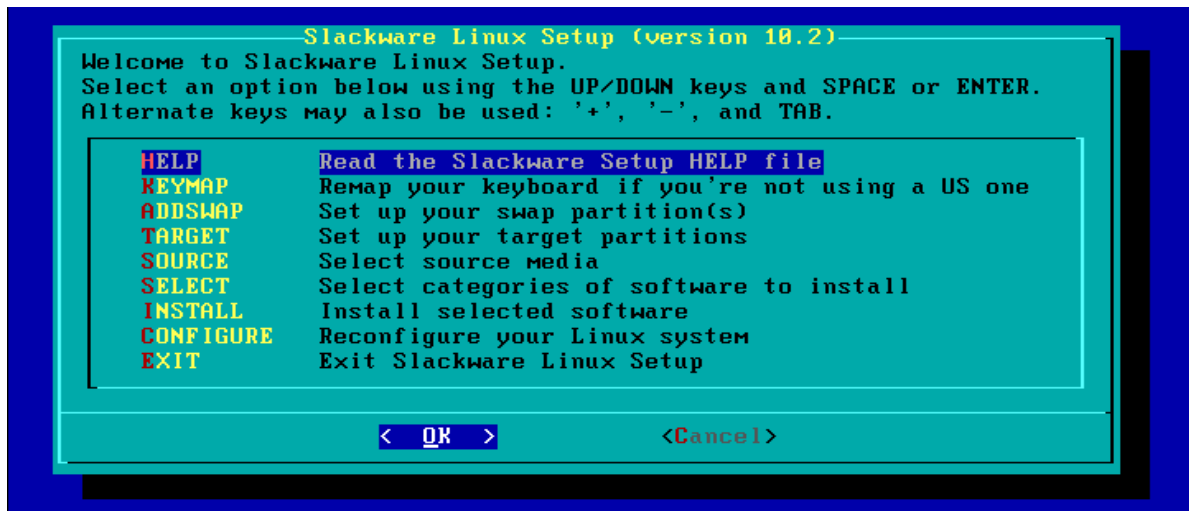Figure 1. Yes, it really is a live CD—just not the type you may be used to.

Figure 2. The Slackware installer—pretty, isn't it?

Figure 3. Go with the full install. You'll be glad you did.

bells and no whistles, no fun facts or marketing text—it is an installer, and that is its only job. If you have installed Linux only using graphical installers, your first stop should be to the Slackware Installation Help page at http://www.slackware.com/install. This will walk you through the steps you need to install Slackware.

When installing Slackware, you have the option to choose a custom install or to do a full "install everything" install. I definitely would choose to install everything; that way, you don't need to worry about a missing package of some sort or other down the road.

The Slackware distribution comes on four CDs. The first CD contains the base distribution and several lightweight window managers. The second CD contains KDE and a few optional packages. The third and fourth CDs have the source code of the distribution and—unless you are a developer or are just curious—you safely can ignore both of them.

The first boot after installing Slackware can be a little disconcerting if you are not ready for it. Instead of using GDM or KDM and booting into a graphical login screen, like most mainstream distributions do these days, Slackware boots you to a text-only login prompt. After logging in, you still will not see KDE or any of the other alternative desktops, you will be on the command line. As long as you specified which graphical desktop you wanted as part of the install, issuing the startx command from the prompt will get you into graphical mode.

The selection of packages follows the Slackware philosophy of simplicity and stability above all else. The selection of programs in KDE—apart from popular applications like Firefox, Thunderbird and Gaim—are all simply the programs that come with KDE. One notable absence is the OpenOffice.org office
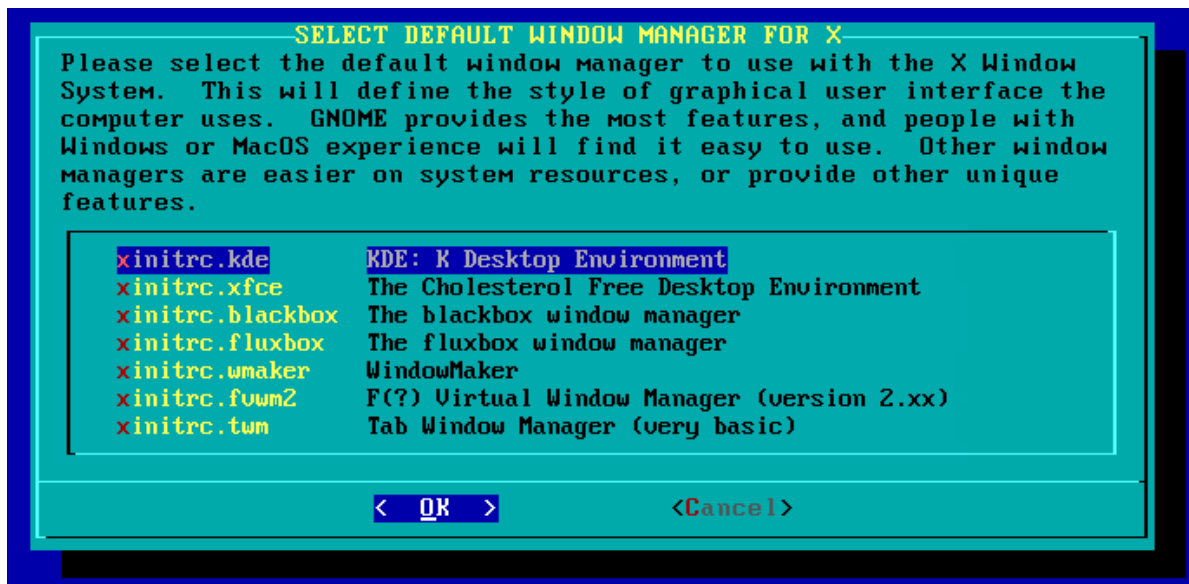
Figure 4. Selecting Your Preferred Window Manager Using xwmconfig

Figure 5. Finally, the Slackware KDE Desktop

suite—KDE's KOffice is bundled instead.

One thing you will want to do if you decide that Slackware is the distribution for you is to get familiar with the command line and the administrative utilities. All administrative tasks are done on the command line—from package management using Slackware's pkgtool utility to selecting your preferred desktop environment using the xwmconfig program.

This reliance on administration via the terminal is done on purpose. As I said earlier, Slackware consciously tries to be a very UNIX-like distribution. As such, it eschews graphical configuration and administration utilities in favor of the UNIX com-mand line whenever possible. A good resource for learning Slackware, apart from the official documentation at http://www.slackware.com, is from the Slackware Handbook Project at

http://www.slackersbible.org.

Package management in Slackware is different from other distributions. In Slackware's case, it was not done simply to be different, it was done because when Slackware arrived on the scene, package systems like Red Hat's RPM or Debian's apt simply did not exist. Instead of inventing its own package format, Slackware opted to use specially created gzipped tar files. These special .tgz package files are installed using the pkgtool program, which is, of course, command-line-only.

Although many of Slackware's unique ways of doing things can be traced back to it being the first on the scene, it does try to incorporate good ideas that came later. An example of this is slapt-get, which mimics the excellent Debian style of package management while still using Slackware's native package format.
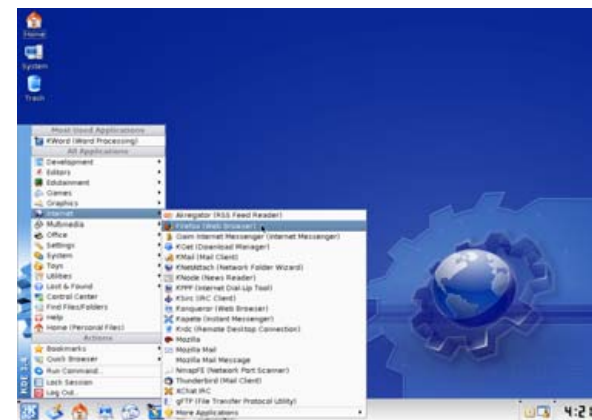
As someone who has used Slackware before, I was ready for its limitations. I also was very happy with the speed and stability that comes with the slow development pace. Everything was rock solid. If you come at Slackware with the knowledge that it is what it is and it is not trying to impress anyone with a long list of hot must-have features, you will not be disappointed. There truly is something to be said about the old saying "slow and steady wins the race".

Slackware is an excellent distribution. It is very stable and reliable. It is also not a distribution you would give to your grandmother. If you want to use Slackware, you need to take the time to learn its unique way of doing things.■

Daniel Bartholomew has been using computers since the early 1980s when his parents purchased an Apple IIe. After stints on Mac and Windows machines, he discovered Linux in 1996 and has been using various distribu-tions ever since. He lives with his wife and children in North Carolina.