What could be easier than Linux?

Complain to improve Linux

TUX

Secure your Linux Desktop
The intro to a series of easy techniques

The Gadget Guy
Handy dandy storage devices →

Excel with Openoffice.org Calc

WE KICK OFF OUR SERIES OF HOW-TO ARTICLES FOR THE OPENOFFICE.ORG CALC SPREADSHEET WITH THE BARE BASICS. STARTING AND USING OPENOFFICE.ORG SPREADSHEETS WILL BE A CINCH, THANKS TO TUX.

PLUS:

POST-ITS THAT MAKE SENSE
How a Tomboy can change your life
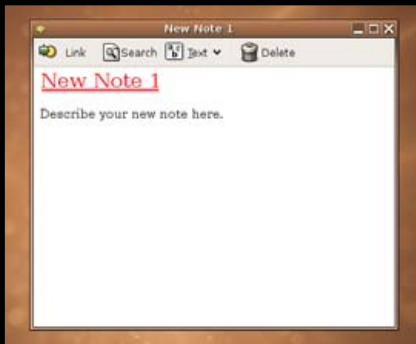
DO THE RIGHT THING
Why piracy hurts Open Source

TROLLING FOR CUSTOMERS
Why the Qt toolkit is good for Linux

This month's Mango Parfait:
- Tips on dual boots
- Set numlock default in GNOME
- Nuts and bolts for would-be geeks
- Mango acts her age

20 Tomboy

23 Calc

30 GIMP

35 Qt

TUX

ISSUE 4

JULY 2005

CONTENTS

COMING NEXT MONTH
TUX shows you how to set up and use Guarddog to secure your Linux desktop and continues its series on how to get the most out of the OpenOffice.org spreadsheet.

41

42
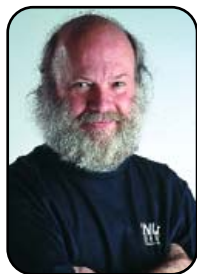
FROM THE PUBLISHER

Easy Does It

A day in the life of a publisher is just too easy thanks to Linux.

PHIL HUGHES

After a few false starts on this month's column, I went to one of my regular Web sites, http://www.tuxmagazine.com, and read some of the comments. What I read inspired this editorial.

I read a "friendly argument" about which is easier, Microsoft Windows or Linux. That is, easier to install, easier to use, easier to administer or easier on your sense of well being—all of these things. Is there consensus? On the Web site, no, but for me, yes. Each system is easier, in various ways, for each user.

This got me thinking about whether I do things the hard way around here. That is, there are Linux systems here. Would my life be easier if I had one or more non-Linux systems in my life? Let me think out loud a bit. You can listen in.

First, "around here" means a combination house/office in Nicaragua. I have an office upstairs with the desktop system I am writing on and what could best be called a test system. There is also a laptop in my life (there used to be two, but one recently died) and another system downstairs in the living room.

The living room system is mostly there to keep family members and neighbors away from my office systems and, well, my office. Regular users on that system include an adult non-geek and two teenage girls. Occasional users include many other people.

Although a failure in that system doesn't put me off-line, having something reliable there means that I don't have to stop working (because I have my own system up here) or share my other systems. The "public" system has proved to be totally reliable in spite of kids pushing the off button when they shouldn't, power failures and the general lack of computer knowledge of the people who use that system.

The first plus I have with Linux on that system is that I have multiple logins. The guest account is set up in Spanish because most people here are native Spanish speakers. I do have, however, another login in English for out-of-town guests. The most difficult transition between languages is for an English speaker to find the right menu choice to end the current session and get a new login prompt, because the menu is in Spanish.

Let's talk a little more about these users. One has some limited experience with a Windows-based system. The other two regular users have never used Windows. That means they are learning from nothing. Are they having any troubles? No. They send and receive e-mail, play some games and, for the most part, just do things on the Web using the Konqueror browser.

In the last year, I have had to fix a problem on that system only once. They were trying to play some music on CD. Things looked okay, but there

was no sound. It turns out that someone (we suspect a little brother) had managed to load the audio mixer panel and set the CD volume to 0. That's it.

Moving up to my office you will find about 1,500 songs from CDs on the test system. I loaded the CDs and ripped them into Ogg Vorbis format because it is very compact. As it is a test system, I put them on a removable hard disk just in case I want to do some serious playing. But, as it is, any of the computers can access that music. That's a lot easier than trying to find where the *Workingman's Dead* CD seems to have run off to.

I loaded Ubuntu Linux on my test system before writing the Ubuntu Linux review for the *TUX* Web site. I am completely happy with it and will continue to run it there.

I also have loaded Ubuntu on the laptop. Although it's not perfect (it will not hibernate with the Wi-Fi card plugged in), it isn't imperfect enough for me to want to load something else or actually fix that particular problem. That is the only problem I have experienced.

Now that all the non-important stuff is out of the way, let me talk about what I do on this desktop. Maybe we can figure out why Linux isn't the best choice.

Let me divide my computer use into work and play. Now, for me play is not like most people. I actually write programs as my fun activities on computers.

This will be a strange concept to most *TUX* readers as well as most of the world. So, let's just ignore that part and get on to how I use Linux-based computers to get my work done.

The first thing you need to know is what my job is. Even people who work for me have asked what a publisher does. Sometimes, I ask myself that same question. The best answer is that he does all the leftovers in producing magazines. I do all the undefined, strange stuff that you don't see in each issue but has to get done.

That work includes a lot of communications with the rest of the staff, writing, setting schedules and priorities and keeping track of a lot of general concerns. I generally describe my job as a high-end clerk, but others point out that a lot of background is needed in order to make decisions. While part of this job is not having typical days, let's look at what could be considered a representative day. I'll pick yesterday.

First on the list was to go through a lot of e-mail that I had received since the previous evening. I use mutt as an e-mail client. It is not pretty at all, but it works well for me because I have used it for years and use it a lot. I don't need fancy stuff requiring mouse clicks to get in my way—I need efficiency. mutt offers this efficiency.

I also need to be able to handle encrypted e-mail easily. This capability is integrated into mutt, so all is well for me. If, however, I wanted to use a graphical e-mail reader, there are a lot of included choices. One, Kmail, is very easy to use, offers features to work with virtually every type of mail account and handles encryption.

I also access one mail account using a Web browser. This is fairly low volume, but it is important to have that account in case I am away from a system that I have control over. I can read it with any Web browser anywhere in the world. I use Firefox as the browser for this account on Linux, but there is nothing special about using Firefox as opposed to another browser.

Moving along in my day I need to "chat" with one of the people I am working with. He is up early by my standards because he is in Australia. Although there are many chat protocols, we use Jabber. One of the reasons we chose Jabber is because we can create our own secure Jabber server. We don't have to take the risks associated with using other chat protocols that use commercial servers.

I use Gaim for my Jabber client. Again, there are lots of choices, but it has a look and feel that appeals to me and it works well. In addition, it supports other protocols including AIM, ICQ and Yahoo IM. I seldom use the other protocols, but having them available means that if there is a problem with our secure Jabber server, I have another way to talk to people.

In my conversation this morning, I was sent a URL of a Web page I needed to open up. Gaim highlighted it. I clicked on it, and it opened a browser, which displayed the page for that URL.

In the morning e-mail, I received a PDF document I needed to read and another created in Microsoft Office. No problem; my e-mail client opened up Adobe's Acroread for the PDF and OpenOffice.org for the Word document. Possibly better than no problem, if either mail had contained a virus, it is unlikely it would attack my Linux system and, beyond that, because of the design of Linux, a successful virus in e-mail still could do little damage.

Time to take a look at our *TUX* Web site. Nothing magic here, but I tend to use Firefox for this, and Konqueror for other things. I keep Konqueror up on one desktop and Firefox on another so it is just a mouse click to get there. The multiple desktops also make it easy for me to have a lot of stuff waiting on my sometimes-slow Internet connection.

One new comment pointed to a possible bug with the magazine delivery system. I reported this using DCL, a project-tracking and reporting system. It has a Web interface, so I had only to switch to a different tab in the Web browser.

Phone call. I use Skype most of the time. It runs on your computer and offers voice-over-IP service. It runs on Linux as well as other platforms.

Now, what's for lunch? I guess you can't do everything with Linux. Well, some people can—they might have a microwave running embedded Linux to heat up those leftovers, but I don't.

Moving further into the day, Nick had asked me to write an editorial. Well, here I am. The file I am writing is just text, and I am using vi, my favorite text editor. But, for word processing, I have my choice of OpenOffice.org, Kword and AbiWord. It's all here—I simply pick the tool that appeals.

Next, I get a request that doesn't have to do with work. Can you put the photos from the party (last night) on the Web? Okay. I use digiKam to grab the photos from the camera and then Konqueror to create a Web page with the photos.

During the day, I also made some changes in my Palm Pilot PDA and some changes in JPilot, the PIM application I run on my desktop. I synchronized the Pilot with the program JPilot with Bluetooth.

As the day goes on, I do more e-mail, go to more Web sites, chat using Jabber more and edit more text files. I wrote a little six-line program in Ruby to get the answer to a question I was asked. And, I downloaded and watched a movie (QuickTime format) about setting up some software.

That's my user side of using Linux. I can't think of anything here that could be easier—no matter what system I am using. It all just works. But, what about

administration?

Other than performing occasional backups (I tend to archive to CDs using K3b to write them and do disaster backups to magnetic tape using tar), I haven't done any administration—in ages. Checking, I see the computer has been up only 15 days since the last reboot. Why? Because the power was off for a few hours 15 days ago.

One other administrative function I perform is on-line software updates. Although this could be completely automatic, I picked the "do it when I tell you" option. So, that means bringing up the update program occasionally and then agreeing with its choices.

I could talk about how easy (or hard) the system was to install, but it was done long enough ago that I really just remember putting in the DVD and answering the expected kind of questions (time zone, IP address, hostname and so forth). Next time I upgrade this system, I will see if Nick wants me to tell you how difficult it was. Of course, you will have to invent your own comparison as I have installed Linux only in recent history.

Guess that's about it. I just need to run the spell-checker on this file and e-mail it to Nick. Then I will do some after-work shopping, looking for that Linux-based microwave oven.■

Phil Hughes is Group Publisher for SSC Publishing, Ltd.

FROM THE EDITOR IN CHIEF

How to Make Linux Perfect for the Desktop

How you can help to make Linux a better desktop operating system.

NICHOLAS PETRELEY

Here's how to make Linux a better desktop operating system for all users. Complain. I'll explain in a moment.

Linux is already perfect for many desktop users. Almost every distribution includes every possible application a normal user could want or need. It runs flawlessly. For this particular user, the chosen Linux distribution supports all the peripherals. Everything works, including the scanner, the wireless or LAN network adapter, the printer, the funky keyboard with all those special keys, the latest mouse, the DVD-RW drive and even the Wacom drawing tablet. Normal programs never crash. Programs that are still under development may crash, but Linux is so robust that the crash doesn't affect anything else running on the system. You simply need to restart the unstable program. The Linux desktop is almost impervious to viruses and trojans, and few, if any, exist (known malicious software is usually targeted at server software, and even those programs rarely do any damage). What could be more perfect than that?

But Linux is not perfect for all desktop users. Last year, I bought a Samsung Laser printer because it is dirt cheap and offers high-quality printing. It also has a "toner-saver" mode for those times when you don't need a professional-looking printout. There was no "in-the-box" support for it with any version of Linux I tried. I had to download drivers from the Samsung Web site. The installer for the drivers didn't work on my machine. I hacked my way into getting the printer to work. Fortunately, I was a programmer in a former life, so I'm

rarely intimidated by obstacles like these. But no normal user could or should have to guess how to solve a driver problem like this one.

Most of the current Linux distributions include support for this laser printer now. The lesson here is that, in many cases, if you wait long enough, Linux will support the product you bought. This is unacceptable, of course, if you want the product NOW. But it is currently how things work.

The down side is that there's also no telling how long you'll have to wait. For example, the only Linux distribution I know of that supports my Linksys WUSB11 version 2.6 USB wireless network adapter is Linspire, and this adapter has been around so long it is practically obsolete. It is a nightmare to get the adapter configured properly on any other distribution, because it doesn't compile with the latest kernels, and there are no clear instructions on how to configure this adapter for permanent use.

At least geeks like myself can get that adapter running. No Linux distribution currently has a chance to support the Visioneer OneTouch 9320 scanner I bought a few weeks ago. Why? In part because it's fairly new, and nobody in the Open Source community has reverse-engineered a working driver for it yet. There's no telling how long it will be before I can use this scanner with Linux, if ever, but I can take the CD out of the scanner box and install the driver for Windows without any problems.

Moral: for anyone who wants to use the OneTouch

9320, Linux is not the perfect desktop. For anyone who wants anything new that is unsupported, Linux is not the perfect desktop.

In fact, the most common complaint about Linux is lack of driver support for the most recently released products. One of the most frequently asked questions we see on Linux Web sites and forums everywhere goes like this: "How do I get my [this model of printer, camera, whatever]

was a brand and model you would have preferred to buy, complain. Loudly, and repeatedly. Call and write Visioneer, Hewlett-Packard, Canon, Samsung or whomever, and complain that you can't use their product with Linux.

Call and write the manufacturer of the product you really wanted. Tell them that you didn't buy it because it doesn't work

enough of a demand for Linux support, a company will supply it.

I can't repeat or emphasize this part of the advice enough. If you have even the slightest preference for any product that doesn't work with Linux, don't be content to buy an alternative that Linux supports. Complain to the manufacturer of the product you really wanted, and rub it in their faces that you will have to buy a competitor's product because the

IF YOU ALREADY BOUGHT SOMETHING THAT DOESN'T WORK WITH LINUX, CALL AND WRITE THE MANUFACTURE AND TELL THEM THAT YOU'RE RETURNING THEIR PRODUCT AND EXCHANGING IT FOR A COMPETITOR'S PRODUCT THAT DOES WORK WITH LINUX.

working?" Sometimes there are solutions. Sometimes there are not. When the solutions exist, they often involve operations that no average user would or should ever have to perform.

THE ANSWER

There are two solutions to this problem, and I strongly suggest you use both:

1. If you are about to buy any new device, find out which brands and models are supported in Linux, and choose from among those models.

2. This is far more important. If there

with Linux. More important, tell them which product you bought instead, because it did work with Linux. If you already bought something that doesn't work with Linux, call and write the manufacture and tell them that you're returning their product and exchanging it for a competitor's product that DOES work with Linux.

The complaint approach will work only if everyone takes my advice. One call from a disgruntled would-be customer means nothing to a company. So they lost one customer. So what? On the other hand, thousands of calls get results. That's called demand. When there is a

competitor's product works with Linux. Wait a week. Call again and tell them that you still really want to buy their product—ask them if it is has Linux support yet. Do that again and again, week after week. If enough people follow this advice, and enough people are vigilant about doing it repeatedly, I guarantee you will start to see Linux support for almost every product on the shelves of Best Buy, Circuit City or anywhere else you shop.■

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

LETTERS

Thanks for Writing

Thank you for all your letters. We at TUX *wish we could print them all, but space requirements prohibit this. We also wish we could help you solve some of the problems you may be having, especially those who have problems with the* TUX *PDF file (such as the person who said KDE's window manager crashes when escaping out of full-screen mode). Unfortunately, many of these problems are unique to a particular installation or configuration and would require gobs of additional information (and time) to find your particular problems, so there isn't much we can do on an individual basis. As for the more general issues with publishing* TUX *as a PDF file, rest assured we are working hard to make* TUX *as easy to use and easy to read for as many people as possible. So keep sending us your suggestions and complaints. They may not make it to print, but we are paying attention.—Ed.*

Making XMMS Big

I read the response to Valerie Higgins' letter "Reading the Small Print" [*TUX*, June 2005, page 6]. Her letter dealt with the XMMS small print, or rather the small size. I carefully re-read the editor's response to her.

Needless to say, the red flags went up like crazy—this ain't right. I have XMMS up and running as I write on MEPIS Linux 3.3 on a 17" monitor at 1280x1024.

However, there are some letters that run down the left side of XMMS next to the digital timer/equalizer bars. They go like this:

O
A
I
D
V or U

I guess you could say very few people ask "why?" I did, and from the very first clicked all of them to see what they did. It just so happens that clicking the D doubles the size of the skin to a much more readable size.

I hope this helps. Of course, I am taking for granted that XMMS has the same basic black skin with blue and white lettering for other distro's besides MEPIS.

--
Dennis

Well, dang if you ain't right. This is by far the cracker-jack solution to the itsy-bitsy size of XMMS. If we old folks had eyesight like you young whippersnappers, we might have found those letters and played with them enough to find out what D does. Unfortunately for some of us, like this old flatulence here, we picked a skin that just has dots or other bumps instead of letters. I guess we's magically supposed to know these

dots ain't there fer just decoration. But to all you other old folks at home, press the dot next to the bottom, or the letter that'd look like D if you got out yer magnifying glass to look at it. Bingo. XMMS is big. It ain't so pretty without anti-aliased fonts, but at least we old folks can see it. Thanks, Dennis for your observation!—ye olde Ed.

Go Mango

I just read the letter entitled "Disturbed by Mango" in issue 3's letters and think your response was excellent and appropriate. Coming from an Irish background, I feel that if I can enjoy a good Irish joke, then others should not get wound up by other light-hearted ethnic puns. Learn how to laugh it off is my suggestion to those folks. If something is clearly not intended to offend or denigrate, then why get upset? Well, I think some people aren't happy unless they ARE upset.

I also like Mango's light-hearted approach. Just because *TUX* is a technical mag doesn't mean it has to be all earnest overtures and business-world tone. I get enough of that in the plethora of unnecessary meetings I have to attend each week, so people can put on their best suits and play Captain Corporate. As far as I'm concerned, if Mango teaches me stuff in her column, I'm really not too concerned as to how she goes about it. So more power to her!

--
Dave Rogers

Pun, Anyone?

Hear, hear! I commend you on your decision to tell a PC pundit to take a hike. It is truly sad that that *some* people cannot accept a simple pun anymore.

As for the pundit: take your politically correct rhetoric somewhere else. I'll bet most readers are here to support their favorite OS and maybe have a laugh in the process.

--
Jon

Stand Up for Mango

I was reading Mr Phelps letter, "Disturbed by Mango" [*sigh*] and was hoping that in your response you wouldn't cow-tow to that sort of thinking. I was glad to see you stand up for Mango...too often businesses take the easy way out and, rather than risk offending someone, simply apologize for no good reason. I guess it's true that no matter what happens someone will find a way to take it too seriously. Please keep up the great work, and tell Mango to keep her articles interesting to read!

--
Dana McNeil

Bad Mango

Friends: I'd like to echo the responses written by Scott Phelps and Brian Sexton, as published in the third issue. As an absolute newbie to Linux, I'm looking forward to the helpfulness of the publication, but I, too, decry the tone of the Parfait column. You responded to Mr Phelps "There is no possible

way to twist...." I beg to differ strongly; there are hundreds of ways to twist such material, and the taunters and bullies of the world are experts at doing so. Although I don't enjoy the "froth" of Parfait, I'll look past it to find the pearls of wisdom. It's okay to have fun with your publication, but fun at someone else's expense is unacceptable. In the examples already noted by Mr Phelps, hundreds and perhaps thousands of "someone elses" were targets; that this was unwitting is no excuse. Please consider discarding such references and practices in the future and thus raise the level of communication to a higher standard.

There are plenty of worthy directions in which to expend your collective efforts in bringing out a useful publication. For example, in the article about installing MEPIS 3.3, author Roy Brander wrote "It's not stupid to want exact instructions the first time you tackle something!" But I found that the steps included in the article for obtaining and using Smart Boot Manager didn't work; I had to insert a step at which I transferred the downloaded file to a floppy diskette first, before typing the smbimst command (if that's what it indeed is....I'm too new to know even that for sure). And I also found that all of the info links on the SBM Web page that was given in the article were broken. I had to use Google to search for SBM at a different site in order to get access to such useful things as documentation. Lack of attention to that sort of detail points to the need for more editorial effort aimed at the utility of the publication.

--
Robert Gates, (no known relation to you-know-who)

Opinions

"...a passionately strong supporter of Israel.....Mango insists she is entitled to her opinions..." OF COURSE SHE IS, especially in a society where one could get away with multiple rapes (and murders) but not a tiny unintentional hint that might somehow be misinterpreted as being slightly touching any criticism of the weak, fragile (Mosad-lacking), heartbreaking, poor, underfunded, never-involved-in-any-kind-of-espionage-especially-against-allies, deprived of any kind of international support, honestly peace-seeking, unaffiliated with the notorious Sabra and Shatilla or Der Yasin massacres, oppressed, surrounded by monstrous superpower (and very very STRONG and capable) enemies, underarmed, famine struck, never-harmed-a-fly and the absolutely-unsupported-by-a-lobby-stronger-than-the-president-of-the-united-states-himself heart-breaking STATE OF ISRAEL. POOR MANGO, she's just using constitutional rights to show passionate support [in a technical computer magazine!!!!!!!] of a leviathanic political force that can efficiently crush any opponent....How brave of her, how courageous, how honest and righteous....Good work Mango, you skillfully kept your job and the approval of the surrounding "society" but (and now it's my turn to say my Opinion) on the way, I think you either lost your common sense or your dignity.

--
Bashar

Both you and Mango have a right to your opinions. She gave hers in a few words. We just published yours in its entirety.—Ed.

Autopackage

The article by John Knight in the third issue was great. I too had run across Autopackage and felt it was about time for this in Linux. Being a developer, I've felt there are way too many choices when it comes to trying to distribute my software. When I suggested in the past that there should be a package like this, it was promptly put down as a bad and easy way to have bad programs install in Linux. My response is that I could get a bad program distributed to me in an RPM or DEB format, but I was told that that just wouldn't happen. It seems as if the need for security was greater than the need for simplicity. Then it came to my attention that an open-source package, NSIS (http://nsis.sourceforge.net), a scripting language to create easy-to-install software on Windows, had similar issues with bad software. People need to know that virii, trojans and spyware will be part of our everyday computer life, just like we have bugs that invade our homes. Just because we want to keep things difficult will not stop these intruders. We need a single method to distribute software to Linux systems. It does need to be simple for users, but it needs to handle the complexities of making sure that all libraries and other needed software is installed on the system where it is to be used as well. Hopefully, Autopackage will become widely used, then we can have a tool like NSIS for Linux to make building installation packages easier also.

--
Jim Ward

Easy Installs Needed

John Knight's article on Autopackage is right on the money [June 2005]! Unless Linux adopts an easy-to-use, one-click software configuration, all is lost and new users will quickly abandon this OS for Mac and Windows.

For instance, in the same issue, Quasar Accounting was reviewed. The reviewer stated that installation was easy. Simply download the client, server and icu packages and install. Hello!!! How the heck do I do that?

Luckily, there's a single Windows .exe file available for download. I'm switching over to my Windows partition to single click on this and try out Quasar Accounting. Right now, I can't do this in Mandrake without jumping through a whole buncha hoops (I'm an Average Joe Linux User).

If Autopackage were available with Quasar Accounting (and other software titles), I'd have no need to reboot into Windows. Linux needs to make software installation a no-brainer. Can anyone please tell me how to upgrade from Mozilla 1.6 to 1.7 in Mandrake? In Windows, I just download an .exe and install. Bingo! Mozilla is upgraded. Having the same easy approach in Linux will keep me, others and new users in the OS.

--
Mark Szorady

GRAMPS

This is in regards to Herb Taylor's letter in the 3rd issue. Mr Taylor asks about a good genealogy program for Linux. I would like to point him to GRAMPS (http://gramps.sourceforge.net). It runs great on Red Hat/Fedora and SUSE (SUSE 9.3 is my distro of choice) and has a lot of nice features.

--
Kevin W. Peters

Editorial Calendar

From the back page of your first issue, I was looking forward to your May edition as the "Home Entertainment" special. I was disappointed to find no mention of the topics you had advertised. What happened? And, are these topics scheduled for a later issue?

--
David Jenn

The editorial calendar is designed primarily for advertisers who may want to match ads for their products to the issue topics. We have been straying from it for various reasons. For example, sometimes the articles we assign to address a topic are not up to snuff, so we print better articles in their place, even if they are off-topic. But the main reason we stray from the editorial calendar is the catch-22 of advertising. TUX is on the bleeding edge. Although we are certain that Linux is growing on the desktop in a big way, many advertisers are not

yet convinced. It takes cold hard cash to fund the people-power necessary to produce a magazine that can always be on-topic, every month. As TUX gathers more and more advertisers, we will have the funds necessary to get on schedule and stay there. So keep your eye on the calendar. At some point, we will be able to follow it more closely and, eventually, follow it with gusto.—Ed.

Font Size?

Your response to Valerie Higgins letter was the most condescending and arrogant reply I have ever seen in a magazine. I might be willing to lug the +31" monitor onto the plane so I could read your nasty responses on my laptop, but I'm afraid I might have some difficulty plugging it in to a power source. But the issue is really whether you want people to be able to read your publication on or not. You use an insanely small font and then blame the viewer for having such poor eyesight and recommend that your customer jump through a hoop and wear reading glasses over their regular glasses to be able to read your wonderfully exciting rag.

Better idea. The thing is electronic anyway. INCREASE THE SIZE OF YOUR D___ FONT! You could do this quite easily. So do it.

--
L. D. Matteson

Advice

Hi, My name is Jason Holland and I am a recovering Windows user. I have been Windows-free for six months and nine days now. I would like to thank the staff of *TUX* magazine for being a wonderful sponsor.

I want to thank the Editor for supporting Mango's freedom of speech, and "strongly" mentioning that people are far too sensitive. I am a firm believer in laughter as a preventative medicine, and many times it relieves a lot of stress, if only for a moment.

In regards to your article in the June 2005 issue on Quasar Accounting, which was wonderful, I will quote the first paragraph: "One of the biggest-claimed obstacles slowing the adoption of Linux on the desktop of small and medium enterprises (SMEs) is the lack of certain types of software...."

I would like to point out a few business applications that I feel are missing:

- A program for flow-charting at the same level of capability as Visio.

- A program for project management, feature-rich and competing with Microsoft Project.

- Several browser plugins like Shockwave Flash. And no I don't mean Flash; I mean Shockwave

Flash. It is entirely different. Many of the business applications today are moving to Web-based technology (such as training applications), and they require Shockwave and other technologies that currently are not supported on Linux, like Windows Media Player 9.

I am aware of a lot of applications that are similar, like Kivio, Dia, Planner and the like. However, not all of these applications are available by default in each distribution. In addition, many companies are developing applications that "require" Windows Media Player, Internet Explorer and other items that are specific to Microsoft and cannot be installed on Linux. A perfect example would be Windows Media Player 9. I have tried many times to install and configure it on Linux to no avail—even with CrossOver Office.

To sum it up, here is an idea I have had that has been brewing since issue 1. Have a monthly article that covers a single common office function/application, what's available, and how to install/use the most common or best of the products available on the market. These are a few article titles that may give you a better understanding of what I mean: "Productivity Corner", "Open Source - Office Applications", "SOMO (Small Office Medium Office) Application Solutions", "It's not just for Microsoft anymore...", and "COST (Complete Office Solutions Technicals)".

--
Jason Holland

Endless Chains of Links?

I like *TUX* magazine, and playing with Linux has become my newest hobby.

PLEASE make good on your promise regarding help concerning hardware configuration. Step-by-step instructions regarding software installation also would be helpful.

Unfortunately, I am perceiving Linux as the "Tower of Babel" of OSes. Many, many distros and on-line help links linking to other on-line links, etc, etc. Few, if any, sources of organized, concise information.

Thirty years of technical background, three weeks' effort, and I STILL can't get a silly Wi-Fi card configured. If I were doing this for a living, my boss would be FURIOUS with me!

Yes, I know there are many worthwhile applications for Linux. But touting them is not going to improve the overall state of the art, or adoption rate, of this intriguing OS.

--
Bob Grzesik

One of the missions of TUX *is to provide a compre-hensive alternative to "solve the problem by following endless chains of links" syndrome. Send an e-mail to mango@tuxmagazine.com about your Wi-Fi card problem. If there is a way to get it to work, she should be able to get you on track without sending you on any wild-goose chases.—Ed.*

More Macs and Linux

A friend of mine got me interested in Linux, and I have been playing around with the Xandros distribution on an old PC I had laying around. Mainly, however, I am a Mac user. I have several Macs at home running OS X, and I must say I've been pleased with how easy my Mac family members connected to their new Linux sister. I've noticed a lot of articles in *TUX* about Windows and Linux connectivity. How about some articles on Macs and Linux living together? Remember, we Mac users already hate Windows.

--
Idond

GRUB

I have been really enjoying the first three issues of *TUX*—great articles, pleasing format. Roy Brander's "How to Install Mepis 3.3 Simply" was invaluable in helping me decide which Linux version to try. It did leave me with a question, however. I intend to install Mepis on the second drive (hdb) of a system that is running Win98 on the first drive (hda). When configuring GRUB, do I install it on hda or hdb? Also, since I'm a little nervous about messing up the Win 98 Boot sector, is there a way to install GRUB on a bootable floppy or CD? Thanks for a great magazine.

--
Bob Stewart

In most cases it is safe to install GRUB over the master boot record on your first drive even if you have Windows installed. The trick is configuring GRUB to boot Windows after that. But it is pretty easy to install GRUB on a floppy. First, make sure you have edited menu.lst (which is just a link to grub.conf) to include boot instructions for both Windows and Linux. Follow these commands:

```
mke2fs /dev/fd0
mkdir /floppy
mount /dev/fd0 /floppy
cd /floppy
mkdir -p boot/grub
cd /boot/grub
cp stage1 stage2 menu.lst grub.conf device.map
/floppy/boot/grub
cp /boot/message /floppy/boot
```

Start GRUB with the command grub*, then issue these commands:*

```
device (fd0) /dev/fd0
root (fd0)
setup (fd0)
quit
```

If memory serves, that should do the trick for you. If we missed anything or it doesn't work for you for any reason, send an e-mail to mango@tuxmagazine.com, and she should be able to fill in any blanks and additions.—Ed.

Accessing Windows Shares

First of all, great magazine!! There are a lot of us Windows users out here that are new Linux users that really need some help and the mag is there for us.

There is an article in the June 2005 issue with the title "Linux does Windows" where the author says that you can access Windows shares through Konqueror with a few clicks of the mouse. I beg to differ. Unless there is some sort of explanation as to how you can do this in some obscure manual out in cyberspace, he is fairly far off-base. The article did not mention how you could accomplish this task. As far as I can tell, it takes a lot of command-line file editing to get this to work. It would be helpful if authors that make claims like this would actually explain how they did something and not just say that it is so. I have been going around and around in forums about this same subject. I have yet to see the simple solution.

--
Drew

There are simple solutions. For example, KDE Konqueror (especially the latest version, 3.4.x) makes it very easy to access Windows shares with a few mouse clicks, as long as you have the right supporting software installed. We have an article in the works describing how to do this. It was originally scheduled for the same issue as the article you read, but for various reasons, it has been delayed to appear in a future issue, hopefully next month.—Ed.

Read This Book

I am a new user to Linux. [...] I have found the following on-line and PDF book invaluable: *Introduction to Linux, A hands-on Guide* by Machtelt Garrels (http://www.tldp.org/LDP/intro-linux/intro-linux.pdf). It is updated now and again and explains the fundamentals of Linux in a concise and understandable manner. Again I have no connection other than as a contented reader.

--
Iain Mckeand

Digital Audio Workstation

Hey guys, the magazine rocks! I'm a linux noob about to install kubuntu on my laptop. I want to make it into a Digital Audio Workstation. Any suggestions on software to use? If it helps, I make electronic/industrial pattern-based music, using midi and samples. 1,000 Thanx.

--
the hematurge

It would take a book to describe how to turn Linux into a full-blown digital audio and video workstation. We will address these topics a piece at a time, though.—Ed.

Scribus

I was highly impressed by the landscape layout of *TUX*, issue 1 and its general concept. I was pleased to read in the June 2005 issue you are aiming to use Scribus from issue 4 onward.

I have been using Scribus for quite some time now, out of interest for DTP in general as well as producing my motorcycle club magazine, and because professional packages are simply too expensive for me. After receiving your first issue, I tried to create a magazine of my own along the same principles using Scribus, although of course I am not a DTP pro in any way.

It was fun to do and I learned more about DTP too. I will be looking forward to your next issue and wish you all the best in your efforts producing that with Scribus. It will be interesting for me as a mere amateur to see what a professional will accomplish!

--
Just Vecht

Gadget Question

I read with great interest the Gadget Guy's (Sean Carruthers) review of Gigabyte USB Flash drives in the March 2005 issue. However, being a newbie to Linux, I'm a bit perplexed at how one actually goes about using these things without opening a shell and issuing a bunch of jibberish. Has the issue of desktop mounting when inserting the key been

solved or is there a way script the mount procedure and maybe assign it to a keystroke shortcut? I apologize for the apparent lunacy of this question (at least from the locals I ask), but you state in your publication that it's for new users.

I read the first and second issues cover to cover without putting either down, so it's going to be difficult to wait until the July issue arrives for a possible answer. Hopefully someone will send me a tutorial or point me to a source. I've been searching but have not found the usable solution yet. That's the disadvantage of using a GUI where everything is done for you.

Thanks for a GREAT publication. I hope you have a long and prosperous run.

--
Bill O'Brien

Sean's reply: I'm still a relative Linux newbie myself—it's a good way for me to make sure that these gadgets are going to be relatively safe for Linux newbies too. During my testing, I was running SUSE version 9.1, and when I plugged the Flash drives in, detection was automatic and the drives immediately appeared as a removable drive, right next to the CD drives. I didn't have to do any scripting or reconfiguration in order to use them. I've since moved to version 9.3, and there's been no change.

It's my understanding that most recent versions of Linux should treat removable drives this way— the editors can provide a reality check here if this isn't the case, though—and it only makes sense. As Linux evolves into an operating system that's more and more friendly for newbies, stuff like this has to become automatic, or it's a failure for all concerned.

PCLOS

I've come across a distro called PCLOS and think it is properly suited for your target audience. I'd like to see a good review on it. The only complaint that I have is that the man pages aren't included, and I'd like to see if that is a valid concern or not. I'd like to know whether your reviewers think that this OS is as sweet as I do, and based on that, whether man is even needed anymore.

--
Nino

We are looking forward to printing a review of pclinuxos soon after the next version is released. This isn't the only distribution without man pages, and you raise a good question as to whether or not they are needed. Personally, I want them. But if a distribution is meant to be point-and-click, it's possible they aren't necessary. Each to his own.—Ed.

Linux to the Rescue

Six months ago, a spyware invasion crippled my computer. I knew a good friend who had used Linux for years, so he recommended that I install Fedora Core 3 and offered his help to get me up and running. Needless to say, I was overwhelmed at the amount of software available. How can one person ever learn to use it all? I have tinkered, played, learned much myself, posted help requests on various sites and made many mistakes. I was so glad to come across a link to your magazine. First, the magazine format is beautiful in Adobe 7.0 on my 17" monitor. I can sit back, relax, and read the screen just like a magazine! Additionally, it is simple, clear and perfect for someone like myself who is new to Linux. After reading your first two issues, I now can effectively use KGet, amaroK, digiKam and aKregator. Wow, I am organized and I called a friend this morning to wish her a happy birthday after my Kalarm went off! I look forward to a complete and lengthy article detailing some of the uses of the various office suites available (OpenOffice.org, Koffice). What a fantastic service you are doing for the new Linux user. Your publication should be a default on the desktop of every new Linux installation!

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Mark∎

Q&A with Mango Parfait

Cranky Mango solves a common GNOME problem and talks about partitions and files.

MANGO PARFAIT

Hello to everyone again! Thank you for all your questions. There are so many questions in my inbox it is very hard to choose which to answer. *TUX* is for desktop Linux users, so I will try to stay with questions about the Linux desktop and desktop programs. Again, I regret to remind you that I do not have time to answer e-mail directly. Please do not be insulted if you ask for a personal reply and do not get one. I also regret that this month I am very cranky and maybe some of my answers are cranky too. I try to work things out with my ex-boyfriend Otaku, but he complains that I watch too much *Azumanga Daioh* and I am becoming like Chiyo-san, a ten-year-old who makes older girls mad because she is smarter than they are. It is my favorite show. So if Otaku doesn't like it, I don't care. He can watch his favorite shows, and so can I. Okay. Now that I am done complaining, we can get on with the questions.

Q **Hi, I would like to know if I can install Linux on a secondary hard drive and keep Windows on the first drive for a dual boot?**—*Michael*

A Every decent distribution of Linux lets you do this. Each distribution may walk you through the installation for this in different ways, but they almost always give you the option to install Linux on the second, third or any other drive.

If your Linux distribution does not give you that option, you may need to install it in expert mode. Many distributions designed to make installation as easy as possible will assume you want to wipe out your first hard drive and put Linux on it. Read the installation screens carefully. If one says it is going to wipe out your first drive, do not continue installing Linux. These distributions often let you pick an expert mode somewhere during installation. This lets you tell the installer to put Linux on a different hard drive.

Here is the hard part. The expert mode and even some default installers make you partition the hard drive. This just means you are going to split up pieces of the hard drive for different purposes.

Here is how to make your life easy. Create only two partitions. One will be a swap partition. Don't worry about what this is, you just need it. Before you make any partitions, decide how big your swap partition will be. Linux geeks argue about the best size for a swap partition all the time. I make my swap partition twice the size of my installed memory. If you have 512 megabytes of RAM, make your swap partition 1 gigabyte. If you don't have a big disk, you probably can find a spam e-mail that will tell you how you can buy some goofy product that will make your disk bigger. No, I get that wrong. I mean if your second drive doesn't have a lot of gigabytes, then make the swap partition the same size as your RAM.

When you get to the part of your

installation where you have to partition your hard drive, choose the second drive (usually /dev/hdb or /dev/sdb) and create only two partitions. Make the first partition the root partition. Some distributions do not call it the root partition. They call it the / partition—same thing, different words. Define the size of your root partition by subtracting the swap size from the size of the whole disk. If you have an 80 gigabyte disk, and you want a 1 gigabyte swap partition, define the root partition to be 79 gigabytes. You probably will have to tell the installer what kind of filesystem you want to use. If you are a beginner, use the filesystem called ext3. If you are not a beginner, you don't need me telling you any of this.

After you create the root partition, create the swap partition and tell it to use the rest of the space on your drive. You may have to tell your installer that this partition is the swap partition. It probably won't figure that out by itself.

When the installer asks you where to put the boot manager (it probably will be called grub or lilo), tell it to install the boot manager on the master boot record of the first drive (usually /dev/hda or /dev/sda). Most of the best distributions have installers that will see that you have Windows installed. They will create an entry in your boot manager automatically

that lets you boot Windows instead of Linux. If you are not using one of these distributions, you may have to tell the installer to add Windows as a boot option. I cannot help you here, because different Linux installers handle this in different ways. The easiest way to make sure you don't mess up is to pick a popular Linux distribution with a good reputation. It probably will take care of the Windows boot option for you.

Q **Your oblique references to "If you knew Suse" (sic) are those of the generation that preceded mine. I believe your nom de plume and assumed identity is that of somebody considerably older. —Fred Kasner**

A Oh, stuff your conspiracy theories in your zoot suit! I used to be a waitress at an Asian buffet. If I had one penny for every time I heard the joke "If you knew sushi like I know sushi", I would be so rich I would not have to write this column. I never heard the song you say in your letter is by Eddie Cantor (I never heard of Eddie Cantor), but I hear this corny joke all the time. It would be easy for me to think of the same joke using SUSE, but this time blame my editor, who changes and adds too many things to my writing. I tell him not to add corny jokes

because mine are much more clever. I am very Americanized and I speak fluent English, but he still changes my words and adds to them. I would like to say that if he lived close enough I would turn him into a GIMP. I would like to say that. But a reader already complained that using the word GIMP is insensitive to handicapped people, so I will not say that. By the way, anybody who watches reruns of Daffy Duck or Popeye cartoons knows what a zoot suit is, so don't get any more conspiracy ideas.

[*Mango, you are lucky that I do not offend easily, and even luckier that the publisher, not I, hired you. I tried to leave more of your text alone this time. But if you come here with any ideas about getting tough, I will sic my attack parrot on you, and I don't mean (sic).—Ed.*]

Q **How do I set the numlock key to be on by default in GNOME?—John Q. Public (many readers asked this same question)**

A The important word is default. Here is what I want you to do. I want you to follow my instructions on how to make numlock come on by default in GNOME and count every keystroke and mouse click it takes to finish. If you have a Linux distribution that makes it hard to

find the program you need, you will make many more keystrokes and mouse clicks than maybe a Debian user. Count them anyway.

Here are the instructions for the easiest way I know to turn on numlock automatically in GNOME. Install a package that is called numlock or numlockx. Some Linux distributions call the package numlock. Some distributions call the package numlockx. It is the same program. The program turns on the numlock key when you run a graphical desktop like GNOME.

You can use this program with any graphical desktop, but you do not need it for KDE. KDE already has a configuration option for setting the numlock key, which is reason number 1,739 for why you should use KDE and not GNOME.

Another reason to use KDE and not GNOME is that some people say the numlock key makes GNOME go crazy. Maybe that is why KDE makes it easy to make numlock turn on by default and GNOME does not. GNOME does not go crazy for me with the numlock key on so I do not give it a reason number. But if it goes crazy for you, I told you to use KDE and you should have listened.

It could take pages and pages to explain how to find this package for every distribution. So here are only some common examples. The rest of you are on your own to look for the package.

If you are running Debian or one of the many Debian-based distributions (Knoppix, Mepis and so on), start up your package manager. Most Debian and

Debian-clone users seem to like the package manager called Synaptic. Find Synaptic on your desktop menu and start it. When you start Synaptic, you should get a pop-up window asking for the root password. Type the root password and press Enter. Then press the Search button and type the word "numlock" and press Enter. See Figure 1 for what Synaptic should look like now.

Click on the numlockx package listed on the right that you found. Click the Apply button. You should see what you see in Figure 2.

Click the Apply button in this window. Synaptic will install the numlockx package.

If you have KDE on your system, you can use Kpackage to install numlockx. Find Kpackage on your desktop menu
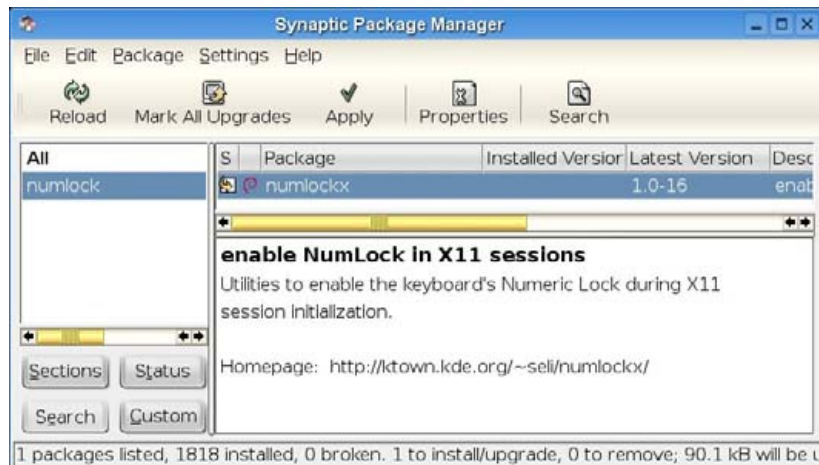

Figure 1. Search found numlockx in Synaptic.

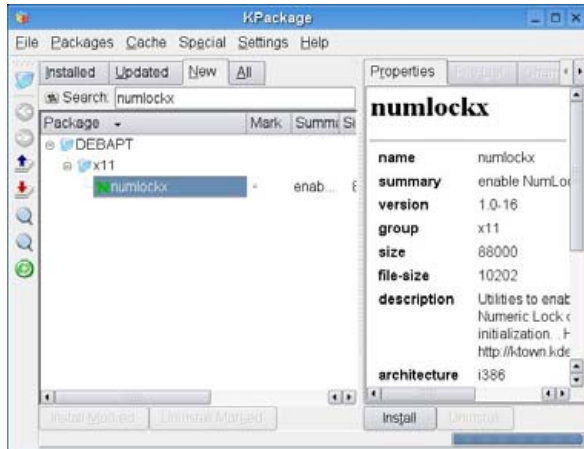**Figure 2. Synaptic about to install numlockx.**

Figure 3. **Installing numlockx with Kpackage.**

and start it. Click on the New tab. Enter "numlockx" in the search field. Highlight (click on) the numlockx package and click the Install button on the lower right. See Figure 3 to see what this looks like.

If you are using Fedora Core 3, use your browser to go to this URL: http://mpeters.us/yum/fedora/3/i386/RPMS.yjl/numlock-0.1-0.0.yjl.1.i386.rpm.

If you do not find this file, maybe the version changed. If that happens, use the browser to go to the URL http://mpeters.us/yum/fedora/3/i386/RPMS.yjl, look for the numlock package in the list and click on that package to download it.

The browser should ask you where to save the RPM file for the numlock package. Save the file to your desktop. Look for the icon for this package on your desktop when you are finished downloading. Right-click on the icon and choose Open with Install Packages from the pop-up menu. It will ask you for the root password. Type in the root password, and follow the prompts to install this package.

Now you need to configure GNOME to start the numlock or numlockx program every time you start GNOME. This example uses numlock as the program, but if your package is called numlockx, you need to change your typing to numlockx.

Look for the item Sessions in your GNOME menu. You probably will find it in the Preferences submenu, or even the More Preferences sub-submenu. Click on the Sessions menu choice. You will see a window like the one in Figure 4.

Click on the Startup Programs tab. See Figure 5 to see what you should see.

Click the + Add button. You will see a pop-up dialog like the one in Figure 6. Type "numlock" if the package you installed was called numlock. Type "numlockx" if the package you installed
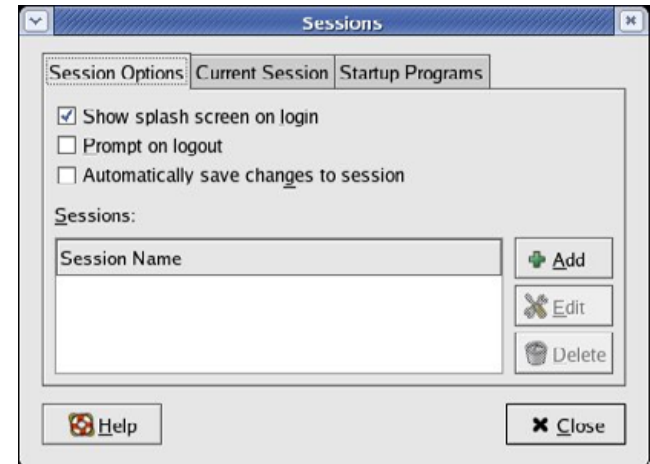

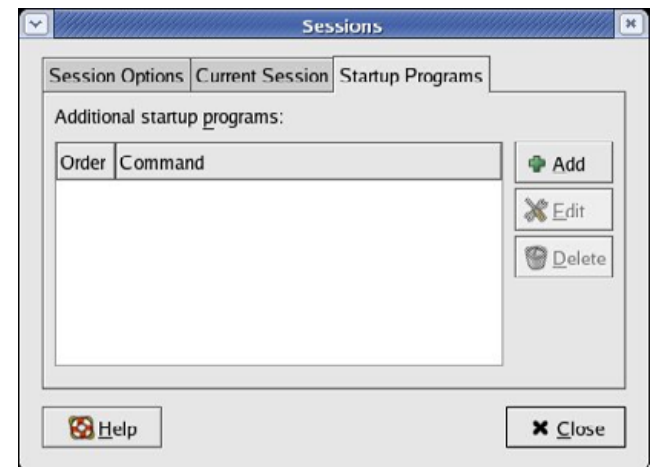Figure 4. **The Sessions Dialog**
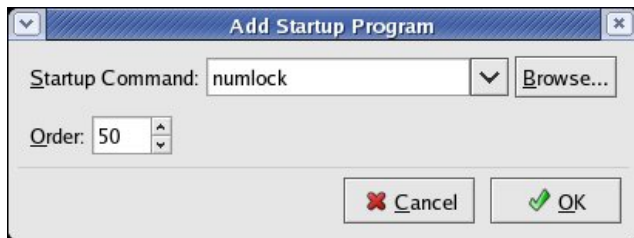

Figure 5. **Startup Programs**
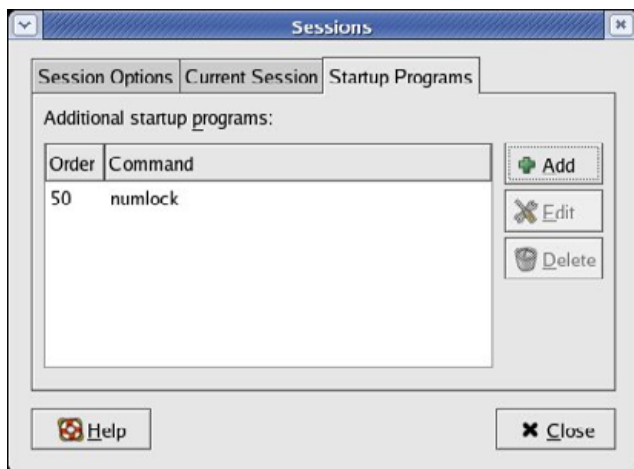
Figure 6. Adding numlock to startup programs.

Figure 7. The program numlock is added to the startup programs.

was numlockx. Then click OK.

If you do everything right, you should see something like you see in Figure 7.

Click the Close button and you are done. When you start GNOME again, numlock will be on.

Now here is an easier way that I know of to turn on numlock in GNOME. Start GNOME. If your keyboard has a numlock key, press the numlock key. You do not like this, perhaps, because it is not automatic. Did you count how many keystrokes and mouse clicks you made to install the package and make it run automatically in GNOME? 25? 50? 100? Maybe more for people who need to search for a package that works for them. That is how many times you need to start GNOME to make it worth the effort to make numlock come on without pressing the numlock key. If that is okay with you, what can I say? Zoot-suit yourself.

Q **Dear Mango, I have been through hell trying to find a basic CD set that explains Linux for the beginner. [I want] just the simple nuts and bolts and explanations of naming conventions (if there are any); how you recognize an exe file from another type of file and installing using the terminal (I don't know how many times I have tried to do the** `./configure` **and** `config` **and** `make` **and** `makefile` **from the terminal and not understood a word in the README files that makes any sense and then have the file extract in some far-off directory I cannot trace and then try to get a link to the desktop).—*Alec Jones***

A If you are not a Linux geek, why are you compiling your own programs? If you insist on doing this, my first recommendation for you is to seek professional help. I mean the kind where they give you mood-altering pills. My next advice is to stop making programs yourself and download a package that has the program precompiled and tested with your distribution of Linux. If you cannot find a precompiled version of any program that you want to install easily on your distribution of Linux, either you are not looking hard enough, or you are using the wrong distribution of Linux.

Okay, now that I have given you a proper whipping, I will answer your question anyway. If you really insist on making programs yourself and learning about the Linux filesystem, here is what I have to say. If you truly want to know the rules for the Linux filesystem, I would point you to the Web page for the Filesystem Hierarchy Standard (http://www.pathname.com/fhs). Most Linux distributions use this standard, more or less, and most Linux distributions break the standard too. So do not bother trying to decipher it. I can save you time.

Here are the basics. The /sbin directory is for necessary system programs to boot

Linux and to use if you are the root administrator. Don't put anything in /sbin. Let your distribution do that when you install packages. The /bin directory is filled with necessary programs any normal user can run. All the commands in /bin are commands Linux command-line users run every day, so they are given names that do not provide any clue about what the commands do—like cat, awk and grep. Do not put any programs in here either. If you disobey me and put something here, make sure you give the program a name nobody can understand.

The /etc directory is mostly for configuration files and startup files. The /usr/share directory also has configuration files, but it is used mainly for non-program files that have to be shared by every user on the system. Every program that a normal desktop user runs should be in the directory /usr/bin. Many distributions put important programs in other directories, so do not count on your distribution using this rule all the time. Most shared libraries go in /usr/lib.

Those are the basics. But if you are trying something as geeky as `./configure`, `make` and `make install`, then here is a thumb rule. If you make a program with only those commands, it is most likely going to install every-

thing in /usr/local by default. The programs will go in /usr/local/bin, the configuration files will probably go in /usr/local/etc, shared libraries will probably go in /usr/local/lib, shared files will probably go in /usr/local/share, etc., etc., etc. You can tell the `./configure` command to put all the files somewhere else, but that can get you into trouble if you do not know what you are doing. So, just let the `make install` put everything in /usr/local, and look in /usr/local/bin if you want to find the program you need when you create an icon to start it on the desktop.

One more thing. Your Linux distribution must already have certain paths set so that it will look into places like /usr/local/bin and /usr/local/lib automatically. If not, you probably won't be able to run the programs in /usr/local/bin. Most Linux distributions set these paths for you. If your Linux distribution didn't do that, the people who made your distribution were not very considerate. Uninstall it and try another distribution.

But my last word is to stop using `./configure` and find packages that are already compiled and use them instead.

You also ask in another part of your

letter how Linux knows when a file is a movie, an OpenOffice.org document or something else. Linux uses many different ways to do this, and it should know a lot about the kinds of files you have already. If you use KDE or GNOME, you can "teach" these desktops to use any program you want to open files.

Because you are brave and use the command line, here is a way to find out what a file is. Type the command `file <filename>`. It will tell you what type of file this is. Linux does not always care about file extensions. Try this to see. Find a graphics file like picture.jpg. Copy it or rename it to picture. Be more daring. Rename the file to picture.gif and try to fool Linux into thinking this is a GIF file and not a JPEG file. Now use the command `file picture.gif`. You see? Linux still knows this is a JPEG file. The wrong extension will trick some desktops, but not the file command. ∎

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.

Let a Tomboy Manage Your Notes

Tomboy is a notepad tool that goes way beyond what you can do with post-it notes.

SHANNON BAKER

What do you do with all those little snippets of information that everyone seems to be responsible for remembering? Do they end up on those little yellow notepads? You know the ones I mean, the ones with the adhesive strip along the back. The ones that end up stuck on the frame around the monitor screen, making it look like some sort of mutant daisy. I bet one or more of them is a list of login IDs and passwords too. I will hold most of my comments on that topic for another article except for one, little, shame on you.

So, what is it about those little notes that make them so ubiquitous?

After years of exhaustive research and analysis conducted at great expense, I believe I have uncovered the secret, and I am ready to share it now with my fellow readers of *TUX*. The secret is simplicity. Simplicity makes them not only easy to use, but it also means that they easily are used for whatever you want to use them for, whether that be for keeping track of passwords (shame again), recipes, phone numbers, lists or any other small bits of information you want or need to keep track of.

I always have found it odd that people, myself included, who are sitting at a computer would need to reach for a little yellow pad of paper to keep track of information. After all, isn't that what computers are designed to help us with?

A lot of people, and even big software developers, have tried to develop electronic versions of these
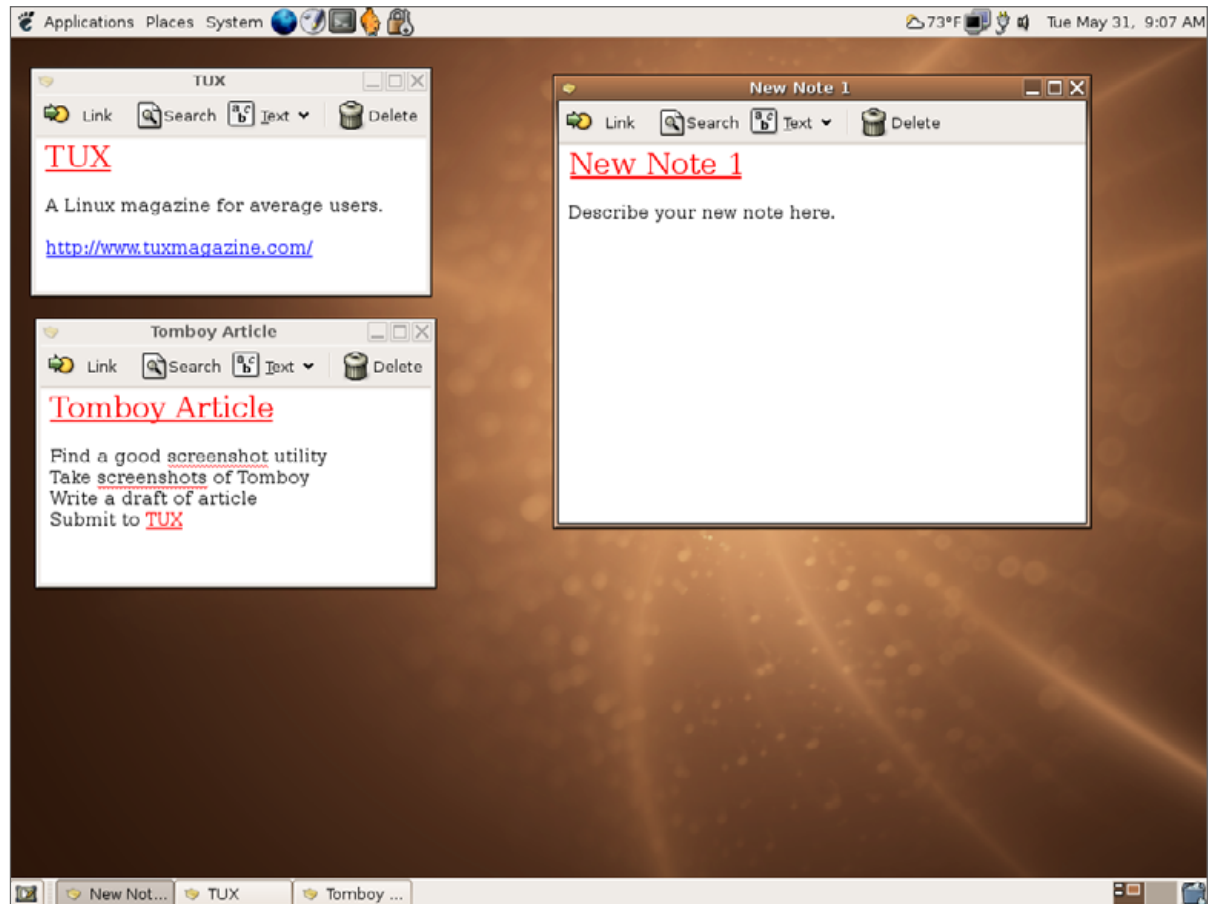

Figure 1. Tomboy Screenshot

little pads of paper. KDE has a notepad that looks like those 3M post-it notes. Microsoft even added its version of these things in Outlook. Most of these have focused on duplicating the look and feel of post-it notes rather than paying attention to the possible features a computer could add to the basic functions of post-it notes. For example, you can't do spell-checking on a paper note. But, computers are adept at tasks like search and spell-checking. I tried many of these programs, but still the paper petals around my monitor have remained.

Then, I began to explore the world of open-source software. I have found that not only the direct replacements for software such as Windows and Office were just as good, if not better, but I also have found really innovative tools and solutions without any equivalent. One of the tools I found is a software package called Tomboy from Beatnik Software (http://www.beatniksoftware.com), which as far as I am concerned, is an almost perfect replacement for those little yellow pads.

Tomboy (Figure 1) is a simple note-taking application that captures not only the simplicity and ease of use of the little yellow paper notepads but combines it with really useful features you will never find in ordinary paper—features such as rich-text formatting, the ability to link key words, spell-check and a search feature. Not only that, but like Firefox, it is designed to be extended easily through the use of plugins.

Tomboy runs as a panel object on the GNOME desktop. Once you add it to your panel, it always runs in the GNOME toolbar.

Here's what you do. Install the Tomboy package, and then right-click anywhere on the GNOME panel, and click the option that reads Add to Panel. You will see a list of applets that can be added to the panel; simply scroll down

until you see the entry for Tomboy and select it. Once this is completed, Tomboy is ready for you whenever you log in. When you click Tomboy (Figure 2), the icon opens a menu that allows you to create a new note, access a recently created note or search through all your notes. This easy access is one of the best features of Tomboy. It is easy to access any feature, since it is never more than a couple of clicks away. It is just as easy to create a new note in Tomboy as is it is to reach for that pad of paper.

Once you open a note, simply start typing. Don't worry too much about spelling because spell-check automatically highlights misspelled words with a red squiggly underline, exactly like in your favorite word processor. Also like a word processor, you can format the text. You can bold, highlight, strikeout and italicize text. You also can change the font size from small to huge; simply select the word or words you want to change, and then click the text button on the menu and you are good to go (Figure 3). It is all rather intuitive and most likely takes longer to explain than it does to learn on your own.

The linking feature is probably the most com-

Figure 2. The Tomboy Menu

plicated feature. Select any word or phrase in your note and click on the Link button. Then, you can create a new note with the selected word or phrase as the title. Now, the word or phrase you chose, and every other occurrence of the link word or phrase, in every note, automatically becomes a link to the new note. This is a powerful feature. If you create a task list, for example, you can link each task to a detailed description on a separate note. It is only a click away. It is as simple to organize thoughts and ideas as typing a name and then pressing the Link button. The links between your ideas won't break. If you rename a link, it does not break the existing links. As a
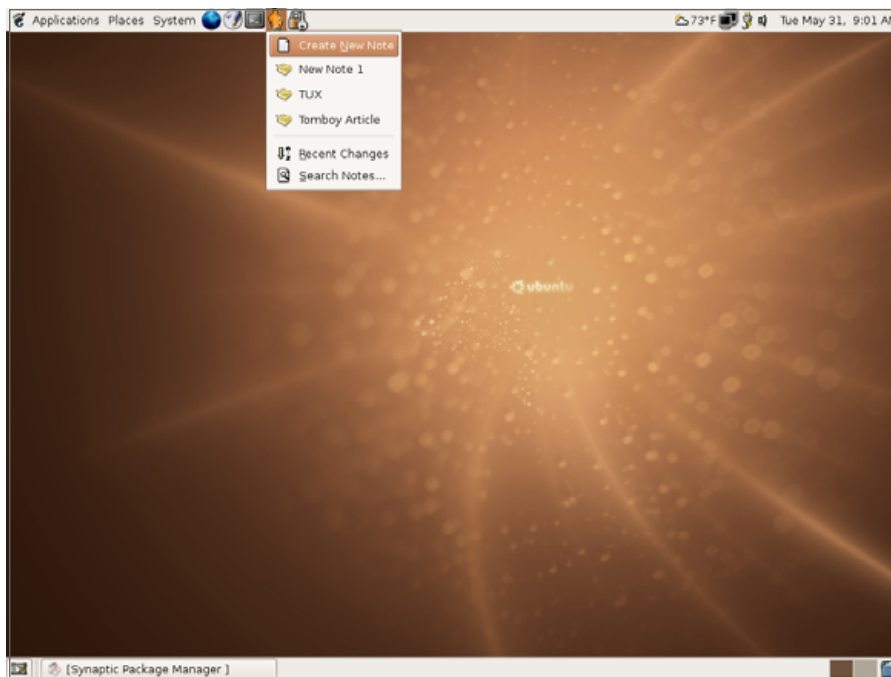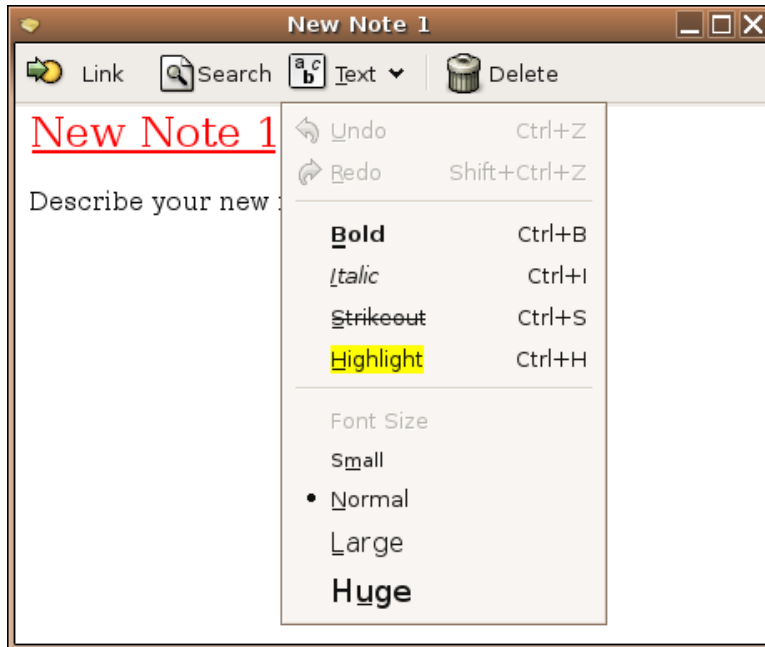
Figure 3. The Tomboy Formatting Menu

Figure 4. The Tomboy Search Tool

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matter of fact, it changes the text in each of your notes to reflect the changes you made in the original.

Have you ever written that key phone number or address on a sticky note and not been able to find it later? That won't happen with Tomboy. Click the Search Notes option, and Tomboy opens a window (Figure 4) where you can search through every note on your computer. Do you need to find that certain note? It is a quick search away. Tomboy also helps keep you from losing any information by automatically saving each note as you type it.

Tomboy is a GNOME application. Although I am sure some longtime Linux users out there could make it work with KDE, I have not been successful.

Another piece of software called Mono also is required for Tomboy to install and run successfully. Mono is an open-source implementation o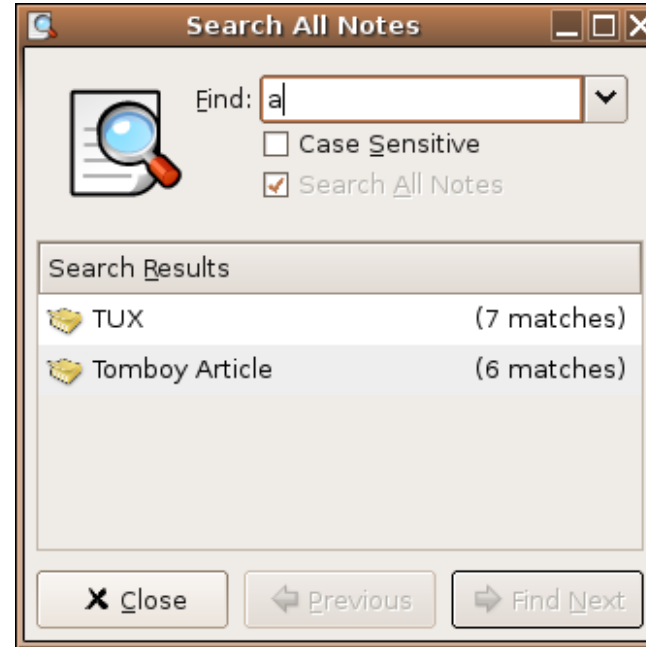f .NET, sponsored by Novell. This is a dependency and must be installed prior to installing Tomboy. Many package managers such as Synaptic will identify and take care of these dependencies for you.

So, what can you use Tomboy for? Whatever you want. Just like those little notepads, the uses are limited only by your imagination. You could use it to keep track of personal information, such as contacts or to-do lists. My wife uses it to capture random thoughts and ideas. As an aspiring author, I use it to keep track of the various story elements such as locations, characters, events and time lines. It is so easy to use, I am sure you will find uses I have never even thought of.

There is still a pad of yellow sticky notes next to my computer, but I almost never touch them. It is just as convenient to use Tomboy. And, now my monitor does not look like a mutant daisy or sunflower any more!∎

Getting Started with OpenOffice.org Calc

Never used a spreadsheet before? Here's how to get started by using OpenOffice.org Calc.

KEVIN BRANDES

Many office environments make extensive use of spreadsheets. The reasons why are no mystery, as spreadsheets allow you to collect large amounts of data and, more important, allow you to try out a series of hypothetical situations to see their impact in your specific situation.

If you've been a computer user for some time, it is likely that you have used at least one type of spreadsheet application or another. For those of you that have used other spreadsheet applications in the past and simply want to become acquainted with OpenOffice.org's Calc application, you'll probably want to skip to section two, or if you're more adventurous, simply open up OpenOffice.org and start doing what you need to do.

OpenOffice.org Calc is quite similar to many of the major office spreadsheet applications. Feel free to scan the article to figure out what you need to know if you get stuck, but in my experience, the best way to learn if you are switching to OpenOffice.org Calc from another office suite spreadsheet is simply to start playing. For everyone else, I'm going to explain the general elements of a spreadsheet so that we can all start with some common ground. In my next article, we'll get into more depth on how to use OpenOffice.org Calc.

WHAT IS A SPREADSHEET ANYWAY?

A spreadsheet is nothing more than a table. We call single spaces used to store information cells. Rows and columns of these cells make up a spreadsheet. Take a look at Figure 1.

I'm just going to say this now. There are lots and lots of buttons. Don't let this overwhelm you. These are largely there to save you time, and they will in the long run. Using a spreadsheet application is extremely easy. I'm going to explain more than enough to get you started, and once you're comfortable with that, you'll be able to forge your own path, or read the next article and go from there.

As you can see in Figure 1, the rows are labeled with numbers, and the
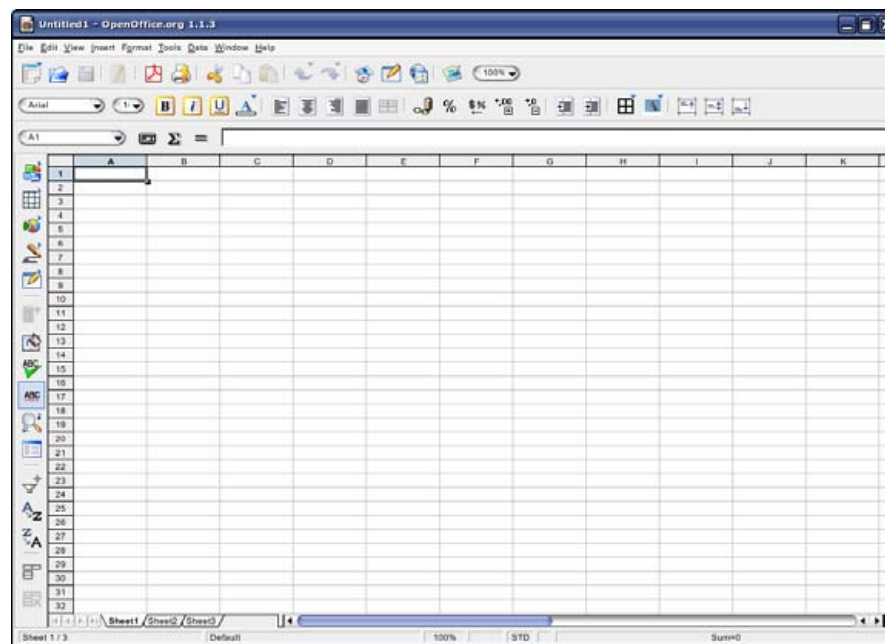

Figure 1. OpenOffice.org Calc's Main Screen

columns are labeled with letters. So, to reference a single cell, you'd give its coordinates by which column it resides in, and then which row. That means that the top-left cell would be called cell A1. A cell three columns to the right and four rows down would be called cell C4. I know this seems strange and useless at this point, but don't worry. It's important to be able to refer to cells with a coordinate system for formulas, which will be covered in the next article. Also, I refer to cells by their coordinates because it's much less confusing than trying to explain, "The cell four up from where you entered the last data."

In its simplest form, a spreadsheet can keep track of your data. The tabular format allows for keeping track of financial, scientific and many other forms of numerical data. We create one of these spreadsheets in this article. Later, when you actually start utilizing the power of spreadsheets, the sheet can perform many complex calculations, and it either will take care of the calculations for you or allow you to perform complex hypothetical calculations, simply by entering a new number where the real value used to be. So, let's get started.

GETTING STARTED WITH OPENOFFICE.ORG'S CALC APPLICATION

The first thing to do, in any case, is to open the application. On KDE, this is usually located under a heading called Office in the K menu. This is where it's located on my SUSE Linux 9.2 system. You may have to browse your own menu to find the selection to start OpenOffice.org Calc if you are using another Linux distribution or if you are using another desktop, such as GNOME.

You also could navigate to Office Suite directly under Office. The Office Suite icon allows you to access all the parts of OpenOffice.org and start with a specific layout and kind of document. We simply want to start with a blank spreadsheet in this case, so go ahead and click on OpenOffice.org Calc instead of the Office Suite icon if it exists on your system.
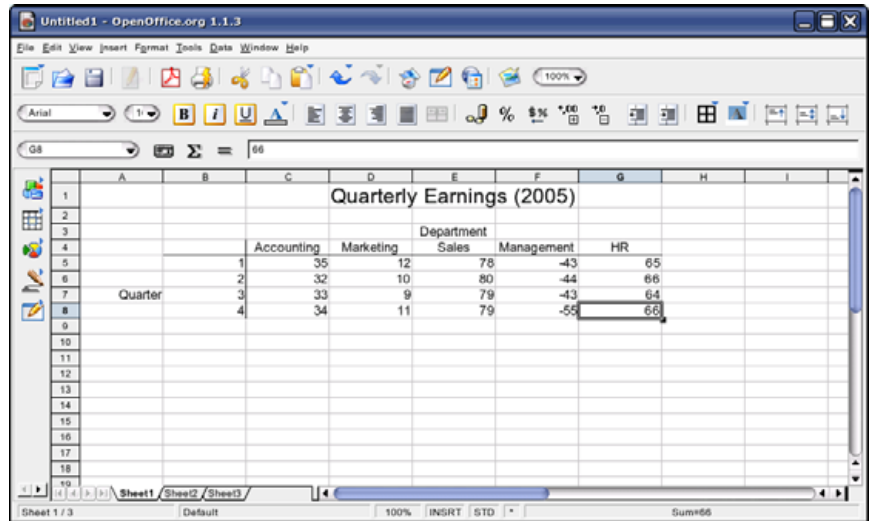

Figure 2. Starting OpenOffice.org

Figure 3. The Finished Product

You'll be greeted with an empty spreadsheet that looks like Figure 1.

The first step we take is to begin entering data. To navigate to a cell, you can use the mouse to click on the desired cell, or if your hands are off the mouse and you need to move around, it's faster to use the arrow keys on the keyboard. Let's go ahead and create a table of data so you can get some practice entering information. Feel free to start your own spreadsheet and follow along.

We're going to create a quarterly earnings table like the one shown in Figure 3.

Of course, the data isn't the most accurate in the world, but it'll get you used to entering data and formatting the cells to make the data look nice and easier to read.

Start with a blank spreadsheet. The first thing that we're going to do is create headings (labels) to keep the data organized. Start with the title. Click the cell D1 or use the keyboard to navigate to cell D1, type the title "Quarterly Earnings (2005)" and press Enter. Use your mouse or the arrow keys to navigate to the other cells until your spreadsheet looks like Figure 4.

If you put some information in the wrong place, or simply decide to move it, you can move it around by selecting (clicking on, or using the arrow keys to move the cursor to) the cell, and then selecting Edit→Cut, selecting the destination cell and then selecting Edit→Paste, like in many other office applications.
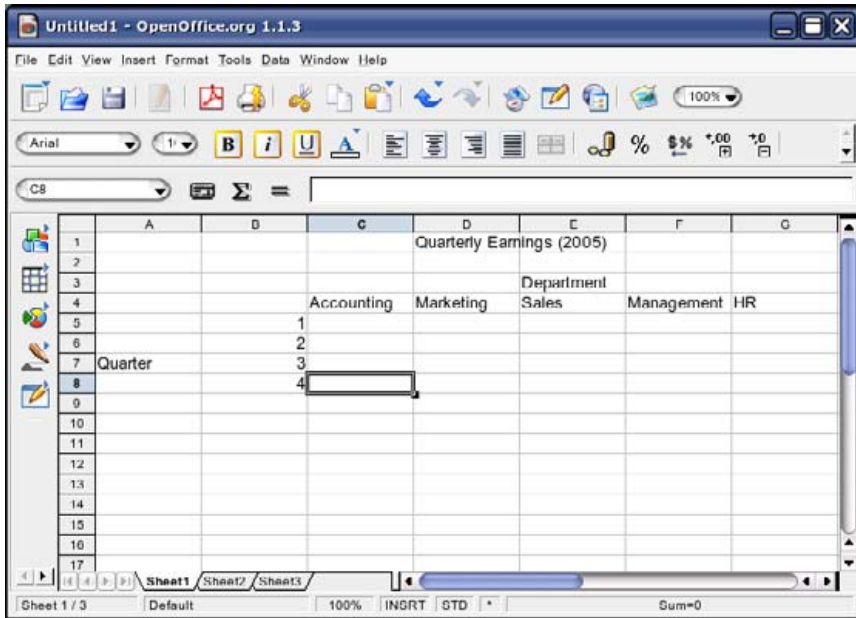
Figure 4. The First Steps

Figure 5. Starting to Look Presentable

Figure 6. Save your work often!

Now we're going to insert the numbers. Feel free to choose your own data, or use the numbers you see in Figure 5. You can type a number and then press Enter to move down to the next cell in a column. This makes data entry go more quickly. Try to avoid using the mouse. You can improve your overall speed by using the arrow keys instead, at least once you become comfortable with the application. Your spreadsheet should now look something like Figure 5.

At this point, you've put a fair amount of work into your spreadsheet. You wouldn't want to lose that work under any circumstances. This would be a great time to save. Click on the disk icon in the toolbar, and you'll see a window that allows you to choose a filename and location for your file. In Linux, spaces and most symbols are perfectly acceptable in a filename. Give your spreadsheet a meaningful name. I chose Quarterly Earnings (2005) as is shown in Figure 6. The default extension of an OpenOffice.org Calc spreadsheet at the time of this writing is *.sxc. An extension is simply the last portion of a filename that is one way your computer can figure out how to handle the file. This extension will be changing in OpenOffice.org 2.0, but
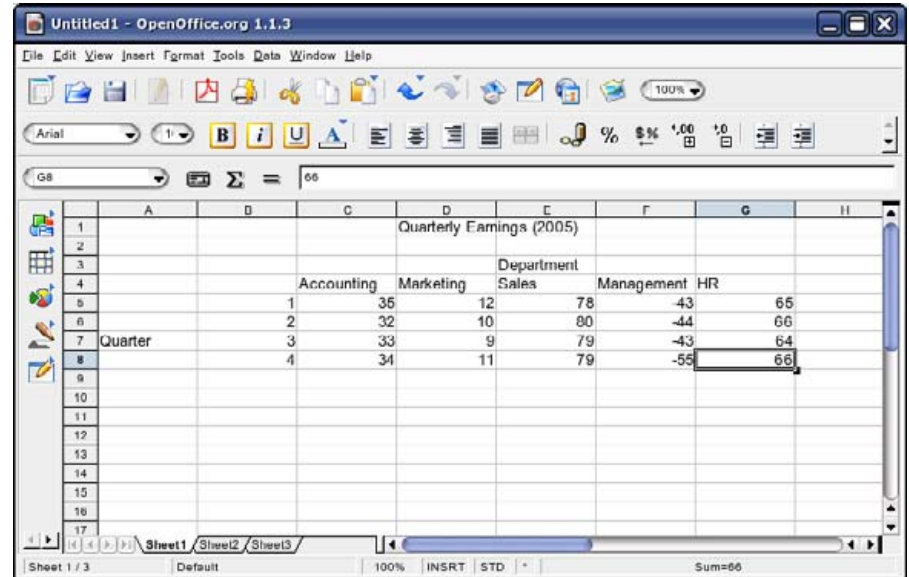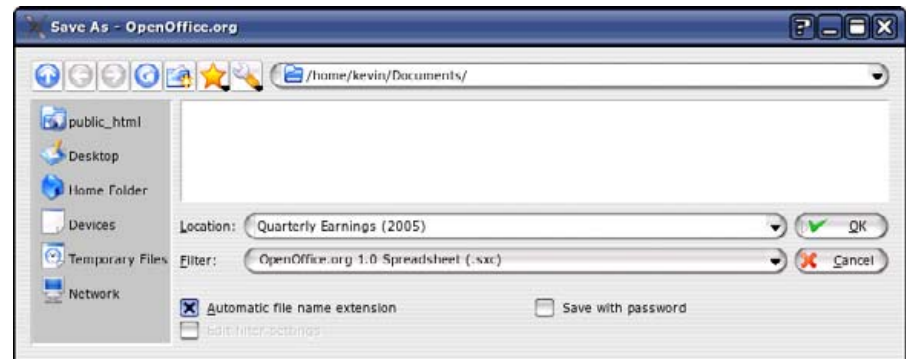
don't worry, the old format still will be supported in newer versions. Select Ok, and your work is saved to disk.

We need to add a little bit of formatting to make the sheet easier on the eyes. First, we should make the heading larger. I'd like to point out something here. The text in cell D1 is too large to fit in that cell, so it's overflow-

ing into cell E1. Select cell D1. If you look at the text entry bar among the toolbars, you'll notice that when you have cell D1 selected, you'll see all of the text, and in cell E1, you'll see nothing. This means that all of the text is actually in cell D1, and OpenOffice.org Calc decided it would be better to show the text on the next cell, rather than have it end at the cell border. This may seem confusing at first, but it really does make more sense once you've gotten used to things.

Now we need to touch up the title. You should have already selected cell D1. Now drop down the font size menu by clicking on the arrow where the number appears (the font size selector should be to the right of the font name selector). Select something larger. I chose size 16.

Now we need to align the data labels. Select the rectangular region of cells starting with cell C3 and extend the selection to cell G4. You can do this with the mouse, but it is probably easier to do it with the keyboard. Select cell C3, and then hold down the Shift key while using the arrow keys to move to cell G4. Once you have that range of cells selected, you can change the alignment (among other things). Change the alignment to center the numbers by clicking the center button in the toolbar. The center tool button is the one where you see
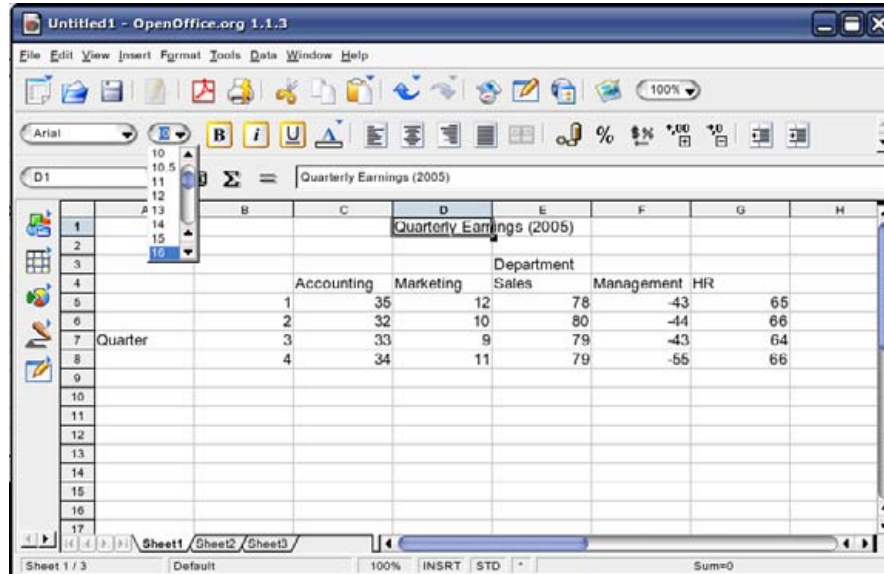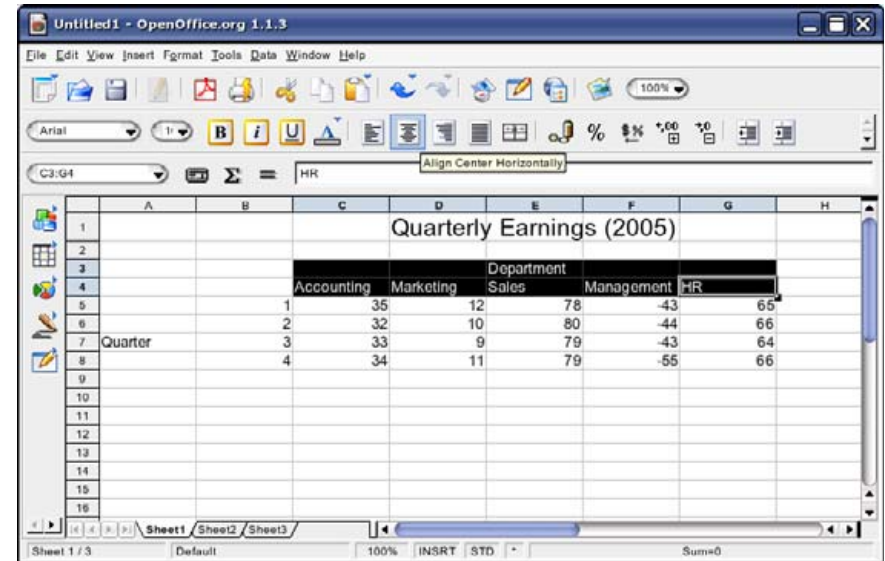

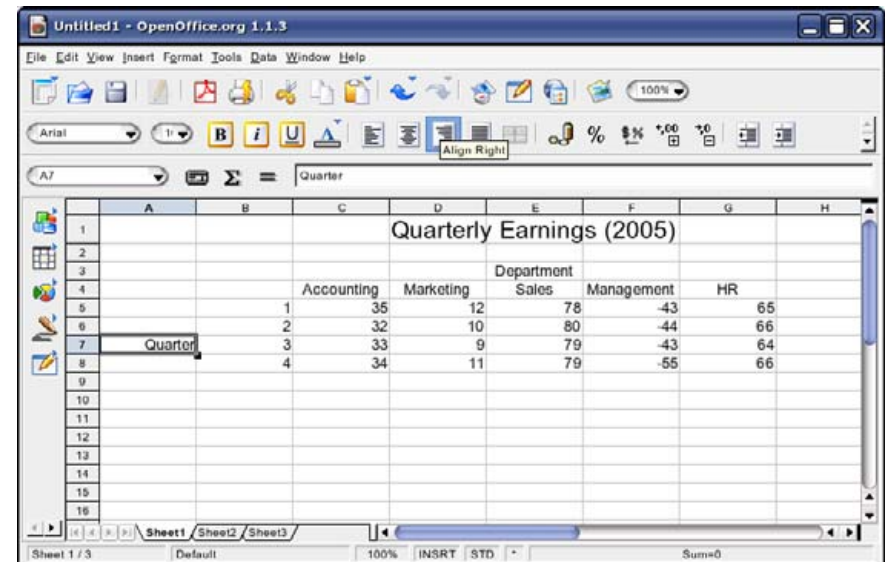Figure 8. Centering the Data Labels

Figure 7. Choosing Font Size

Figure 9. It's coming together!

different lengths of horizontal lines, all centered in the button.

Now you should right-align the contents of cell A7. Select cell A7, and click the right-align button (it is immediately to the right of the center-align button). Your sheet should now look like Figure 9.

The final touch for this spreadsheet is to add some lines on the table so that the data stands out and the values are easy to find. Select cells B4 to G4 (select the cell B4, hold down the Shift key and then use the arrow keys to navigate to G4). Next, select Format from the main menu, and then select Cells from that menu, as shown in Figure 10.
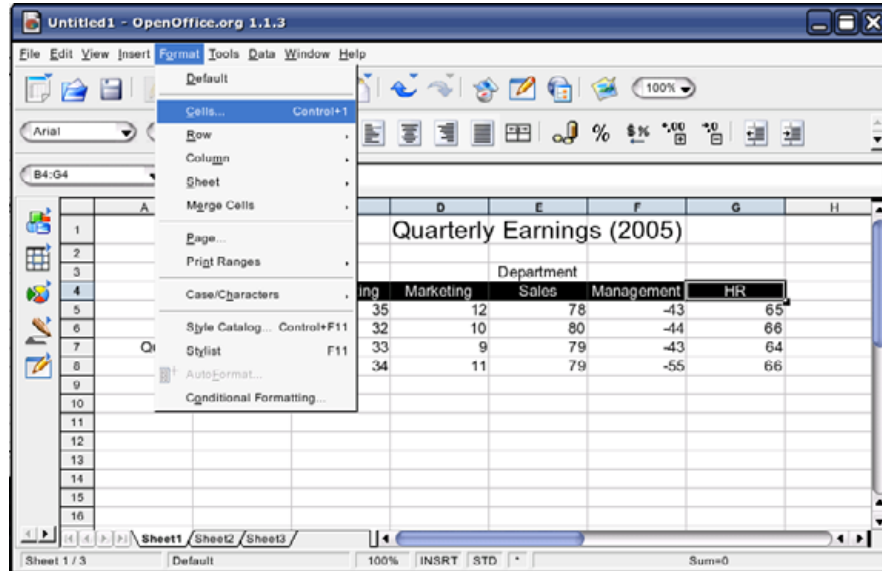
This shows a new window with many options. Click on the Borders tab at the top of the window, and your screen will match Figure 11.

In the section toward the left labeled User Defined, you can add your own borders however you like to the cells of the sheet. In our case, we want a single horizontal line at the bottom of the cells we've selected, so we click on the white area toward the bottom of the User Defined area. This makes a line appear where you've clicked. If the line doesn't match Figure 12, simply click again in the same place to make the line go away. Once you have a single horizontal line at the bottom of the User Defined area, click Ok.

Figure 10. Adding Our Horizontal Line

Once the dialog disappears, you'll need to select a different cell to see the results of your handiwork.

Now, we just need to add the vertical line. Select cells B4 to B8 using your mouse or the keyboard technique we described in previous operations (click on the first cell, hold down the Shift key and navigate to the last cell). Select Format→Cells from the main menu again. This time, the Borders tab already should be highlighted. Click on the right side of the User Defined area, and then click Ok. Once you select another cell on the sheet, you should see the finished product. Save your finished work, and you've created a simple spreadsheet.

At this point, you really haven't even begun to see the power of what you can do with spreadsheets. In the next issue of *TUX*, I'll cover some of the more powerful functions of OpenOffice.org Calc.■
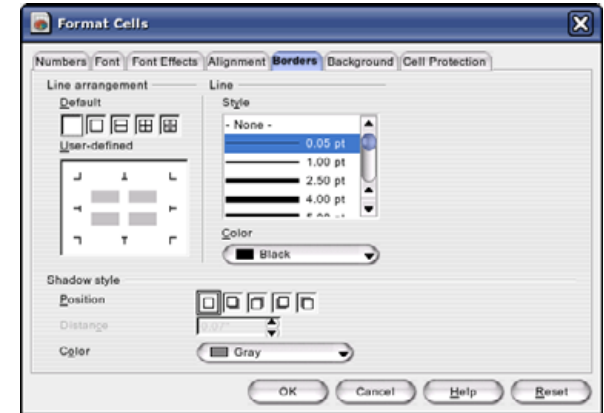

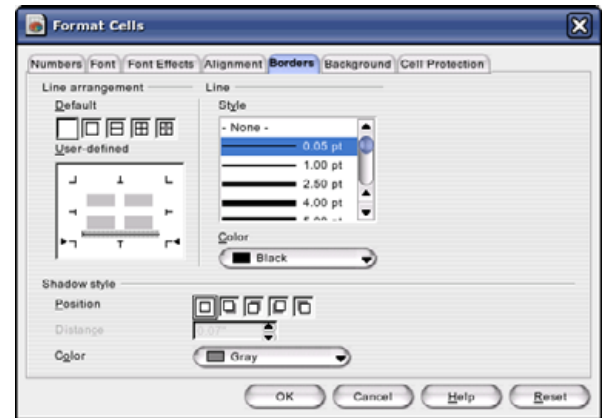Figure 11. The Borders Dialog

Figure 12. Adding Our Line

Kevin Brandes is 21 years old and is proud to help others join the Open Source movement. He lives in rural Oregon with his partner of three years, where he studies Software Engineering.

Introduction to Linux Security, Part I

Phil Barnett explains why security is important and gives some tips as a prelude to next month's how-to guide for the popular firewall program Guarddog.

PHIL BARNETT

This is a good-news article. The good news is that security in Linux is great and can be made even better by doing a little work and following a few simple rules. We need to be clear that no computer system is ever totally secure. Before we go into the rules or some of the easy things you can do to make Linux even more secure, let's go over some of the things that make Linux as good as it is today.

In the grand scheme of computer operating systems, Linux is an old-timer. Linux security roots are in UNIX, which has been running computer systems for more than 30 years. One of the basic design rules of UNIX was to write small utilities and modules that did only one thing and did that thing very, very well—so well that nobody would ever be tempted to reintroduce that functionality. What this has led to is an excellent set of tools that have been refined over a decade. This leads to operating system maturity and gives all of us the benefit of years of troubleshooting and bug fixing of the tools that we use every day. Most of these low-level tools are hidden from you by your desktop manager, but they form the foundation of your distribution. Interestingly enough, these tools were added to the Linux kernel several years after each of them existed independently. They are known as the GNU utilities. The GNU-Linux marriage has been past the honeymoon for

nearly a decade now, so we can count on these tools to do exactly what they were designed for and nothing more or less. The GNU toolset is a huge security feature of Linux distributions and an unsung hero of the capabilities we enjoy today.

Another advantage of Linux is that it was designed from the beginning to separate users from the ability to damage the operating system. When you are using a Linux operating system as a regular user, the designers have given you a lot of power and ability to perform tasks, but they have not given you the ability to damage the basic operating system installation. In general, in Linux, when you are logged in and operating as a regular user, you cannot harm the basic installation.

BEST PRACTICES

This leads us to the first rule of running a secure Linux installation. Never run as the root user. Yes, you will need root access to perform occasional chores, and some Linux distributions make this easier than others. Some distributions simply pop-up a dialog window when you attempt to make a change to your system that requires root privileges. You type in the root password, and that takes you to an easy-to-use configuration program for your network card or anything else that is system-related. When you exit this utility, you leave behind your root privileges and continue using the system

with the more limited user privileges.

Regardless, you must get into the habit of logging in as a regular user, and never logging in as root. This practice protects you not only from yourself, but from other malicious parasites who seem to exist these days to cause other people pain. As long as you are logged in as a regular user, it is nearly impossible for a worm, virus, trojan, hijacker, cracker or any malicious piece of software to damage your operating system.

Didn't I tell you it was good news? So, let me repeat that. Run as root only for administration duties. As soon as you are done with your administration duties, get back into regular user mode. If you follow this rule religiously, you will never regret it.

The second practice that will give you a more secure Linux experience is to keep your distribution up to date. This means that you should regularly apply patches that update the software that you have installed on your computer. For most major distributions of Linux, the basic update mechanism is very easy to use. In many cases, it will tell you when you need to run it. I happen to like Fedora Core as my desktop distribution of choice, and I prefer the KDE desktop. If you are running this combination yourself, you will notice a circle over in the lower right of your taskbar that is either a green check mark or red X. If it is green, your

patches are up to date. If it is red, you need to patch up your operating system. If it is red, simply click on it. It will ask for the root password and will prompt you through the update process. I like to do this weekly or whenever I have heard that a major vulnerability has been patched.

The third practice that will help your Linux installation be more secure is to run the firewall that is included in all modern Linux distributions. A firewall is a defense mechanism built in to Linux that keeps uninvited Internet or network traffic from getting inside.

Why does this matter you ask? I mean, it's merely a home computer. Who would want to break in to your home computer? The crackers who do try to break in don't know if your computer is an important one until they get inside. Their typical attack is to try a single vulnerability on every computer they can find. These attacks do not discriminate as to how important the target is. They attack everything in sight.

ATTACK CANDIDATES

If your computer is hooked up to the Internet via a Cable/DSL router (NOT a Cable/DSL modem—there is an important difference), it is likely that your system is already very secure. The most important factor in this case is that you configure your Cable/DSL router properly. Unfortunately, older routers were designed with poor default configurations and opened up systems to attack. So if you have an older router and have not recon-figured it properly, it will not protect you from attacks. Fortunately, most new routers on the mar-ket today are configured to be secure by default. Linksys, NetGear and many other companies make decent routers that are generally secure by default. Watch out, however, if you choose a router that

includes wireless capabilities. A router that supports wireless clients makes computing very convenient, but you may be opening up yourself to attack once again unless you configure your router properly. That is a topic for another article, however.

If your computer is hooked up directly to the Internet through a Cable/DSL modem or a regular phone modem, you can assume your machine is under attack continually. This is where a firewall is important and why it should be turned on by default. By studying the logs that my firewall creates, I have found that my firewall typically stops more than 1,000 attacks a day. This is a residential DSL connection. My firewall is the only defense standing between me and the innumerable attackers on the Internet. I wouldn't be without it.

The default firewall policy on most Linux distri-butions is to let all data requests out and let the reply to those data requests back in, but to deny any data packets that were not answers to our requests. What that means is that we can use the computer to access the Internet, but anyone who is attacking our machine from the Internet gets cut off. That's good, right?

It's good, but it's not as good as it could be. It would be better if we could tell the firewall what we expect to be doing so that it can allow only those things to happen on our computer.

Let's talk about three scenarios so you can understand where we are going:

1. There is no firewall. All data packets are allowed in and out.

2. There is a firewall that is blocking uninvited data but allows us to do anything on our computer.

3. The firewall is controlling everything that goes in and out.

Scenario 3 is better known as a default block all policy. If we don't teach the firewall some rules under this scenario, we might as well unplug the cable to the Internet. Unfortunately, the rules to implement such a firewall are tedious and complex. More good news—there are tools to make this easy to accomplish!

I use Guarddog for KDE to configure my firewall. Guarddog eliminates the difficult learning required to implement this type of firewall by making some assumptions and calling things what they are in plain English. We'll continue next month with an installation of Guarddog and a thorough explana-tion of how to use it to configure your own firewall for even more security than the default installation.

In the meantime, if you find this topic inter-esting, you might want to read the Linux Security How-To that has been growing for many years (http://www.linuxsecurity.com/docs/LDP/Security-HOWTO). It is a collaborative effort of many security experts that want you to have a secure computer. There is a lot of good information here for new Linux users, and if it gets too steep, don't worry about it. Those same people have been working on making Linux more secure before you ever installed it.

See you next month.■

Phil Barnett is a Senior Programmer-Analyst at Walt Disney World where he has spent the last ten years working with cor-porate software and computer security projects. Six years ago, he helped incorporate the popular Florida Linux User Group, Linux Enthusiasts and Professionals, which he considers his greatest Linux accomplishment (http://www.leap-cf.org). Besides Linux and computers in general, his other hobbies include woodworking and amateur radio communications.

Scrapbooks and Albums

How to use GIMP for popular image tasks like scrapbooking.

MICHAEL J. HAMMEL

TUX is all about using Linux now—not by seasoned, professional computer nerds but by everyday users with everyday tasks. *TUX* is for people who use Linux like they use their DVD players. They don't want to ask why it works. They want to know how to make it play.

So this month, I dug around a little to see what sort of questions and comments were being made about GIMP on various discussion forums about making GIMP play. There are actually quite a few places people talk about GIMP, and not all of those places are specific to GIMP users.

One interesting question came from a husband trying to get his wife to use GIMP for scrapbooking. He wanted to know how to use GIMP to solve scrapbooking problems: layout, fonts, backgrounds and so forth. What struck me as odd was how many people responded that GIMP was not easy enough to use for scrapbookers and that he probably should look elsewhere.

Hogwash.

I'm going to show you how GIMP easily can cover any of the issues you have with scrapbooking. The problem won't be how to get GIMP to play—it will be how to get yourself to stop playing!

Requirements for this tutorial: it would help if you already have a little familiarity with the GIMP's Toolbox and the Layers dialog, but it's not required. Digital cameras or scanners help to get images into GIMP, and a recent Linux distribution

such as Red Hat/Fedora, SUSE/Novell or Mandrake with all the bells and whistles installed also will make your life easier. To make this all worth while, you need to have your printer configured as well.

PROBLEM 1: GETTING IMAGES

If you're working with pictures developed the old-fashioned way, you need a scanner. Scanners are supported with the SANE package and the XSANE plugin for GIMP. Both are included in all modern, popular Linux distributions. A scanner connects to your computer in one of three ways: via the parallel port, via a SCSI connector or via a USB connec-

tor. Only very old scanners use the first two. Most modern scanners offer USB connectors.

To use your scanner with GIMP, look in the GIMP Toolbox under the File→Acquire menu. If scanner support is properly configured, you'll find at least two options: one for the generic XSane interface and one for each scanner found connected to your computer. You're unlikely to need the generic option—it's for more advanced use. The other option opens a window that lets you preview what you placed on the scanner, select parts of those images and then scan them.

With scrapbooking, you're going to want to print out images after you have modified them to your tastes in GIMP. You should scan them at a reasonable DPI so that the picture will look
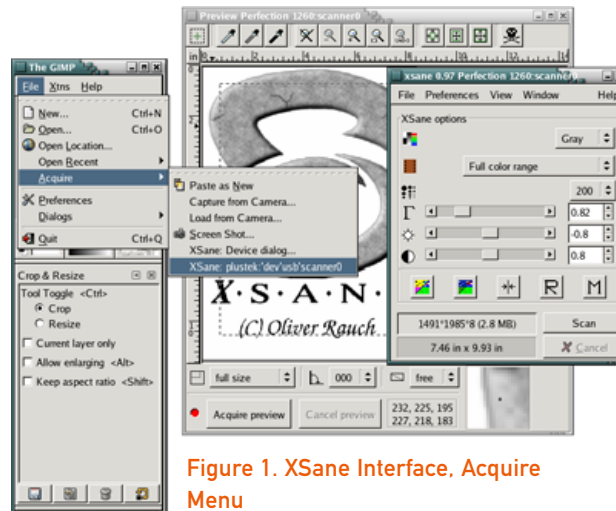

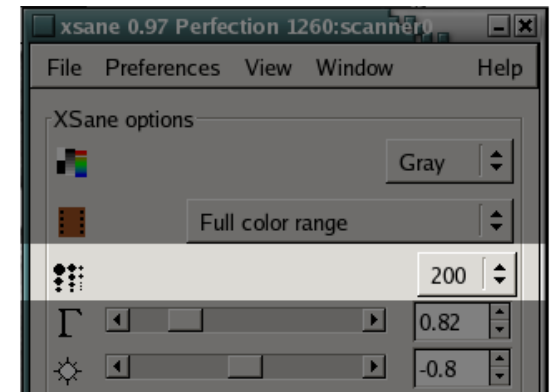**Figure 1. XSane Interface, Acquire Menu**

Figure 2. DPI Setting

good. DPI means dots per inch. Without getting too technical, you simply need to remember to scan with the DPI setting of at least 150. A DPI setting of 200 or 300 would be even better, but if your computer has limited memory (something less than 500MB), 150 will do. Once scanned, the image will appear in a GIMP canvas window.

Scanners are cheap these days, primarily because a better way has come along: digital cameras. GIMP also supports digital cameras via a plugin from the Gtkam Project. In order to use your camera, make sure you have gphoto2, libexif and libusb installed. Again, these are likely to be installed already or easily installed with your distribution's software installation tools.
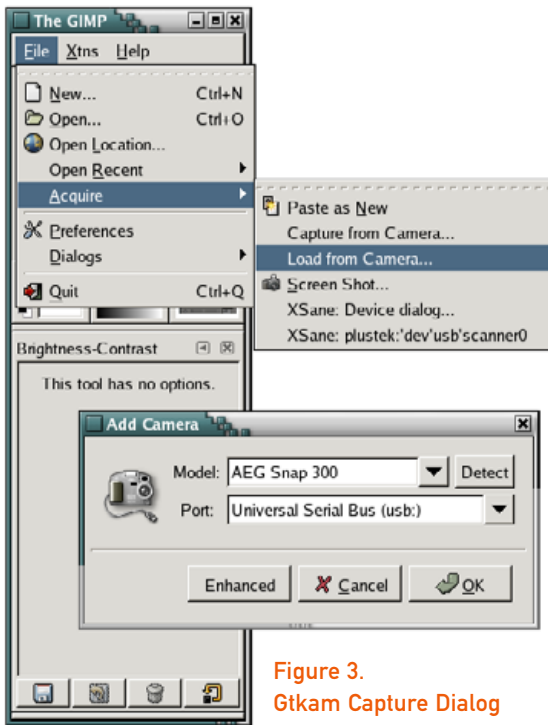

Figure 3.
Gtkam Capture Dialog

PROBLEM 1: ADDING BACKGROUNDS

After retrieving your images, you're ready to add some personal touches. Like scrapbooking, GIMP works by layering elements. The images just scanned will be copied into a new canvas window and positioned over a background.

I'll start by by opening a new image window (File→New from the Toolbox) and choosing a common page size, in this case the US Letter template. Then, under Advanced options, I've set the X and Y resolutions to 150 and made sure the window uses the current background color (which I've not changed from the default of white).
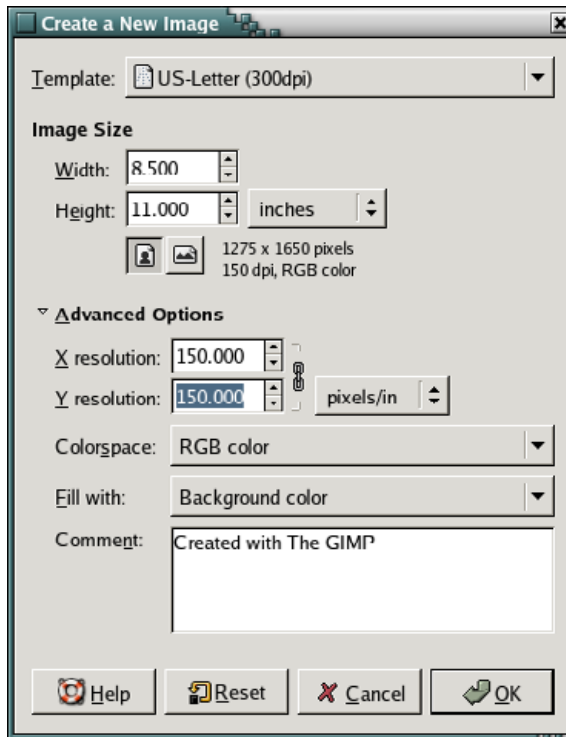

Figure 4. New Image Dialog

Clicking OK opens the new, white canvas window. The scrapbook page is ready to be filled.
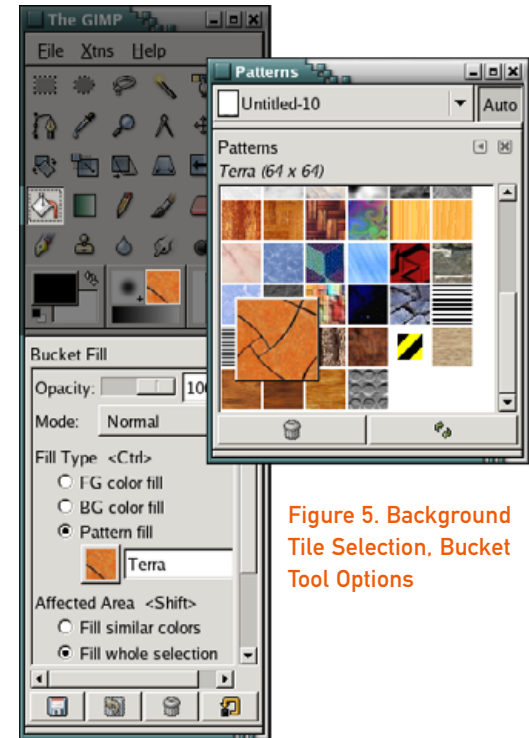

Figure 5. Background Tile Selection, Bucket Tool Options

Now I can add a background. GIMP comes with a wide selection of backgrounds (and creating new backgrounds requires only that you save any image in the PAT file format—see File→Save As). For simplicity's sake, I'll choose one of the stock backgrounds, Terra, by clicking on the Pattern icon in the Toolbox and choosing the Terra background tile. I click on the Bucket Tool in the Toolbox to make it the active tool, set this tool to use the selected pattern and then click in the new canvas I just opened. The pattern fills the page—Problem 1 easily solved!

PROBLEM 2: FAKING MATS

Next up is a little fakery—I'm going to put borders around the image that make it look like it lies beneath a cardboard mat.

First, I drag the scanned or digital camera image into the background. In the Layers window (with my scanned image displayed—check the menu button at the top of the Layers window), I click in the image icon, holding down the mouse button and drag the mouse into the window I just filled with the Terra background. This creates a new layer. See the Layers window? It shows two layers now. The scanned image will be the active layer (it is highlighted in blue in the Layers window). If it isn't active, I simply can click on the layer name to make it active.

Now I'll select the entire photo (Layer→Transparency→Alpha to Selection). I click on the Rectangular Selection tool in the Toolbox and set the Subtract Mode. Then I drag another selection inside the first. The Subtract mode means "cut out this new selection from the old", which leaves an unfilled border. You have to hold the Ctrl key down when you start to drag, but let go of it right after that and before you finish dragging, otherwise you can't draw a selection inside an existing selection.

I add a new layer (Layer→New) and click on it in the Layers window to make it active. Clicking on the foreground color lets me choose another color for the border. I want a brownish color, so I type B3661A in the HTML field. Granted, this is the stuff of guru magic, but it's not that hard once you get used to it. The number contains three color values. Each color value can be anything from 00–FF (this is a hexadecimal number). Here is how you count in hexadecimal: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F. So you mix colors by selecting a combination of hexadecimal numbers, in this case, the red, green and blue color combination is B3, 66 and 1A, respectively. The higher the number, the brighter that color will be in the mix. If you want black, then use the number 000000. If you want white, use FFFFFF, because that will set all the colors to the very brightest, which makes white.

You can select colors in many ways in this window—play with it a while to get the feel of it—but if you know the color by its RGB values, you can type them in where appropriate. I click OK to close the window and then drag the foreground color into my selection to fill in the border. Pressing Ctrl-Shift-A gets rid of the selection.

To simulate the edges of the cardboard mat, I first click on the Fuzzy Select tool in the Toolbox. Then I click inside the border I just made. A new selection shows up that matches the inside edge of the border. Reset the foreground/background colors by clicking on the little boxes in the lower-left corner of the Toolbox. A new layer is added
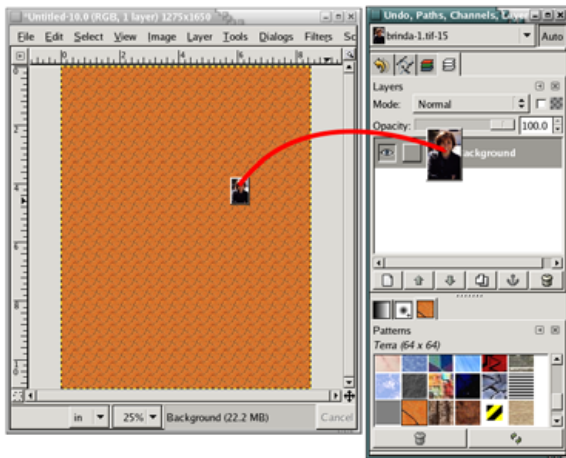

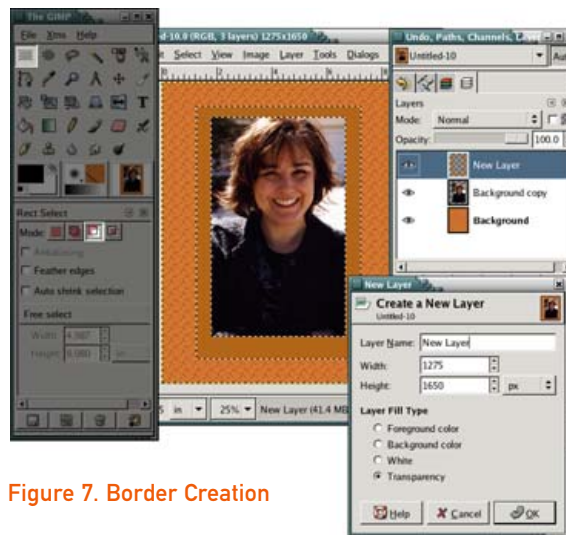Figure 6. Layers Dialog, Dragging One Image into Another

Figure 7. Border Creation

Figure 8. Fuzzy Select Tool, Stroke Window, Border Edges, Layer Offset

(Layer→New), and the selection is stroked (Edit→Stroke) using the default settings in the window that opens. This layer is duplicated (Layer→Duplicate), and the colors are inverted (Layer→Colors→Invert, which gets you a white border). Offset this new layer by -1/-1 (Layer→Transform→Offset).

Click on the Eraser tool, choose the Circle Fuzzy (76) brush and erase the top and left side of the white border. Set the white border layer Blend Mode to Grain Merge.

This one was a little more complex, but not much. Erasing the white border will probably be your toughest task because it's a fairly manual process. But once you master this, Problem 2 is solved!

PROBLEM 3: ADDING SPEECH BUBBLES

Most scrapbooking adds text to an image in some way. A quick search with Google shows that a common layout is to use little boxes below or to the side of an image. We can go one better, very

Figure 9. Elliptical Selection, Free Select and Options Modes, Filled Bubble

easily—a speech bubble.

A new layer is added. In this layer, I draw a rounded selection using the Elliptical Selection Tool. I then select the Free Select tool from the Toolbox and set its mode to Add. I click and drag a triangle shape starting below the bubble, up into the bubble, to the right and back to near the starting point, then release the mouse button. This adds the triangle shape to the round selection. Dragging the background color (white) into the bubble fills it. Pressing Ctrl-Alt-A at the same time removes the selection so I can see the bubble.
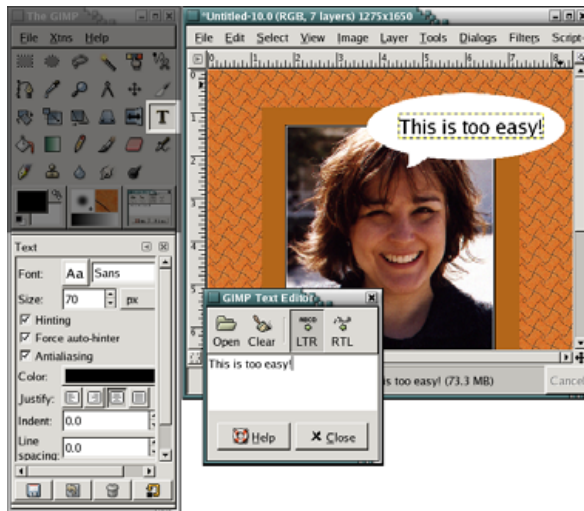

Figure 10. Text Tool, Options and Editor, Filled Bubble with Text

Text is added to this bubble using the Text tool. I used the Sans font and 70 pixels size. Clicking in the canvas window opens an editor that allows adding the text. The letters are drawn in the canvas at the same time you type them. The text won't be placed in the bubble automatically. In

fact, it might not even all fit on the screen initially. I'll position the text in a moment. If you find the text is too big after you move it into place, click on the text again with the Text tool active to change the size.

PROBLEM 4: POSITIONING ELEMENTS

The Move Tool is used to drag all the elements around the scrapbook page. We made the mat fit directly over the image so we can move all those elements at once. In the Layers dialog, click on the anchor icon (Figure 11) for each layer we want to move as a single piece. Make sure the
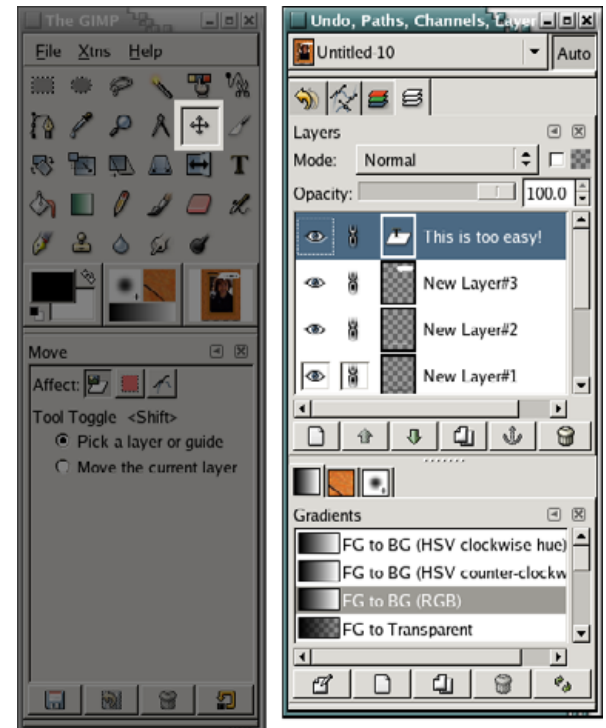

Figure 11. Move Tool, Layer Anchors

Move tool is active in the Toolbox, then hold down the Shift key and click and drag inside the canvas window. If your computer has limited memory or a really slow processor, moving big layers like this might be a little slow. But hey, that would be true with other programs on other operating systems trying to do this same project, so don't blame GIMP for that!

Be sure to have one of the anchored layers active in the Layers window (it will be highlighted with blue) before you try to move the bunch. Moving an individual layer is done the same way—with the layer active—but without any anchors turned on. To turn off an anchor, simply click on it.

Positioning elements is a personal touch that is a major part of the whole scrapbooking hobby. There are tools in GIMP for positioning elements exactly (see Layer→Align Visible Layers) and external plugins for doing it more interactively (see the Graphics Muse Tools GFXLayers plugin, for example) but these probably aren't necessary for projects like scrapbooking.

PROBLEM 5: PRINTING

Your work of art is ready for the scrapbook. Now you need to print it. All Linux distributions provide tools for configuring a printer. As long as your printer is configured, all you need is the GIMP-Print plugin. If you have the File→Print menu option, you should be set to print.

Printing for scrapbook projects is a talent unto itself because the real personal touch comes from the selection of papers. GIMP-Print can handle pretty much anything your printer can, so you need do only a little research into the types of

Figure 12. Print Dialog

papers your printer can handle. This means more than just different page sizes; it also means printing on canvas, jerseys, bumper stickers or any other odd type of paper. The limit will be in your printer—not with GIMP!

This project is just an example of how GIMP can be used for scrapbooking. Experienced users will find that you don't often print the whole project on a single sheet of paper, but rather print elements one at a time on different types of papers. Though you might print the elements separately, the basic process remains the same.■
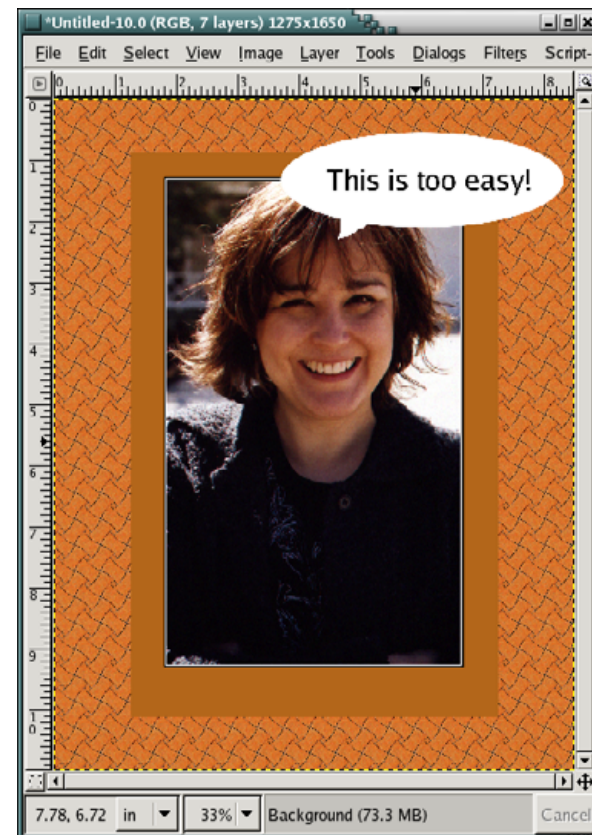

Figure 13. Final Image

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Windows-to-Linux Migration with Qt

Combine the power of Qt with the ability to write one application that runs on Windows, Linux and Macintosh, and you get a bright future for Linux on the desktop.

JASMIN BLANCHETTE

Editor's Note

This article was written by an employee of Trolltech, the company that sells and offers free versions of Qt. We do not usually print articles written by vendors, as it poses a potential conflict of interest. In this case, we gave Trolltech specific guidelines on how to approach this topic in order to prevent the article from being an advertisement. Trolltech came through for us. Yes, the article promotes Qt, and Qt is worthy of being promoted. But our purpose in commissioning the article is to illustrate that Qt enables people to write a single application for multiple platforms (Windows, Linux, Macintosh and more). This makes it possible to create applications with the widest audience possible. It also means that Linux can reap the benefits if someone uses Qt to write an application for Windows or Macintosh, because it is a fairly simple process to recompile the application to run on Linux.

In fairness, other cross-platform solutions are available, such as wxWidgets. In addition, you can always write applications in Java that are platform-agnostic. But we know of no other multiplatform solution that is as comprehensive and self-contained as Qt, so we find it a worthy exercise to examine how people have used Qt and look at its advantages, because this information should be very encouraging to Linux desktop users.

Qt (pronounced "cu-tee" or "cute") is the C++ application development framework that forms the basis of KDE, the K Desktop Environment, and it is used by Linux applications such as Scribus and Skype. It is developed by Trolltech, a Norway-based software company whose product line is centered around Qt. Although Qt mainly focuses on GUI (graphical user interface) functionality, it also provides excellent support for various programming domains, such as internationalization, networking, multi-threading, SQL and XML.

From day one, Qt was a fully object-oriented cross-platform toolkit, with support for both Linux/UNIX and Windows. In 2000, Trolltech released Qt/Embedded, which was designed to run on embedded Linux devices and provided its own window system as a lightweight alternative to X11. And with the release of Qt 3.0 in 2001, support was added for Mac OS X.

WHO CAN USE QT?
Trolltech's business model, based on the idea of dual-licensing, works as follows:

■ Developers who want to give away their source code to the Open Source community can use the Open Source (GPL) edition.

■ Customers who make money on their soft-

ware or use it in a commercial context must purchase a commercial Qt license.

The Open Source edition is first and foremost a gift to the Open Source community. Many developers at Trolltech have their roots in that community, and most of them use open-source and free software every day to do their work.

From a Linux perspective, it means that a high-quality professional tool, developed by a dedicated team of paid developers and used by thousands of paying customers, is available for open-source software development. What's maybe less obvious is that Qt's single source approach to cross-platform development and its dual-licensing model accelerate the migration of Qt-based commercial Windows applications to Linux.

A BETTER MFC THAN MFC
Although Qt is cross-platform, many companies use it for single-platform development. These companies use Qt because they find the Qt API (application program interface) superior to that of the Windows-specific toolkits. They also find that Qt insulates them from differences in the Windows APIs. For example, with Qt, the same executable works on Windows 95 to XP; Qt performs a check at runtime and uses the most

advanced capabilities available. Microsoft's library of tools for the Windows API is called Microsoft Foundation Classes (MFC). With MFC, this is not possible without creating two executables.

Rowley Associates based their CrossStudio IDE on Qt/Windows. They have now ported their application to Linux at the request of some of their customers. The port was done by a developer who had no previous Linux/UNIX experience and took only a couple of days, showing how easy it is to transform a well-written Windows Qt application into a native Linux application.

TOOLKIT CONFUSION ON WINDOWS
Microsoft has practically given up MFC and is preparing to replace its successor, Windows Forms, with the Avalon framework. The uncertainty surrounding these three APIs has alienated many Windows developers, who are now looking at Qt as a more stable alternative.

JMP, a division of SAS, who previously used MFC in statistical data visualization software, found themselves in that situation. JMP software is widely used in industrial companies, notably Dow Chemical, Honeywell International and Aventis Pasteur.

Richard C. Potter, Senior Software Manager at JMP, summarizes the search for an alternative to MFC as follows: "We needed to find a class library that would be compatible with our existing architecture. We briefly considered using GTK+, but we quickly realized that it would not be acceptable. Qt was a better fit with the existing architecture of our product. Since Qt classes match closely with those in MFC, converting our existing MFC-based source code into Qt-based source code was straightforward."

Another example is Firstlogic, which provides

customer relationship management (CRM) solutions to more than 6,000 businesses around the world. When they set out to develop IQ8, their next-generation data quality solution, they decided to move away from MFC to Qt because they needed a more modern and flexible toolkit. Now, IQ8 is available for Linux and commercial UNIX systems.

HOW MAC OS X IS HELPING LINUX
Although the uncertainty surrounding Windows Forms and Avalon is an important factor playing in Linux's favor, another factor is that software companies increasingly need to target both Windows and Mac OS X. They choose Qt because of its cross-platform capabilities.

BMPi, the interactive version of "Birds of the Western Palearctic", developed by Skylark Associates, is such an application. Other examples include PerfectTablePlan by Oryx Digital and Mindawn by theKompany.com. As Linux becomes more popular as a desktop platform, the providers of these cross-platform applications are likely to port their software to Linux as well as Mac OS X.

THE OPEN-SOURCE FACTOR
Interestingly enough, many companies consider the existence of an Open Source (GPL) edition of Qt as an advantage over other toolkits.

For them, this means that the product is widely tested by hoards of open-source software users, including KDE users. Mailing lists, on-line forums, books and certain components (for example, the Qwt plotting library) are available on the Internet to both open-source and commercial developers. Finally, when it comes to hiring, there is a large talent pool of open-source developers with Qt skills out there.

About this topic, Rainer Goebel, who is Chief

Software Designer at Brain Innovation, a company that migrated from MFC to Qt, says, "We ended up choosing Qt due to its consistent object-oriented approach combined with its elegant signal-slot mechanism. The knowledge that Qt was used to develop KDE, one of the two major Linux/UNIX desktops, also helped in the decision process."

THE FUTURE
Even though Qt was originally designed as a cross-platform GUI toolkit, there is an increasing number of companies who adopt Qt for single-platform development on Windows, rather than Microsoft's half-baked solutions. With the emergence of Linux on the desktop, these companies will be in a position where they can port their applications to Linux in very little time, which in turn will help user adoption of Linux. It also may be noted in passing that Qt is helping Linux adoption on embedded devices. Qtopia, Trolltech's application suite for smart phones and PDAs, is based on Qt/Embedded, which in turn is based on Linux.

With the growing popularity of Linux and Mac OS X, companies are becoming increasingly concerned about portability, even when they have no immediate plans to port their applications. They don't want to be locked in to an unsupported technology, such as MFC or Windows Forms, and prefer to turn to a widely used and actively developed cross-platform toolkit. For many of them, Qt is that toolkit.■

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Libranet 3.0

John Knight gushes over the latest release of Libranet Linux.
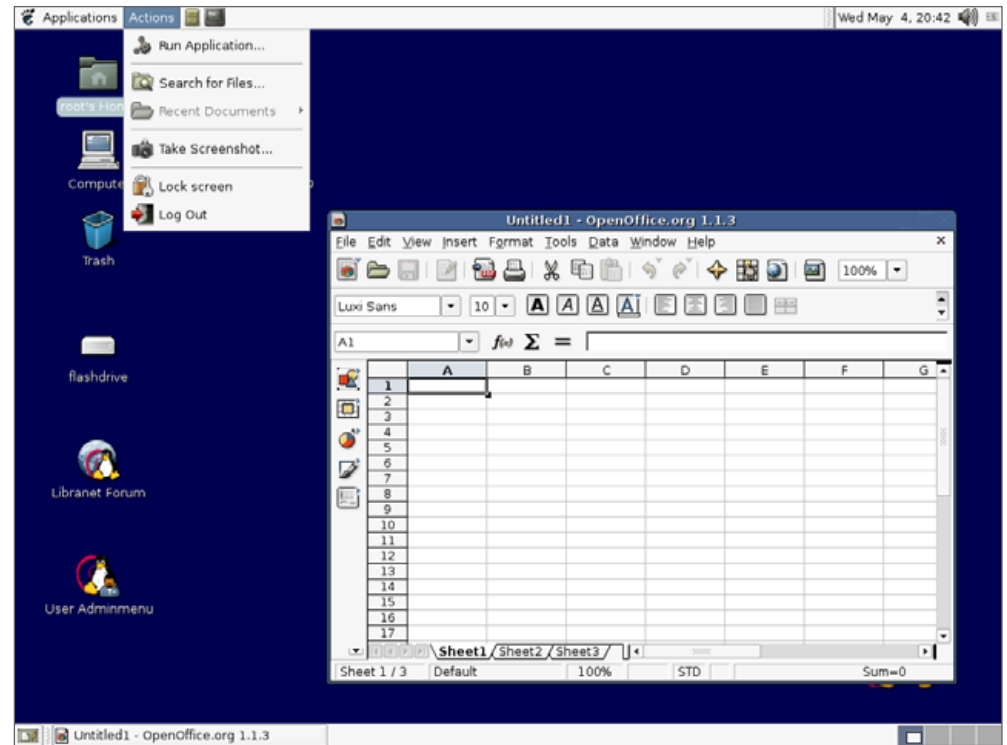
JOHN KNIGHT

Libranet 3.0 Features:

- **Kernel 2.6.11**

- **KDE 3.3.2**

- **GNOME 2.8**

- **Xfce 4.0.6**

- **OpenOffice.org 1.1.3 (Debian version)**

- **Firefox 1.0.2**

There are plenty of popular distributions of Linux you may have heard about. But there is also a lesser known distribution, Libranet, which takes a different approach to the desktop than most other distributions. Rather than assuming that new users need something that looks completely like Windows, or that all of the tools need to be customized, the folks who produce Libranet apply their efforts and innovation to plug holes where they exist and to present more of a standard and seamless desktop. We take a look at their latest release, 3.0, and see whether their previous history of innovation stands up.

INSTALLATION

Unlike the previous version, 2.8.1, 3.0 starts and configures the X Windows System (X) as soon as it can. This makes the whole installation process a lot nicer, as you can turn the screen resolution up or down right away and not be forced to work in an awkward, small space (as is usually the story with any OS installation). Another added bonus is that the X Windows System is all ready to go when you load it up—no changes necessary.

The X configuration is fantastic. I already was using my accelerated video drivers before it even started! Once in the configuration screen, I was able to choose which options I wanted for screensavers and resolutions, and I even could change around which driver modules to load. There is another nice touch—Libranet offers widescreen resolutions for those who have widescreen monitors. To put it simply, I was chuffed with the X configurator, and I haven't seen any other like it—Libranet was certainly


GNOME 2.8 Running OpenOffice.org

off to a great start!

Next came the partitioning of the hard disk. This is usually where most beginning Linux users feel as if they've entered the Twilight Zone and have no idea how to approach the process. Libranet was adequate in handling this but not amazing. Some of the warning messages were off-putting and a touch misleading.

The next few configuration screens were nice. The network setup has nicer GUI options, and it is better than the old text-based installer. The bootloader options, which let you decide how to boot Linux on your computer, were fantastic. Libranet gives you not only a choice to make a boot floppy, but, get this, it lets you create a boot CD. The installer actually includes a small CD-burning application. Take notice distribution vendors, floppies are obsolete, and this kind of innovation is the way of the future.

The process for selecting the software you want to install is a little longer with this version than it was with the previous release of Libranet, but this is due to a large increase in the amount of packages available. This also varies, depending on how many CDs you download. Libranet comes on 1–5 CDs or a single DVD, so the choice is yours as to how comprehensive you want to make your Libranet system. The package selection is very advanced with extensive choices for multilingual dictionaries and GUI (graphical user interface) components. This is probably because Libranet is based in Canada, a multilingual country in itself, which makes it easier to pay attention to users' needs.

Once you begin installing packages, beware. You have a one or two hour wait ahead of you. Version 3.0 includes a progress bar, which was missing in 2.8.1. In the old version, the installation times remained a complete mystery. Once the packages are installed, the process is finished and you are ready to reboot into Libranet Linux. Strangely enough, there didn't seem to be any sound-card configuration steps. Sound simply worked when I rebooted. This can have its ups and downs, but in the end, it's nice to have hardware that simply works with no configuration.
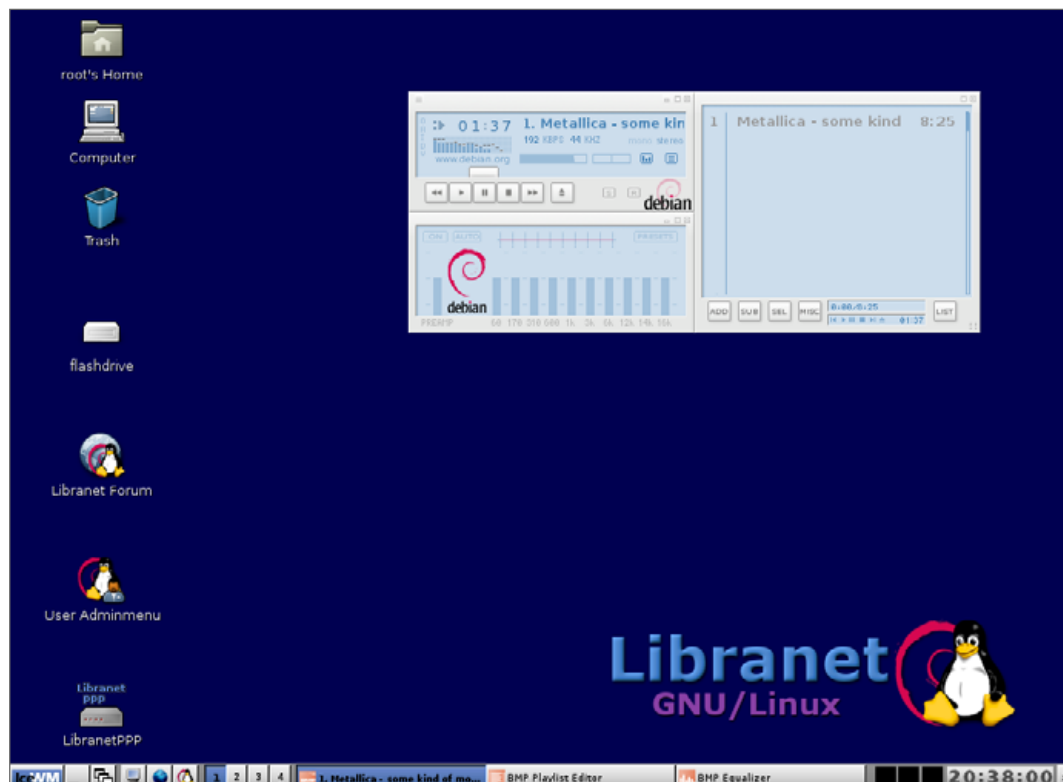
UP AND RUNNING
Once you reboot, Libranet greets you with some nice intro screens. The first praises the efforts of the Open Source community, the next explains the login process and the last tells the user about the program called Adminmenu, all of which are very useful to new computer users. Once you reach the login screen, the default choice of your desktop is called Libranet. You are free to choose from a number of different window managers, including KDE, GNOME, fvwm, Afterstep, IceWM, BlackBox, Openbox, Xfce, WindowMaker and fluxbox.

The default Libranet session uses a modified version of the lightweight desktop IceWM and adds the Nautilus desktop and file manager used in GNOME. This gives users a fairly

Libranet's Own Window Manager Running the Light Beep Media Player

"Windowsy" feel. The relative simplicity of IceWM allows the Libranet folks an easier way to customize the desktop without having to modify the more complex KDE and GNOME. The Libranet desktop has its own charms but is fairly utilitarian in looks and function; for most users, I would suggest sticking with KDE or GNOME.

KDE users are catered to with KDE 3.3.2. This is not the current bleeding-edge release of KDE, but it is still the most recent stable release. KDE simply has had a few icons added and its desktop background changed. The change of background is probably for reasons of continuity, but for aesthetic reasons, feel free to change it to something else. The included KDE isn't too crippled and behaves itself stability-wise, but unfortunately, KDM still is not included as an alternative to GDM (KDE and GNOME's login managers).

As for GNOME users, GNOME 2.8 is included, and again, the only real changes are the desktop background and some icons to the Adminmenu and so forth, which are more useful than invasive. So in the end, GNOME users shouldn't be too angry either.

The new 2.6 kernel makes desktop responsiveness very snappy too; even with all of the default background services running, window and menu reaction time still was fast.

SOFTWARE

Libranet always has been known for a great software collection for the desktop, and they've yet again surpassed themselves with this release. Fancy some office work? Fire up OpenOffice.org. Web browsing is bleeding-edge with Firefox 1.0.2 (at the time of writing this anyway), and if for some reason you prefer its older brother, Mozilla 1.7.6 is also included. In fact, simply looking at the Internet menu is overwhelming; whatever niche tool you're looking for, it's probably there!

Libranet really shines when it comes to multimedia. I was thinking of providing a list of the available applications, but there's far too many. For audio playback, take a pick of many players, but for some more interesting choices, how about amaroK? Or Beep, a neater, simpler remake of XMMS?
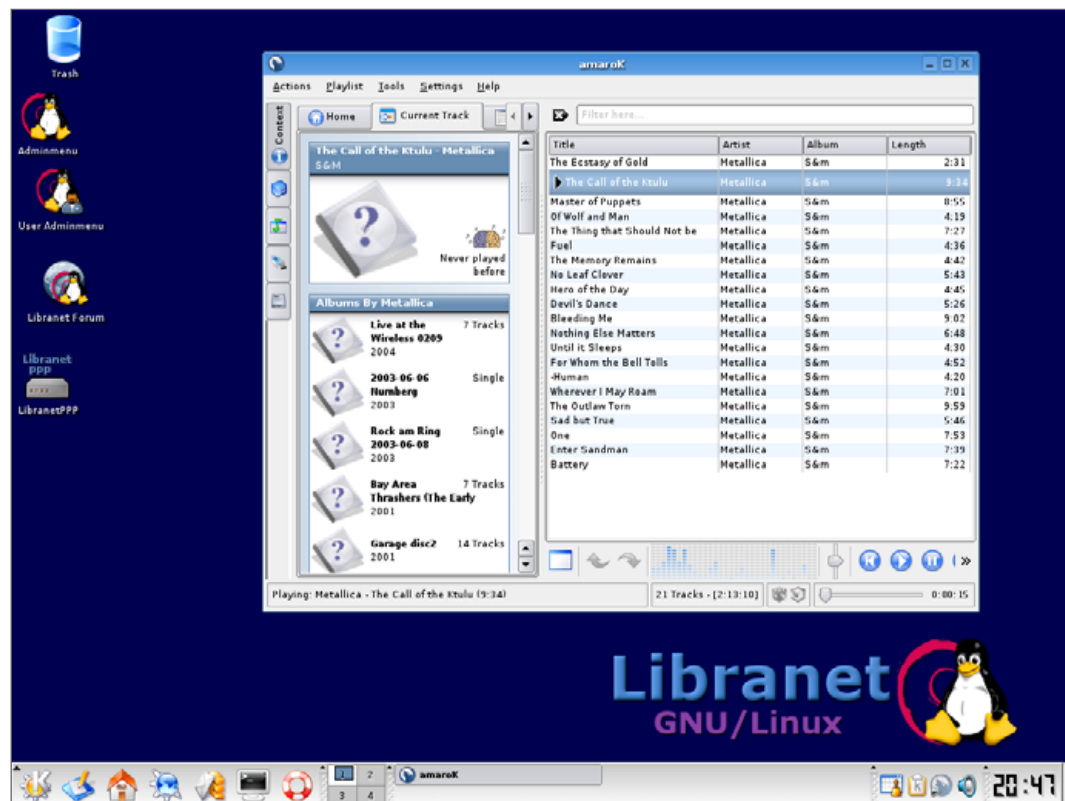
Perhaps JuK takes your fancy? Fancy editing audio? KWave Sound Editor, Audacity and GLAME are provided, among others. What about *making* music? Try BEAST, Ardour or brahms. By the way, do you have an iPod? No problem—try gtkpod.

But that's only audio; the video side of things certainly isn't lacking either. MPlayer is included for advanced video playback, along with the usual Totem, plus RealPlayer 10 to top things off. Libranet really has made an effort with DVD playback, and it provides a number of different applications available to suit your tastes: Xine, Ogle, oKle and, of course, MPlayer if need be. You also can do your own video editing with Kino. There are even some TV-tuner applications.

KDE Running the Next-Generation amaroK

When it comes to CD/DVD burning, Libranet really shines again. You have a choice of K3b and GCombust. Normally, it takes a lot of setting up to get CD burning to run properly, let alone DVD burning, but K3b simply ran properly without needing my intervention. I couldn't believe I didn't have to do a thing! Of course, playing encrypted DVDs didn't work, as most distributions (if not all) avoid it for legal reasons. But all you have to do is find and install libdvdcss to get all the DVD players working. All in all, this is one of the coolest software compilations around, and I challenge you to find a better one for desktop needs.

ADMINMENU

The Adminmenu is the core of Libranet. Most distributions have a central selection of software for system administration, but Libranet has unique kernel functions that are unmatched. Libranet makes compiling a Linux kernel easy. In the past, it used a text-based program, which was quite easy to use, but now things have moved onto a full-blown GUI; it's just as easy to use as before, but it has added features for managing different kernels. If you don't know what you're doing, simply run with the defaults and choose your processor type; otherwise, tweak away!

Libranet has added a number of new applications, removed some and updated others. The biggest change in this new version is that Libranet now splits the Adminmenu into two parts: the standard Adminmenu and the User Adminmenu, which has single-user-specific options that don't require a root password like the normal Adminmenu. The changes to the Adminmenu are not unwelcome, and there certainly are some pleasing improvements. The Adminmenu still deserves the reputation it has, and it helps make this distribution unique.

BRICKBATS

No distribution is perfect though, and Libranet has its share of faults. CDs often refuse to eject for no apparent reason, yet they unmount fine. It seems to be a problem with HAL (the hardware abstraction layer—something you shouldn't need to fiddle with). Think of HAL as a driver/device middleman. When I disabled it, suddenly my DVDs ejected fine.

Libranet doesn't set up Windows partitions automatically. New users simply won't know what to do in this case. Libranet needs to add an application in the Adminmenu to let users scan for Windows partitions and then automatically set them up for use.

I also experienced problems with the multimedia application gstreamer. Some applications work around problems and other refuse to run, so you may have to get a Linux guru to do some post-install tweaking. If you are an amaroK fan, simply change the sound engine from gstreamer to aRts, or else it will complain about not being able to play MP3 files.

SUMMARY

Although there are a number of flaws, there are so many huge innovations with this distribution that it simply cannot be ignored. Hard-core Debian nerds may not see the benefits, but desktop users should be pleased. Network administrators won't find much pleasure here either, as this is clearly a desktop distribution. But typical desktop/multimedia users will have a field day, as Libranet is easily one of the strongest choices available, if not the strongest. One can always expect flaws in any x.0 release, and with 3.0 as a framework, the next release promises to be unstoppable.

I personally recommend the Libranet series to most new users as it presents standard tools and standard desktops with some added extras, rather than trying to lock users in to their own way of doing things (which makes changing distributions very difficult). Innovation is clearly shown with the CD/DVD burning that simply works without taking any prior steps, along with a number of areas system-wide that simply work without the user knowing a thing. Libranet is a shining example of how Linux desktops are already great without the need for heavy modification and that the makings of a good distribution are simply hard work and elbow grease.

Libranet is, in one word, awesome.■

John Knight is a 20-year-old, rock-climbing, Japan-loving megalomaniac, trying to take over the world from his bedroom via his keyboard. He spends most of his time tinkering with MPlayer and headbanging to his MP3s.

Gadget Guy: Products with Drive

SEAN CARRUTHERS

One thing's for sure: with the explosion of multimedia files, from MP3s to photos to video, the need for storage is growing like crazy. That old 20-gigabyte hard drive you got with your computer is now positively bursting at the seams, and the 128-megabyte MP3 player you thought would be your best friend forever is just so...small.

As we become more multimedia-hungry, we need bigger and bigger hard drives, both for our home computers and for our portable gadgets. Here's a pair of Linux-friendly gadgets with hard drives inside.

PALMONE LIFEDRIVE MOBILE MANAGER

http://www.palmone.com
$499 US

Palm still rules the roost when it comes to organizers, and with the last few Tungsten models, the Palm's multimedia abilities have gotten pretty snazzy. The biggest problem, though, is not enough storage! For anyone who wanted to watch videos or store more than a handful of MP3 files or photos, it was absolutely imperative to invest in some high-capacity SecureDigital cards.

No longer. The new LifeDrive Mobile Manager comes with a four gigabyte mini-hard drive built right in, which means plenty of storage space for photos, music files and video. (It's the same amount of storage you'll find on the smallest iPod Mini models, in fact.) There's still a SecureDigital slot on the top of the LifeDrive, allowing you to view the images from your digital camera, swap files with your friends or offload files to make more space on the drive.

The LifeDrive is also the first member of the Palm family to feature both of the major wireless technologies: in addition to Bluetooth connectivity, the LifeDrive also comes with 802.11b Wi-Fi, which means you can get access to the Internet from any wireless hotspot.

Like the Tungsten T5, the LifeDrive has an excellent reflective screen, with a resolution of

320 x 480 pixels. Like that previous model, the Graffiti pad is virtual. Rather than printing it right onto the plastic, it appears as computer graphics; when you tap an icon on the screen, the Graffiti pad disappears, allowing you to use more of the screen for photos or documents. There's also a Rotate Screen button along the left-hand side of the LifeDrive for one-touch switching between portrait and landscape mode too. Simply tap the button if you want to watch a video or want to view your spreadsheet horizontally.

If you're running Linux, Palm's handhelds are more fully compatible if you download/install the latest utilities (KPilot, for example). If you can't be bothered with installing and configuring the proper applications, there's still a quick and easy way to get your files and applications onto the LifeDrive.

Like the T5 before it, the LifeDrive features an icon marked Drive Mode. Once you tap the icon and turn on drive mode, you can plug the LifeDrive in to any computer, and it will act as an external hard drive. You can then drag and drop your multimedia files directly into the appropriate

folder on the LifeDrive. There's even a folder for applications, meaning you can drag and drop Palm applications instead of being forced to HotSync them onto the device. All files that you drag to the LifeDrive in this manner—whether multimedia or applications—are then accessible from the Files icon on the LifeDrive.

You also have the option of installing new applications to the LifeDrive over the Web. If you click on the application file when you're at a Web page, the LifeDrive gives you the option of installing it directly to the device. You certainly could do this with earlier models like the Treo 600 (via cellular) or the Tungsten T5 (via Bluetooth), but with the addition of Wi-Fi wireless networking to the device, this process is faster than ever before.

A few things aren't perfect, however. First of all, as with the majority of Palm devices, the battery is locked firmly inside the LifeDrive. In other words, when the battery inevitably needs replacing, it'll mean a service call.

Second, you'll want to be very sparing with your use of the wireless networking, because the Wi-Fi component really sucks back battery power. You can get reasonable runtime between charges when you're not using wireless, but with Wi-Fi on, you can use up your entire battery charge in a few hours.

If you're planning to go easy on the wireless, you'll probably be fairly happy with the LifeDrive's multimedia capabilities. That's especially true if you have a bundle of photos to show off to friends and family. In addition to all the usual Palm capabilities like calendar and address book, the LifeDrive also handily doubles as a great digital wallet.

SEAGATE 400GB EXTERNAL DRIVE

http://www.seagate.com
$350 US

It doesn't matter what kind of operating system you have—Linux, Windows or Mac—eventually you're going to run out of hard drive space. Thankfully, a growing number of high-capacity external hard drives are compatible with all of the aforementioned operating systems, and they also make it easy for you to move files between them, if you're a multi-OS household.

Seagate's newest external drive is a whopping 400 gigabytes, which works out to about 6,400 hours of music, or around 400 hours of digital video.

The drive actually comes in two versions. The storage-only version comes with a USB 2.0 connection for fast transfer to the computer. There's also a push-button backup version that launches back-up software on a PC or Mac when you press the button on the front panel; it features both USB 2.0 and FireWire 400 connections to the computers.

The drive should be compatible with most up-to-date versions of Linux. Simply plug it in, and it should appear as a removable drive. Unfortunately, the included backup software won't work with Linux, so you'll have to settle for

a more primitive drag-and-drop form of data backup, unless you're ready to start configuring a Linux-friendly backup package.

The drive is designed to sit in either vertical or horizontal orientation. A rubber ring along one of the long sides of the drive casing is designed to sit on your desktop, but it also tucks nicely into a circular indent on the opposite side of the casing, if you want to stack multiple drives. (The form factor is coincidentally almost identical to the Mac Mini, by the way; if you've got a Mini in the house, they stack beautifully.) For those that prefer to stand it upright, there's a clip-on plastic stand that attaches to one of the small ends.

One of the nicest things about this drive is its power management. First of all, it has a power button, which is more than you can say for some of the competing products out there—when you really don't need the drive, you can flick the switch. If you forget to turn it off between uses, though, the drive electronics stay on, but the drive inside powers down, which means you won't torture your loved ones with the high-pitched whine of the drive spinning all night long if you forget to shut it off.

All of these things add up to a winner. No matter which computer you're planning to use it with, the 400GB Seagate drive is a great choice. ■

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

Guarddog

Over the last few years, software-based firewalls have become more and more accessible to Linux users as a way to secure their systems against potential malicious attacks.

Major OS makers, such as Microsoft and Apple, as well as Linux distributions, such as Red Hat or SUSE, started building simple interfaces for enabling and configuring a basic firewall on personal computers.

Guarddog is a very powerful firewall configuration system that offers support for Linux firewall facilities, such as ipchains/iptables, and provides you with a fine-grained configuration system.

The initial dialog allows you to configure network zones for your network interfaces (in most cases, the default settings in this section do not need to be altered).

The second section of the user interface is the main firewall configuration dialog. It provides you with a rather complete list of network protocols sorted by category. Clicking on a specific protocol display provides you with information such as risk level and a description of the protocol and ports used by the protocol, and marking the check box associated with a protocol allows connections for that specific protocol through your firewall.

Guarddog also allows you to specify a logging policy for your firewall to maintain a journal of network events worthy of attention, which lets you identify problems with your configuration or perform audits in case of an intrusion of your system.

The Advanced section provides an interface to create custom protocols based on port ranges, transport-layer protocols and a description of the protocol, but it also lets you turn off the firewall completely or import/export Guarddog configuration files from/to other computers.

Another important aspect of the application worth mentioning is the excellent (alas, often ignored) documentation provided with the application. The Help file, titled the Guarddog Handbook, is well written and offers a walk-through of the application, including the complete setup of a fine-tuned firewall facility from the ground up.

If the Help file doesn't do the trick for you, be sure to get the next issue of *TUX*, which will include a tutorial on how to set up and use Guarddog.
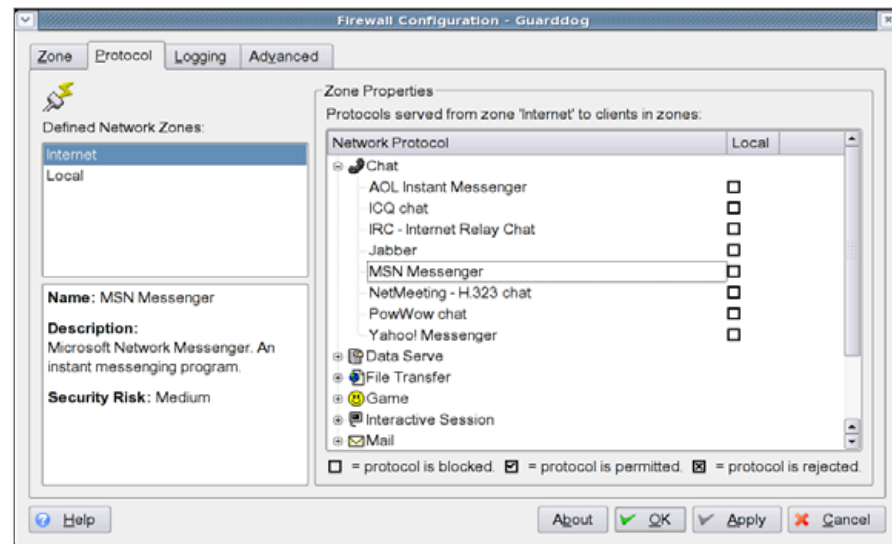
—Xavier Spriet

<div style="background:orange">

About Guarddog:

- **License:** GNU General Public License (GPL)
- **Price:** Free
- **Home Page:** http://www.simonzone.com/software/guarddog

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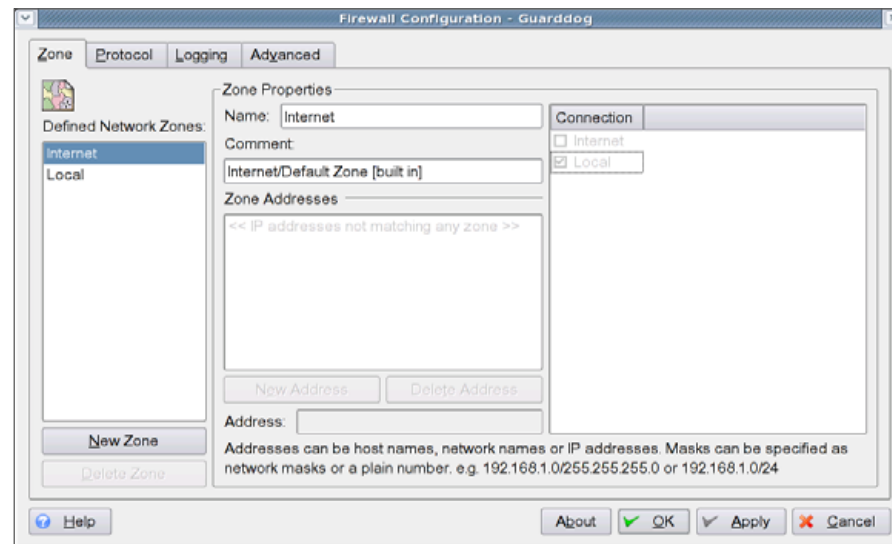
Guarddog Zone Configuration Dialog

Protocol Management Dialog

Liferea

Our addiction for fresh, quality information at all times is quickly becoming overwhelming. It becomes harder and harder to keep up with the flow of information from sites like Slashdot, fark.com, CNN or even our friends' and family's blogs.

News aggregators, such as Liferea (Linux Feed Reader), have emerged as a convenient and elegant solution that centralizes the flow of data in one place.
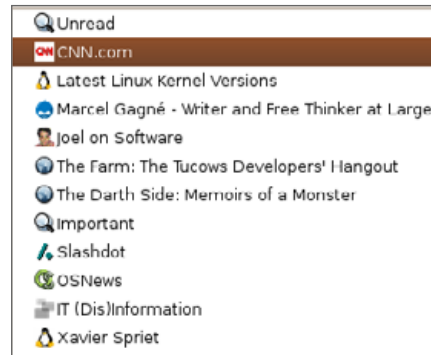
RSS Buttons

Many of the modern content-based Web sites you encounter today include a feature called RSS Feed. You will recognize these sites from the RSS button that will point you to a document written according to the RSS specifications.

Simply instruct Liferea to monitor a Web site and it periodically will check for updates and display a notification on your screen as soon as the Web site has been updated.

Liferea lets you manage the feeds you are monitoring, organize them into folders and run searches against them.

Liferea Feeds List

A dialog prompts you for all the information required in order to subscribe to a feed. Although the most direct approach is to provide Liferea with the complete path to the RSS document on the Web site, it is usually possible simply to enter the address of the Web site itself, and Liferea will attempt to locate the associated RSS feed.

Feeds in Liferea are organized
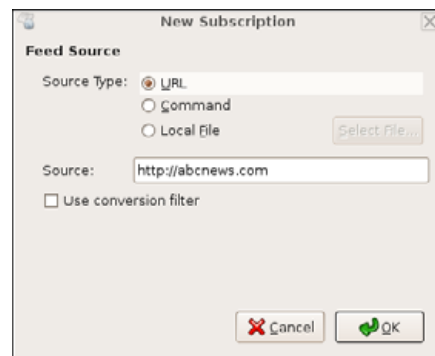
Liferea Subscription Dialog
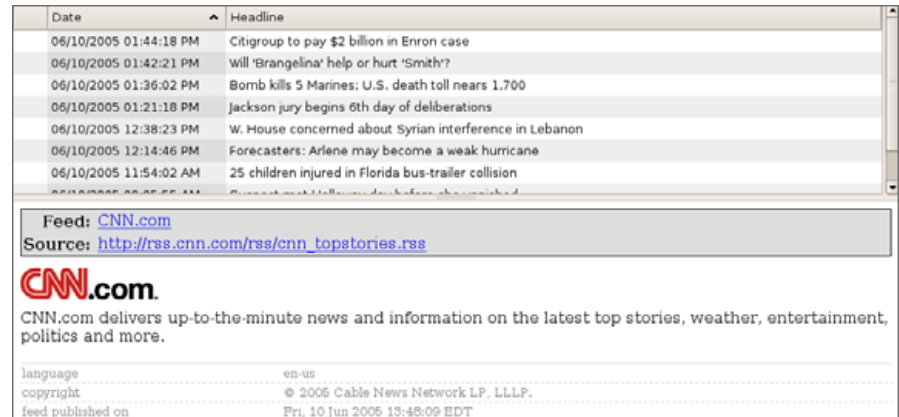
Liferea News Panes

much like messages in a typical e-mail client. Selecting a feed displays a list of new items in the upper panel, and selecting a news item from the upper panel displays the complete description in the preview pane.

The application also allows you to create Virtual Folders that let you display a set of news items from all the feeds you are monitoring, provided they match a certain set of criteria. Criteria available while creating virtual folders include status (read/unread), flags, date or a set of keywords.

The configuration options allow you to reconfigure the placement of the notification bubble (by default located on the top-left corner of your screen), the site refresh interval, system tray status icon, as well as a lot of additional features of the application.

Liferea automates the process of gathering and organizing the flow of data from the Web sources that matter to you, so you can be sure you never miss important news on your best-friend's on-line journal, and that you are the first to know about important world events.

—Xavier Spriet

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About Liferea:

- **License:** GNU General Public License (GPL)
- **Price:** Free
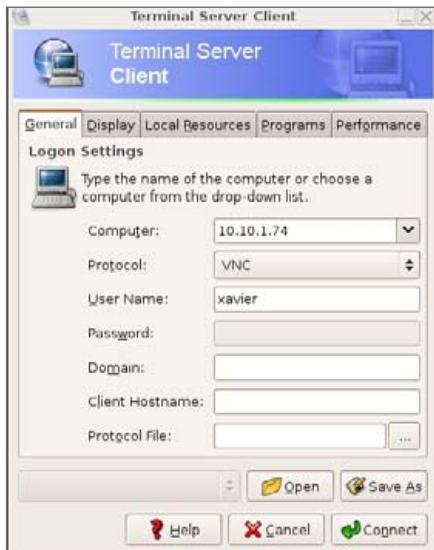- **Home Page:** http://liferea.sourceforge.net

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tsclient

tsclient is a simple and coherent front end for a variety of remote desktop access applications commonly available on Linux desktops. Some of the protocols supported by tsclient include RDP (the default Microsoft Windows Remote desktop system), VNC (more common on Linux desktops, though also available for Windows) or ICA (Citrix Metaframe).

tsclient provides compatibility with the Windows Remote Desktop client through the use of the same format for saving and loading remote desktop profiles. This means

you can export all your remote desktop profiles from your Windows computer and load these connection profiles directly in tsclient.

Additionally, the various tabs located on the top of the application allow you to configure various aspects of the connection you are about to establish, such as screen resolution, color depth, sound event management and so on.

For those who haven't yet had a chance to play with that particular aspect of the operating system (most graphical operating systems support some form of remote desktop access), it is incredibly easy to set up and access remote desktops. Both

Enabling Remote Desktop under GNOME

KDE and GNOME provide their own implementation of shared desktop through the VNC protocol.

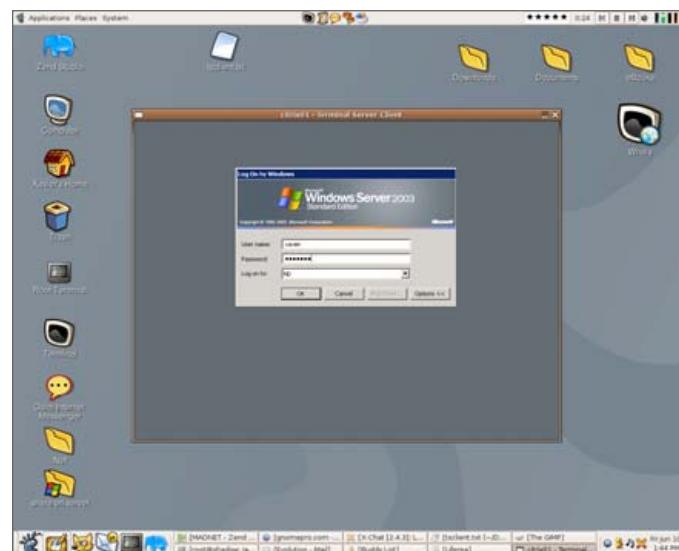In GNOME 2.10, the Remote Desktop entry in the Preferences menu allows you to share your desktop and specify access policies

(password protection) and privileges (allow users to take control of your desktop). In Windows, the Services management tool allows you to turn on the built-in RDP server.

Once the remote desktop service is running on the host you are trying to access, simply fire up tsclient, specify the protocol to use (typically, RDP or RDPv5 for Windows and VNC for Linux), enter the IP address of the machine you want to access as well as a user name and password, and a new window will show up on your desktop with the entire desktop of the remote machine running inside.

—Xavier Spriet

Main tsclient Dialog

tsclient Connection Preferences

Remote Windows Desktop Running on a GNOME Desktop

streamtuner

With the cost of bandwidth slowly decreasing and the increasing number of on-line radio stations available, it has become difficult to pick a single favourite among them all. On-line radio station directories have emerged as a way to organize radio stations in coherent categories on dedicated Web sites.

streamtuner maintains a searchable list of on-line radio stations from multiple directories and instructs your favourite audio player to switch from one station to another without having to find it by searching through all available directories.

The application displays a list of available categories in the left pane and a list of stations available with regard to the selected category in the main pane.

Another interesting feature of streamtuner is the integration with Streamripper, a command-line-based utility that allows you to record on-line audio streams on your local system.

The main streamtuner interface features a toolbar that lets you listen, record or stop streams, as well as reload the list or visit the Web site associated with a specific stream. Under the main toolbar is a set of tabs representing the radio directories for which you have enabled support.

streamtuner Stations List

If you know what you are doing, the Preferences dialog also allows you to customize the commands the application runs in order to play and record streams, as well as what browser to use.

Making the application interface with Rhythmbox was a breeze. Simply replace the command for the action titled Listen to a stream with rhythmbox, and off you go!

streamtuner also offers a stream search feature. The scope of that search is the directory you have selected, so you need to run separate searches for each of the station directories if you cannot find the song or station you are looking for in the default directory (SHOUTcast).
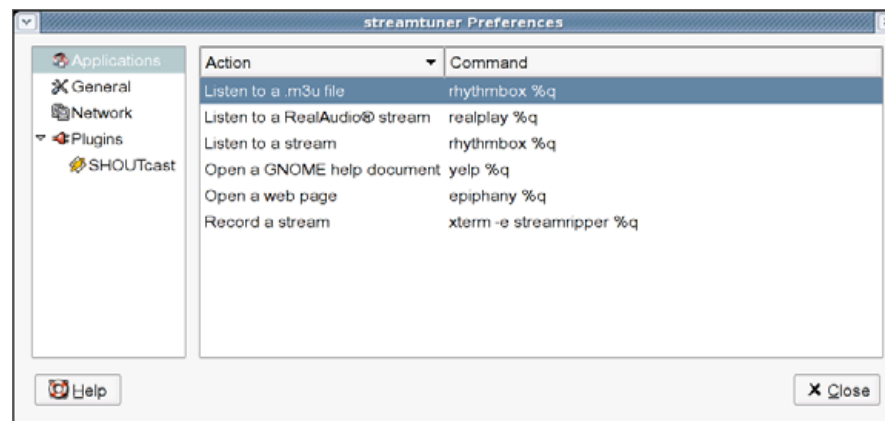
—Xavier Spriet

About streamtuner:

- **License:** Revised BSD License
- **Price:** Free
- **Home Page:** http://www.nongnu.org/streamtuner

streamtuner User Interface Elements

streamtuner Preferences Dialog

Why Piracy Hurts Open Source

A proper view of open source is the right alternative to piracy.

JOHN KNIGHT

Over and over again, we hear from people in various software companies telling us that piracy hurts their industry. "Boo-hoo", I hear you say. "Piracy hurts the consumer by jacking up the price"—righto. As far as most of us are concerned, piracy is something that doesn't affect us; it simply means that the BMW-driving-industry-heads don't get such a fat check at the end of the month. But, have you ever considered the effect that piracy has on open-source software?

At first glance, piracy might seem to be "all in the spirit" of the open-source movement—a seemingly left-wing cause, designed to give big companies a run for their money and a way to "stick it to the man". Anarchists with CD burners pumping out free copies of proprietary programs should be all in the same vein, right? Wrong. Piracy hurts open-source projects in two big ways.

First, piracy helps to establish and cement major proprietary programs as the industry standard. Many people take for granted that they simply can download a CD image from a warez site or get their friends to copy the original. This makes for easy access to major software suites with zero dollars paid, and the software then spreads like wildfire. If everyone else is using this particular piece of software, then so must you, or otherwise you'll be left behind. This means that an open-source program will be fighting more and more against a popular commercial alternative.

Second, piracy makes open-source equivalents look inferior. With the removal of social conscience in regards to copying, no longer will a user make a choice based on the traditional parameters of budget, suitability and effectiveness. Piracy removes the cost factor, leaving the biggest and best as the only viable choice. Let's take a look at some real-life examples of commercial software and their open-source equivalents.

ADOBE PHOTOSHOP

Photoshop is widely regarded as the best image editor industry-wide, and the yardstick by which other editors are measured. All of my graphic designer friends use Photoshop, and none of them have paid for it. I've given them The GIMP, and although they all liked it to a point, none of them viewed it as a viable alternative to Photoshop, due to it not being as fully featured, among other issues like adjusting to another interface, which makes it harder to use at first.

However, none of them felt the sting of shelling out hundreds of dollars for this advanced piece of software, and therefore, none of them are able to make a proper comparison. The GIMP developers do a lot of hard work trying to make a free alternative to commercial graphic editors, and all I ever hear is, "it's not as good as Photoshop." Unpaid volunteers are competing against paid software designers and are being unappreciated by the masses.

MICROSOFT OFFICE

Office needs no introduction; it is used daily by millions, Microsoft's ubiquitous product has been around for more than a decade. Most people I know either got it preloaded on their new PC, or more likely, had it copied by a friend. The open-source alternative, OpenOffice.org, is gaining more and more popularity, but its importance is still not grasped by many who simply rely on a copy of Microsoft Office lying around (not a legally licensed one). If every user realized how much money they really owed Microsoft and had to pay-up, they'd be switching in droves!

If we were looking at the world of cars, where cost factor is still the main equation, most people would be going for the smaller, more economical version. Only those that could afford it or genuinely need it would buy a bigger car. In the software world, we simply can steal the biggest and best and no one is bothered by it. Why? Because everybody does it. Obviously, we need the return of the old social conscience, but that's easier said than done. How to combat piracy is outside the scope of this article, but we can at least cut down piracy in our own community. If a friend wants an illegal copy of a commercial program, please don't give it to them, but feel free to give them an open-source alternative.■

John Knight is a 20-year-old, rock-climbing, Japan-loving megalomaniac, trying to take over the world from his bedroom via his keyboard. He spends most of his time tinkering with MPlayer and headbanging to his MP3s.