

REVIEWED: OpenOffice.org Calc, Three Portable Power Solutions



"Tell Us About Yourself"



Diary of a Well-Dressed Penguin

TUX

the first and only magazine for the new LINUX USER

digiKam

How to touch up your photos

Inkscape

Using the right tool for the job

ISSUE 6 • SEPTEMBER 2005

READERS' CHOICE AWARDS

YOU PICKED THE BEST OF THE BEST. SOME PRODUCTS WON IN THEIR CATEGORY BY A LANDSLIDE, OTHERS NEARLY TIED FOR FIRST PLACE. FIND OUT WHAT *TUX* READERS THINK ABOUT DISTROS, BROWSERS AND MORE.

THIS MONTH'S MANGO PARFAIT:

- Associate files to programs in GNOME and KDE
- The easy way to initialize a new Linux install
- Get beyond Fedora Core's limited package selection
- GNOME inserts bamboo shoots under your fingernails



PLUS:
LIGHTNING STRIKES WITH THUNDERBIRD

How to add more power to this wonderful e-mail client

GOOGLE THIS

How to add a Google bar to Konqueror

LIGHTWEIGHT WINDOW MANAGERS

GNOME and KDE too slow for you? Try IceWM

TUX HAS AUDACITY

You can use it to edit sound files

METADOT WEB PAGE EDITOR CASE STUDY

We never Metadot we didn't like

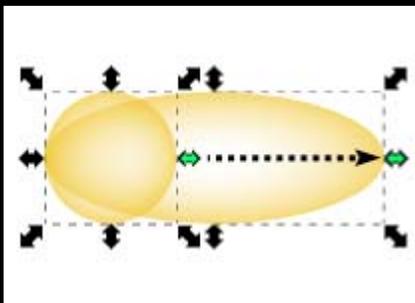


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TUX

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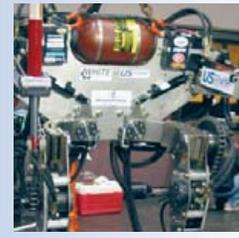




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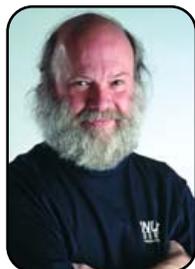


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FROM THE PUBLISHER

Linux Evolution

TUX needs to get to know you better.

PHIL HUGHES

Twelve years ago, when we were starting *Linux Journal*, we had to answer the same questions as we did last year when we were starting *TUX*. Although this is less than the complete set, it boiled down to:

- What is needed in the Linux community?
- What can we do to address that need?
- Is it possible for the effort to support itself?

Twelve years ago, there was no commercial market. The closest you got to Linux vendors were small companies selling CDs with Linux on them. What the magazine needed to do was show people that Linux was real. That is, Linux was something that could do useful work. By doing that, we could build a market.

Today, the picture is quite different. Commercial use of Linux has skyrocketed and continues to grow. Linux serves millions of Web pages, provides file servers, firewalls and many other systems in homes, and small and large businesses. Linux, in embedded systems, helps people watch TV in a new way through TiVo, provides more capabilities in cellular phones and has even been on board the Space Shuttle.

These 12 years have made tens of millions of people both believe in and rely on Linux to do things for them. In most cases, these are things that need to be reliable. People don't want to have to reboot their TiVo so that it will do its job—or their Web server. Thus, the market acceptance is there in terms of Linux being something that works reliably.

Enter penetration into the desktop market. This has been an uphill battle just like Apple's Mac OS. Along the way, other choices such as BeOS have dropped out of the race. Good or bad, Microsoft continues to dominate this market. Why?

Inertia is the best answer. This inertia works in two ways. First, if you have market share, it is easy to be able to afford to tell people you are the right answer. It just costs less per copy to promote yourself. Beyond that, people tend to resist change. Thus, a Ford owner is more likely to buy another Ford than offer other vendors a fair shake at their potential business.

With the three questions I mentioned at the beginning of this article, what we are trying to do is get more people to switch to Linux desktops. Even though more of you are currently using the competition, we have to help with that inertia. Can we? I think so. Can we show non-Linux users that it is to

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their advantage to become Linux users? In order to address the inertia side, we have to both assure you that Linux will be an advantage and help you get over the work you need to do to make the switch.

Fine. We are up for that. In fact, the <http://www.tuxmagazine.com> Web site tends to show off the advantages of Linux, so that is one piece of the project. The other you see here. Our monthly magazine is all about the how-to side of accomplishing things with Linux.

I think we have the first two questions answered. As for the third, we need your help. We know what it costs to produce *TUX*. And you know what you are paying for it. We don't need to use a Linux-based calculator program to show there is a deficit. Clearly, there needs to be another entry in the equation—a revenue source.

This has been relatively easy with *Linux Journal*. *LJ* is focused at a nice technical group of people. That makes it easy to sell to advertisers. You folks, on the other hand, are very diverse. We know that from the info you gave us when you subscribed.

Here, I ask that you take a few minutes to respond to the following questions. It helps us build a profile of our readership. Thanks in advance for doing this. ■

Phil Hughes is Group Publisher for SSC Publishing, Ltd.

How many of the last three digital issues have you read or looked through?

- None
- 1 out of 3
- 2 out of 3
- All

Considering all of the times you've looked at it, about how much time in total do you spend reading or looking through an average issue?

- Less than 15 minutes
- 15 - 30 minutes
- 31 - 45 minutes
- 46 minutes - 1 hour
- More than 1 hour

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- Discussed article/ad with others
- Archived the issue for future reference



FROM THE EDITOR IN CHIEF

Diary of a Well-Dressed Penguin

***TUX* is growing and getting ever closer to meeting its original goals.**

NICHOLAS PETRELEY

Of all the issues of *TUX* we've delivered, I'm most proud of this issue, even if I do say so myself. As I'm sure you know by now, *TUX* is the first and only magazine for the new Linux user. It got off to a bit of a rocky start. The *TUX* content was a little too advanced for new users and addressed some philosophical issues that most new users really don't care much about. I was brought on board and asked to put *TUX* back on track so it would better address the target audience—Linux desktop users, especially those who are not all that computer-savvy.

It wasn't easy. We had a backlog of articles that were not as appropriate for *TUX* as I'd have liked. We still had to publish some of them simply because it takes time to build up a backlog of articles that *are* appropriate for *TUX*. I also bit off more than I could chew. Some of my ideas for *TUX* are still on the back burner, waiting for the day when we can afford to implement them.

We're not done making *TUX* the best it can be, but this issue comes closer

than ever to meeting its goals. We have some great new-user articles this month. Don't miss the how-to articles, they're terrific. One of my favorites is the how-to article on Audacity. Audacity is a very powerful sound editor. Granted, many of you may think you don't have a use for Audacity, but you may find it very useful as you delve into the depths of what Linux programs can do. For example, if someday you use Linux to customize home videos, you can use Audacity to edit the sound tracks for them.

THE AUDACITY OF GEORGE MARTIN

I recently ran across a very trivial but fun use of Audacity. I was reminiscing about some old Beatles tunes that I liked. As I listened to the song "In My Life", I recalled an interesting bit of trivia about that song and wanted to share it with my kids. A classically trained musician, George Martin contributed a lot to Beatles songs. By the way, George Martin is one of the unsung heroes behind the Beatles. His training and talent went a long way toward making many Beatles

songs as cleanly arranged and mixed as they are.

Anyway, if you remember the song "In My Life", there is a little Baroque-sounding instrumental ditty in the song. It is quite well done, very faithful to Baroque style, and it sounds difficult to play unless you're used to playing Baroque music. The instrument almost sounds like a cross between a piano and a harpsichord.

George Martin performed this instrumental bridge on a plain-old piano. Here is how you can tell. If you have the song on disk, load it into Audacity. Select the instrumental section and use Audacity to play it at half speed. You will hear it the way it was originally recorded—an octave lower at half speed. You can tell it was recorded this way because it sounds exactly like a normal piano at half speed.

At double speed, the piece plays an octave higher than it was recorded, but it changes the sound of the instrument slightly, which is why it sounds like it has a bit of "harpsichord" in it. I don't know

if George Martin played it at half speed because it was too difficult to play at the correct speed, or if he simply wanted to alter the way the instrument sounded. I suspect it was the latter, because if you listen to it at half speed, you'll hear that he plays piano with the utmost precision, right down to the accurately executed Baroque trills. Anyone who plays that well at half speed could probably play it just as well at a normal speed.

Regardless, the Audacity program made it easy to let my kids in on that trivial secret.

WE'RE NOT DONE MAKING *TUX* THE BEST IT CAN BE, BUT THIS ISSUE COMES CLOSER THAN EVER TO MEETING ITS GOALS.

DON'T ESCAPE INKSCAPE

My kids also inspired the approach we took to our tutorial on how to get started with Inkscape. My 12-year-old daughter loves to draw cartoon characters on the computer. She uses GIMP, and she is quite good at using it. She knows how to handle layers, transparency, shading and many other GIMP features that even adults find difficult.

I heard her complaining that she had a hard time drawing the outline of her cartoon characters freehand and then filling the sections with color and layers of shad-

ing effects. Even with her Wacom drawing tablet, it was too easy to make mistakes. When she made mistakes, she had to zoom in and edit the mistakes pixel by pixel. Even then, she had a hard time making the drawing look right, because the cartoon character outlines were not perfect lines. They were too pixelated, and sometimes they "leaked" when she tried to color-fill them.

I introduced her to Inkscape, which is ideal for drawing perfect outlines and adjusting mistakes without having to go to the pixel level. She still isn't used to the

concept of Inkscape, which is why I figured that an introduction to Inkscape would make an ideal article for *TUX*. If we could publish an article that helps people understand why there are times when Inkscape is better for a drawing job than GIMP (or better as a starting point, after which you can use GIMP or some other graphics program to continue), and show them how to get started using it, then we've helped more people than just my daughter. Her case can't be unique. If my daughter needs to understand what Inkscape does and why she should use it

in certain cases, I'm sure there are lots of people who need to know that Inkscape is more appropriate for some tasks than other graphics or drawing programs.

GOOGLE THIS, EXTEND THAT

I use Google constantly, which is why I love having the Googlebar article in this issue of *TUX*. Unfortunately, the Googlebar add-in didn't work very well for me. I suspect it is because I'm using KDE 3.4.2 instead of 3.3.x, which is what most people probably have installed on their systems.

But then the author mentions that there is a similar plugin extension for the Mozilla Firefox browser. How do you install extensions for Firefox? It's easy—even easier than installing extensions for the e-mail client Mozilla Thunderbird. Because it is a bit more difficult to install extensions for Thunderbird, we include in this issue a tutorial on how to do exactly that—install extensions in Thunderbird.

As Editor in Chief, I get tons of press releases in my inbox. I get so many that they obscure the more urgent mail. I used to use a character-based program called

Mutt because it allowed me to write macros to move press releases from my inbox to a sub-sub-folder called (who'da thunk it?) "Press Releases" with one key-stroke combination. I hate having to drag and drop messages to folders or use the context menu to move messages to a folder. I would much rather press a couple of keys to move messages.

Enter my favorite extension for Thunderbird, TB Quick Move. This extension lets you highlight messages and then press a Ctrl-key sequence to move those messages into a predefined folder. It isn't as flexible as the Mutt approach, but it doesn't require macro programming like Mutt does, so the average user can set it up easily. I'm not the average user. I can program Mutt macros. Yet this extension does the job well enough that I now use Thunderbird for e-mail more often than I use Mutt.

I NEVER METADOT I DIDN'T LIKE

We have a terrific case study of Metadot, an open-source browser-based Web-authoring tool. I was skeptical about accepting this article, because it came from someone who represents Metadot. So I downloaded Metadot and used it to create a Web page of my own in order to see if it was worth publishing the article.

I discovered that it takes a geek to

install Metadot (or at least someone who is not afraid of the command line and can follow instructions well). But once it is installed, it is easy to turn the reins over to average users and let them create and maintain a Web site. So now I can vouch for the fact that Metadot is an excellent choice for the customers mentioned in the case study. In fact, we'd like to publish a "how to use Metadot to create and manage Web sites" article in the future. This article would not address installation. It would assume the package is already installed and ready for the average user to tackle.

MANGO PATHOLOGY

There are even more things to appreciate in this issue than I can list. Mango Parfait answers some interesting questions while ripping a new one for GNOME. I admit I'm no fan of GNOME, but Mango's hatred of GNOME seems almost pathological. I can't disagree with her reasons for hating GNOME, though, and I'm sure she exaggerates her opinion for the fun of it.

But that's not why I like this month's Mango Parfait. In this issue, she explains something I always wanted to know—how to create file associations in KDE the right way. It's a bit of a tedious process, but it is one well worth learn-

ing. For all its other faults, I admit GNOME actually makes this task easier (although, as Mango points out, GNOME doesn't make use of the end result as well as KDE does).

THE BOTTOM LINE

The moral to this story is that I'm proud to see *TUX* improving with each issue. Don't take this as shameful self-promotion. My part in the process is just a little piece in the puzzle. My job is to listen to you readers in order to set the tone and shape of *TUX* to suit your needs. I'm just a conduit. You are the leaders. Of course, the talented authors are the ones who make the chosen articles compelling. And the hard-working team of folks at SSC must know magic, because I can't imagine how they manage to make *TUX* such a magnificent work of art each month.

Keep talking, and we'll do our best to listen. When the competition wakes up and realizes that there are new Linux users out there who need a magazine like *TUX*, we will no longer be the *only* magazine for new Linux users. But with your help, we'll always be the best.■

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

LETTERS

More GNOME Coverage

I read the latest *TUX* today, and somebody asked the same question as me. Why not more GNOME coverage? Your response was that KDE is the preference of most new users. What distro are they using? Because in another breath, you heartily recommend Fedora, which uses GNOME as its standard desktop. And that's not even mentioning the popularity of Ubuntu.

--
Robert Holmes

KDE reaches the broadest audience, therefore TUX spends more time on KDE than GNOME. Despite her disrespectful method of doing so, Mango is correct in quoting my reference to Evans Data Corp. research in this issue. The number of Linux developers using KDE is increasing. The number of Linux developers using GNOME is shrinking. This is a trend that has persisted over at least the past 18 months. Linux developers are more "geeky" than Linux desktop users, and they are more likely to use GNOME than average Linux desktop users. So if this trend exists in the developer segment, it is difficult to imagine that "non-geeky" Linux desktop users aren't following the same trend. Indeed, it is likely that the trend is even more pronounced among Linux desktop users.

Both Fedora and Ubuntu support KDE (there is even a special Ubuntu KDE distro called Kubuntu). Fedora doesn't support it well—yet, but the places where Fedora falls down in KDE probably won't matter to most desktop users.

We do not ignore GNOME, but the only way GNOME will become the primary focus for TUX is if GNOME ever has more users than KDE. If you like GNOME, use it. You don't have to follow Mango's advice or take her opinions to heart. But TUX will still focus on addressing the majority of readers.—ED.

OpenOffice.org

Although I am very glad OpenOffice.org is around, free and improving, there are many things it needs to be close to Microsoft Office capability. For example, In OpenOffice.org Calc there is an open issue to include multiple x ranges in a single plot. In other words, a way to plot different x,y sets of data on the same plot that Excel allows currently, and has for a while, but Calc doesn't. Also in Impress, if I want to include more than one graphic image to be inserted (select more than one at the same time) it does not allow it, but that is something Powerpoint has allowed for many years. It is a wonderful thing to be able to open most Microsoft Office files in OpenOffice.org, but many features are still lost in

the translation. I'm sure the new 2.0 version may help in some of these areas, but I'm also sure others will wait until later. I think it would be good for *TUX* to include both the capabilities and limitations in the articles on OpenOffice.org, but in any case, I think *TUX* is great! Please keep up the good work.

--
Richard Sims

Don't Be Afraid of the Terminal Window

I love this magazine. It reminds me that using Linux isn't just about figuring out how to do everything I did in Windoze...but also about all the additional things I can accomplish with Linux.

I have been surprised by the extent to which the magazine has shied away from using the terminal window. I think it's a disservice to the new user (like myself—I've been using Debian for about two months), because it's frequently the easiest way to do something, and I don't think we need to be scared of the term window. Unfortunately, when I'm running from site to site, trying to figure out how to fix a problem I'm having, I end up rotely copying commands from a tutorial without any understanding of what they mean or what I just did. Although this method (surprisingly enough) works for me quite

frequently, I hardly learn from it because I don't understand what I'm doing.

Most of us new Linux users were pretty experienced Windows users—we could make Windows work for us. It's disconcerting to be set down in a new environment where things are dumbed down for us. I haven't found a quick tutorial/reference for Bash that I like—I bet *TUX* could do something like that: "50 Commands Every Linux User Ought to Know". Besides, it's standard for all distributions. When it comes down to it, it's frequently a lot harder to figure out how to do something graphically than it is to do it with a one-word command. I don't think *TUX* should shy away from the simple way of doing things, even if it means that the answer is not a point-and-click answer.

--
Sydney Nash

TUX approaches tasks this way. If there is a point-and-click method to accomplish something, that's the approach we take. If there is no other way to accomplish something than to go to the command line, we include instructions for the command line. In addition, we are more likely to resort to a command-line instruction if it does not require that the user log in as root. At this point, however, Linux has matured to where it is pretty easy to do almost everything with point and click.

Our intended audience is not unlike a Windows desktop user audience. Windows users rarely (if ever) do anything at a command prompt. Many people outside the TUX readership might benefit from something like "50 Commands..." That isn't our intended audience, however.—ED.

TUX in German?

Are there any plans for providing *TUX* magazine localised, especially in the German language? I was just going to test my translation skills on a randomly chosen *TUX* magazine article.

--
Rene Schmidt

If TUX readership keeps growing at the current rate, we'll eventually look at translating it into different languages.—ED.

Stuck on Dial-up

I love what you're doing with *TUX*. Keep up the excellent job! I have a request. It seems that everyone believes that broadband is everywhere—it isn't. I'm still stuck on dial-up, and I'm sure a lot of your readers are too. Downloading packages and apt updates are a bear. How about a winmodem (slmodem) howto and a coping with dial-up article?

--
Dennis Sorenson

Sounds like a good idea.—ED.

More Help with MEPIS

The article by Roy Brander of Calgary [June 2005 issue of *TUX*] is excellent and very informative; however, I would like to see similar detailed instructions on how to install MEPIS 3.3 Simply on a separate second hard disk (not touching my Win XP, which is on hard disk #1).

There was an article about dual-booting by Mango a few months ago, but it was too vague and not detailed enough. For instance, I don't know where GRUB will be installed, will it be on hard disk #1 (Win XP) or on hard disk #2 (MEPIS 3.3)?

I especially bought and installed a second hard disk (40GB) for the purpose of installing MEPIS 3.3 separately, away from Win XP, but I'm still scared that I will loose my Win-XP in the process—and this I want to avoid at all costs. Your help will be very much appreciated.

--
Charles Keller

See answer to letter below.—ED.

More on Multiple Distros

TUX is terrific! Let's hope it's here to stay. After reading issue 5 [August 2005], I have to agree with your reader, John [see the "Multiple Distros?" letter on page 15] that there is a massive lack of information regarding the installation of multiple Linux distros on a single machine. I

have Red Hat 9 co-existing with Fedora 4—now, but only after mishaps, mayhem and misery (and I’m a Networks Engineer).

The great bulk of the information out there is geared toward Linux and Windows co-existing, with almost no guidance for multiple open-source installations. This seems to me a massive oversight on the part of the Linux community as a whole. Why should users choose between distributions, when there are so many flavours of Linux to sample?

The falling prices of large-capacity hard drives provides users ample room to add more than one distro, so why hasn’t the Linux community jumped on the idea of having one, or two or ten different types of Linux on a single machine?

Although there can be only four primary partitions, the number of logical partitions has no such limitations, and a Linux advantage is that it can be booted from logical partitions (where Windows can’t). This being the case, where’s the how-tos for a Linux-*only* multiboot? The documentation included in each distro makes scant mention at best.

Nicholas Petreley, in his “An Evolution of Linux Distros” article [also August 2005], narrows the choice down to three flavours of Linux. What’s the harm in showing how to install all three? Surely many Linux users would be eager to try such

options were they widely known and easily available. *TUX* should take the initiative and feature the process, highlighting the partition managers employed and their attributes.

PS: To get a *free* copy of the commercial SUSE distro, e-mail linux_community@novell.com.

--
Nizar

We’ll pass this question on to Mango. If she can’t handle the question without writing an article-length piece, we’ll do an article on it.—ED.

Page Numbers?

First, I like *TUX* magazine very much—very informative and right to the point. I like your format (landscape instead of portrait). It fits my screen much better. However, I would like to submit two items:

1) If I want to print an article from *TUX* magazine, for instance “How to install MEPIS 3.3 Simply”, pages 24–29, I have to ask for pages 25–30. Why? I am using an HP printer HP-890C.

2) Would it be possible to identify the page numbers as: <http://www.Tuxmagazine.com> page 24 - June 05 (or issue 3-Jun.05)?

You are doing an excellent job, congratulations!

--
Charles Keller

Acrobat considers the cover to be page 1. TUX considers the table of contents to be page 1. That’s what causes the difference.—ED.

Crystal-Report-Alike

I haven’t had chance to try this yet, but <http://datavision.sourceforge.net/index.html> looks promising.

As for the magazine, I like it a lot, except for the Mango Parfait section. I really, really hate her style, read it the first time and didn’t like it, got so hacked off a short way into it the second time that I couldn’t be bothered to read the rest of it, and I refuse to read it now. Now, I’m not suggesting that you pull her column—after all, some readers doubtless like it as it is. But given the nature of the medium, how about providing two versions of that section, one with Ms Parfait’s humour included, one without? Should be easy enough to do. It’s not that I’m averse to humour in computing literature—far from it, just that Ms Parfait’s I find particularly unfunny and just plain irritating.

--
Esme

Kanotix

I am glad to see a magazine for Linux newbies like me! I had tried Corel Linux years ago, but I gave up because of problems getting hardware (even my printer) to work.

A couple of months ago, an article at <http://www.arrl.org> (the Web site of the largest Amateur Radio organization in the USA) about Harve's Hamshack Hack (a remaster of the Knopptx live CD aimed specifically at Ham Radio Operators) got me thinking about Linux again. Since Harv recommends that you do not install his "hacked" version of Knoppix to hard drive, I started looking at other distributions of Linux.

After trying Debian Sarge (had major printing and other hardware problems), Mandrake 10.1 (install had major problems with hardware detection), aLinux (no automatic hardware detection and I never got to a desktop), Knoppix (a few minor problems, easily fixed with a little research and by reading the Knoppix forums), I discovered Kanotix. Kanotix is a remaster of Knoppix in which the few minor problems I had with Knoppix have been fixed. It is also closer to Debian SID (not totally sure what that means) and is meant to be used either as a live CD or installed to hard drive (Knoppix is meant to be a live CD and is not meant to be installed to hard drive according to its author).

I believe that Kanotix is one of the best distributions for a beginner like me, as it just simply works without any of the problems I had with

other distributions. I did try Kubuntu (I like KDE much better than GNOME) and found that it limits me too much to its setup. I realize that one should log in as root only when absolutely necessary in Linux, but I want that option available for the few things I might need it for. In Kanotix, I have File Manager as Superuser, and a Root Terminal that allows me to do most of what I need root access to do. Programs like Kpackage (and some others) ask me for the root password. The absence of these tools in Kubuntu makes it unsuitable for me.

I would like to see *TUX* magazine do a review of Kanotix and some of the other live CD distributions of Linux. I think this would be of great use to those considering trying Linux. The live CD distributions seem to be aimed more at those of us who want to run Linux on a standalone PC, or a small home network. Thanks for a great and very useful magazine!

--
Martin

Go *TUX*!

It took me some time but I finally found out how to send a letter to the editor! I think this address should be very prominently displayed on the cover pages of *TUX*.

I often read *TUX* while logged onto Windows

using Adobe (Oh horror! But there are good reasons for this in that I do use MS Office for compatibility with others). When the *TUX* file is clicked to open, it quite usefully comes up full screen. However, there are only three Adobe commands that are really necessary and these aren't visible full screen:

Bring up the tool bar: F8

Bring up the Adobe window: Ctrl-L

Change size: Ctrl-+/-

Reading *TUX* is about the only time that I use Adobe full screen, and so I wish there was some way to remind me. I do forget those commands.

I've said it elsewhere (and voted!), but may I repeat how much I like *TUX*? I have used Linux since the early 1990s when my computer was so advanced that Red Hat gave up, and thus I actually started with Slackware, which was then more up to date. I have a full set of *Linux Journals*, but I guess I can still be described as an amateur, not a professional, and *TUX* suits me fine. Keep up the good work!

--
James Silverton

On Value

As a professional in the quality field and a certified Quality Engineer I have to take exception to Scott Bicknell's reply to John Knight's "The Last Word" article [see Letters, August 2005, page 13].

The perception of quality is inherently tied to the concept of VALUE, and this is what I believe John was trying to point out in the original article.

The "godfather" of quality, Juran, defines quality as "fitness for intended use".

The American Society for Quality defines quality as "a subjective term for which each person has his or her own definition. In technical usage, quality can have two meanings, 1) the characteristics of a product or service that bear on its ability to satisfy stated or implied needs, and 2) a product or service free from deficiencies."

Value also has many definitions and Webster notes it as "1) an amount, as of goods, services, or money, considered to be a fair and suitable equivalent for something else; a fair price or return, 2) monetary or material worth, and 3) worth in usefulness or importance to the possessor."

The concept of value has many sides. Does the product meet my needs? Does it meet my expectations for reliability? How much time will it take

to maintain? Can I find support for this product? Can I interact with others that might not be using the same product?

Sure, we can expect open-source software to be free of defects and avoid wandering off into the land of blue screens and re-boots, but we shouldn't be confusing that with all the bells and whistles that come with a "premium" commercial product.

A spanking-new BMW may have more options than a Dodge Neon, and it may arguably be built to a higher standard but at 3–4 times the cost of the alternative, the real question is one of VALUE. If offered both of these vehicles for free, which one most of us would be driving away in is pretty clear. Once you have to start reaching into your pocket, it's all about VALUE. Scott Bicknell seems to be one of those people that believes when handed a Neon we should be complaining that we didn't get the BMW.

It seems that he did not completely miss the point of the original article, but the arguments he presents are ones of features and not necessarily quality. To expect commercial software and free software to run side by side, feature for feature is absurd.

If you want a fine French meal you shouldn't be in the McDonald's drive-thru, and you can expect to pay accordingly.

--
Mike Meyer

TUX in .txt?

Your magazine is excellent, so I want to archive copies of it. At times, I would like to print out pages, as well. Both operations cause me problems. I suppose it is too much to ask that you create a .txt version and make it available. As much as I like the .pdf files, they are bulky (bzip2 is no help) and contain a lot of eye candy that I don't find necessary for reference materials. BTW, you might tell your readership how you actually assemble TUX. Do you use any word processors? LaTeX or some flavor thereof? That would be interesting.

--
Lawrence Barnes

You can convert TUX to text yourself. There are utilities out there that will convert PDF to text, PDF to HTML and so on. I can't tell you where to get these utilities without knowing which distribution you're using. I'm sure you can find them if you poke around your distro's package resources. The command for converting PDF to text is `pdf to text` You may not like the results you get, depending on the target format, but it does the job.—ED.

Yay Linspire!

Just finished reading through issue 5 and really enjoyed Ricky Freedlander's article "Linspire Is Filled with Linspiration"—so much so, that I downloaded the Linspire Live CD and am using it

right now! I'm impressed!

I have to agree with Rick. For \$49.95 (or \$19.95 for the budget-minded), Linspire's CNR makes a lot of sense! I've wrestled with Mandrake's RPMs long enough. Until Auto-Package is adopted, there is no real reliable way for installing and updating software for newbies like myself. CNR takes care of it all. I'm going to adopt Linspire and pay the subscription fee. It's a small sum when you think of all the time newbies waste in trying to compile programs, finding file dependencies and so on.

My only question is, will Linspire play DVD movies out of the box? Trying to find PLFs for DVD replay has been the biggest hassle with Linux. I've had to debug Mandrake to get it back up and running (again, due to my not understanding software installation outside of the RPM arena) and lost those files. ARRRGGGHHH!

Well, yes, Linspire solves this, too. For only \$9.95 (with a Gold Subscription) you can download The Linspire DVD player (looks like Xine). From their catalog: "The Linspire DVD player is a software multimedia player that includes legal, licensed commercial-quality codecs and auto-detection of DVDs to enhance the DVD playback experience under Linspire 4.5 and higher." Linspire, here I come! CNR is the best solution. (BTW, the spell-checker that

comes with Linspire's Internet browser is the best I've seen!)

--
Mark Szorady

Tomboy

Yes, dear Editor, you can assure Shannon Baker that Tomboy can be used under KDE too [see the July 2005 issue]. As a result of his article I dug into my Debian repositories and found it, d'loaded it and later found it installed—what a stunning service Debian's apt-get is—in my KDE Utilities menu. I then noticed it was in the Panel as well.

It was in use from within three minutes of starting it; it would have been sooner, but I had to go to the Tomboy site to be told that it was run from the Panel icon <blush>.

Excellent mag, sir. I find it useful and readable...and I think I'm in love with Ms Parfait <further blushing ensues>.

--
ChrisM

Pronunciation Tips?

I'm a Windows expert learning Linux and your magazine is a great help. I print it out, keep it on my PC, and have subscribed to the RSS feed. *But*, if you want newbies like me to talk about Linux, how about a little help with the pronun-

ciation? Xine? GNOME? GNU? SUSE? Maybe a glossary with pronunciation key on the site and some inline help? Also, your URL should be a more prominent part of the magazine for those who have received it indirectly. Keep up the great work.

--
len

I don't worry about how to pronounce things. I pronounce Xine, GNOME, GNU and SUSE "gurgle-blottom". Nobody knows what I'm talking about either way.—ED.

Basic Programming?

Perhaps my hours of Web searching have missed this, but is there a SIMPLE programming environment for Linux? As a hobbyist in a Windows environment you usually arrive at Microsoft's Visual Basic for simple and "easy" programming. It is easier to learn for older brains like mine than any of the flavours of C—especially when they taught Pascal, Basic and machine-level coding when I went through school.

Is there a development environment out there for Linux that lets a hobbyist plunk down some graphical controls, string together some glue code and create a "recipe indexer"? For all my searching, all I have found are very powerful environments for the very knowledgeable. Perhaps you at TUX might have the answer—or

at least could confirm that we, the most BASIC of programmers, are unable to join in the Linux fun.

--

Alan

There are several such programs. We'll consider doing an article covering some of them.—ED.

Help with Drivers?

What is the best Linux distribution? I've been dealing with Linux since I swore off Microsoft (about the time windoz me came out). I'll switch to a Mac before I come back to Windows. I really like the concept of open-source software, and wish I was smart enough to give something back to the Linux community.

I've tried several distributions over the past several years, but have yet to find one that is perfect for me. I've installed Red Hat, SUSE, Xandros and Fedora core 3.

Each one seems to have some quirks with it. Red Hat seemed to work the best, but since they've decided not to support the desktop, I had to move to another distribution.

SUSE is pretty good, but has several issues. The main ones that I've found: the hotplug feature does not work when I plug a device in to a USB port, and sometime causes a reboot of the sys-

tem; I am unable to use my Kingston Flash drive with it; the system freezes up (I thought that this feature was supposed to be unique to Windows) when I try to rip a CD onto my hard drive using my NEC DVD drive; my sound Blaster Live! 24-bit PCI sound card refuses to work (I had to install an old Yamaha card in the system to get sound); the scanner on my HP psc-750 all-in-one printer is not recognized, although the printer works fine (I am able to use the scanner by installing the HP software using the WINE application). Sometimes the system seems to hang up during boot up, during the hardware-detection phase. I have version 9.2 installed on my computer (Athlon 3000+ 64-bit processor with 1G of DDR333 RAM, 120G IDE hard drive, ATI Radeon 9200 pro graphics card, NEC ND-3500 AG 16X DVD-/+/R/RW dual-layer drive). SUSE seems to be pretty stable, but is not that user-friendly. They do a very good job of making updates available on-line!

I read an article about Xandros, which sounded pretty good, so decided that I'd like to try that. I had a friend with a fast Internet connection download the OCD version and burn me a CD. I installed it on my machine, and was so impressed after a month that I purchased the Deluxe desktop version (version 3). It didn't have the flexibility of SUSE, but was very easy to use (the file manager is one of the best I've ever seen). When I tried to rip a CD to my hard drive,

however, my system froze up. Also, when I tried to install the firewall, I was unable to send or receive e-mail or even get to my ISP (even with all of the available services enabled—very secure indeed, but totally unusable). Also, my dial-up connection was disconnected periodically, even during downloads (I thought this might be the fault of my US robotics model 5610B modem, but I never get disconnected during the middle of download when I am using the SUSE distribution). The thing that caused me to quit using Xandros was when my system became unbootable after I installed their service pack 2 upgrade (which I had to have downloaded and burned to a CD by a friend—my dial-up connection was unable to handle a 300M download). Xandros has a very good support forum, but I hate to have to fight every piece of hardware or feature I try to use!

I recently installed Fedora Core 3. The desktop looks intriguing. However, the hardware detection leaves something to be desired: neither my modem nor my printer were detected during installation. Also, when I shut the system down, the computer doesn't power down (even though a message is printed on the screen saying SYSTEM POWER OFF).

I still consider myself a Linux newbie, even though I have lots of experience with the OS. I have a pretty good understanding of the filesystem, but

lack an understanding of device drivers or how to install them.

I would appreciate any guidance you can provide me. I really love your magazine.

--
Dick Stubbs

We wish there was a simple answer to the question "Which distro is best?" It depends on what you like, what you need, and what you're willing to pay. We reviewed Linspire in the last issue. We'll try to keep reviewing distros so you can pick the one that suits you best.—ED.

Help with Printers?

I appreciate *TUX* and find it very useful. I've played around with various Linux distributions over the years but have never been able to make a break from Windows, mainly because of printing concerns (though also the need to run some indispensable software). Of all the things that have given me grief in Linux, printing is the main one. I know I can check lists of suitable or semi-suitable printers, but many are quite old models and haven't been available for years. I also found that even with printers that are supposed to work well under Linux, that often wasn't quite the case in that some features really didn't perform well. I even found some printers where margins would be consistently off by quite a bit in such a way that I couldn't correct the situation easily. It's the ease-of-use

issues in everyday tasks (like printing) that I think need work.

So anyway, I wonder if *TUX* could devote some energy to addressing printing and printers under Linux?

--
John Stafford

We've been planning to cover printer compatibility and similar issues for some time now. We'll get to it as soon as we can.—ED.

Stop Comparing

Good magazine, easy read. Thanks for making it free! However, can't Linux stand on its own? I am tired of the constant comparisons and declarations why this or that Linux tool is better than the counterpart on Windows. As a user of computers from the PDP days, and a new Linux (Kubuntu 5.04) user, I would rather like to see articles describing the tools and their uses without comparisons. It is a great experience and I am enjoying it. In a (totally non-scientific) test, my 12-year-old niece moved sort of seamlessly from Windows XP to OS X 10.4 to Kubuntu without major pain. Her only problem was with the G5 mouse.

But make your magazine an oasis from the fluff out there. You guys have something good here: other Linux mags assume you have all the necessary experience. You guys break it down.

When will there be a user help forum as well? Please keep all the political and religious stuff out of what is, I hope, going to be the best new-user Linux mag out there.

--
Rod Spode IV

A user help form is a good idea for us to toss around. Meanwhile, you can send questions to Mango Parfait at mango@tuxmagazine.com.—ED.

Go Mango!

I would just like to give a vote of confidence to Mango Parfait. I find her responses witty and entertaining as well as informative. I hope she continues to provide her offbeat humor to the magazine.

--
Christopher

Erratum

Ryan Paul's photo was incorrect in issue 5. See below for the correct photo.■





Q&A with Mango Parfait

Mango explains how to create file associations in GNOME, how to initialize a new Linux install and how to install new packages in Fedora—all while dropping subtle hints about her opinion of GNOME and Emacs. **MANGO PARFAIT**

Thank you again for your questions. I did not get as many questions this month as I did last month. Maybe you are on vacation? If you come home and read this, send me a question.

I am glad my almost-boyfriend Otaku likes KDE. He does not like the same manga and anime as me, but at least we are compatible on the desktop. I think he has a crush on Witch Hunter Robin because he has her picture for KDE wallpaper. He thinks I am not jealous because Witch Hunter Robin is an anime character. He forgets I am an anime character too. I think I am prettier than Robin. She is just more realistic.

My doofus-in-chief has access to Evans Data Corporation research data. He says there is a trend. More and more Linux developers use KDE and less and less are using GNOME. Does this not tell you something? There are more KDE users than GNOME users. KDE is growing. GNOME is shrinking. Yet I get more questions about how to do things in

GNOME than questions on how to do things in KDE. I wonder what that means? Hint: this is a rhetorical question.

Hint to GNOME developers: some of GNOME is okay, but most of it works like you hate users. Some of GNOME runs like you think users are too stupid to wipe themselves. What do you do for these users? You do not make GNOME easy. You just take away their toilet paper and force users to wipe themselves your way. Some of GNOME runs like you want users to suffer. The file open and save dialog is worse than bamboo shoots under fingernails. Better to call Nautilus an attack from space invaders than a spacial file manager. Here is my advice. Make your monkey-brain environment a configuration option if *you* want to keep using GNOME *your* way. The rest of us are not monkeys. Give us a default desktop for humans. If you keep having no clue, less and less people will use GNOME, and the only GNOME users will be monkey-brain GNOME developers.

Q Dear Mango, I am using SUSE 9.2 with the GNOME interface for my office work. I edit and create lots of VB Script files for Windows server management and other tasks. How can I associate the .vbs extension to an edit program?—*Anand*

A I do not use SUSE 9.2. I use SUSE 9.3. If these instructions do not work for you, upgrade to SUSE 9.3. It may not be convenient for you, but it will sure save me a lot of trouble. But there should be very few differences in these instructions, if any, even if you are a reader who is not using SUSE at all. All you need to do is run a recent version of GNOME. Here is better advice. Ditch GNOME and use KDE. You will thank me.

To answer your question, open up a folder where you have stored some of your scripts. Right-click on one of the icons for your .vbs script and choose Open with Other Application from the pop-up menu. You will see a list of applications like the one shown in Figure 1.

You can select an editor from this list. You can select the default text editor (which is what the figure shows). You can select another editor from the list. If you do not see your favorite editor in the list, you can

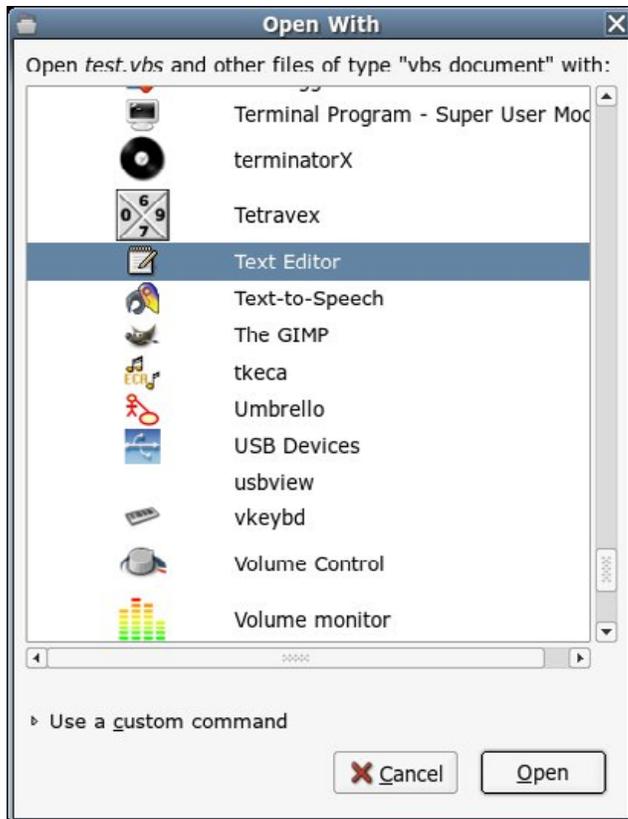


Figure 1. Select a default application for this file.

click on Use a custom command to set your favorite editor as the default application. Then Click Open.

From now on, GNOME will open your .vbs files with your text editor when you double-click on the icons. Maybe it won't work the first time you click on the same icon you used to make this setting. GNOME is sometimes slow-witted when it comes to recognizing a change you just made. You may have to refresh the folder

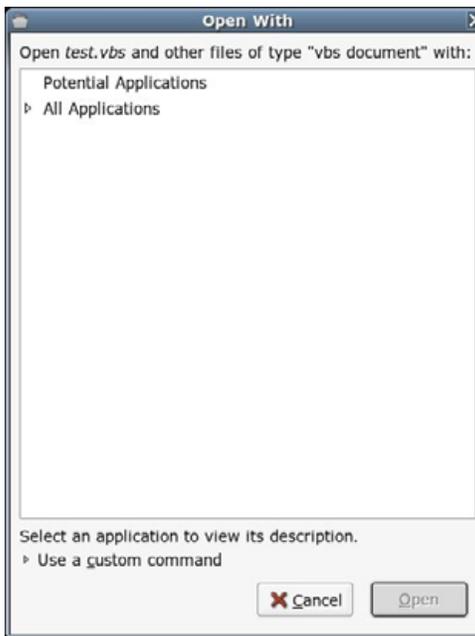


Figure 2. Usability-Challenged Dialog

(Ctrl-R or View→Reload from the menu) before it understands that you set a default editor for this file.

You can add other editors to the list the same way. Right-click on the icon again and select Open with Other Application. This time you should see a window like the one shown in Figure 2. Here you have to click on All Applications to see a list of applications. Last time it listed all applications automatically. Why is it different now? Because the GNOME designers work very hard at torturing users with inconsistency and confused designs, and they are very talented in these areas. Anyway, click on All Applications and pick another editor. I picked X Emacs, the editor of choice for masochists.

CHANGING THE DEFAULT EDITOR

Now you can choose between two editors as the default editor for .vbs files. Right-click on the icon and select Properties from the pop-up menu. You should see a window like the one shown in Figure 3.

Now is a good time to change the default icon for .vbs files so it is easy to find them in a folder. But I am assured that you can figure out how to do this, so I will go on about associating editors. Click on the Open With tab to see some-

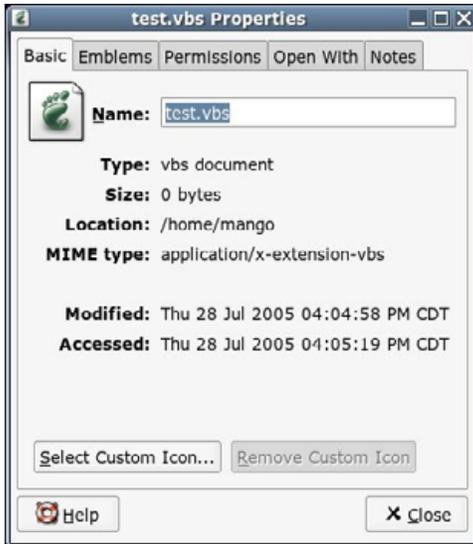


Figure 3. Properties Dialog

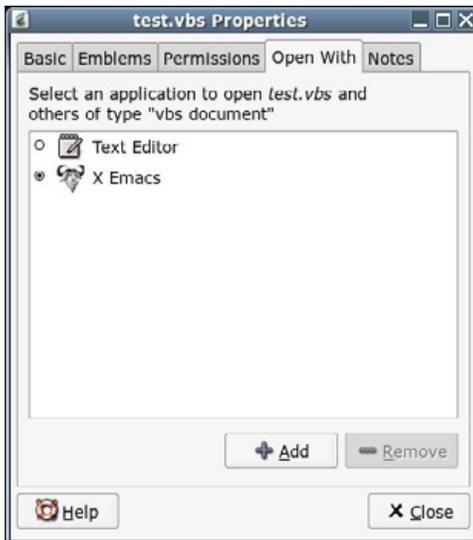


Figure 4. Setting a Different Default Editor

thing like what you see in Figure 4. Now click on the little dot next to the editor you want to be the default editor. I advise you to try X Emacs as the default editor for .vbs files. You can now enjoy weeks of pain and suffering while you memorize finger-breaking Ctrl-key sequences. Now, click the Close button. Press Ctrl-R or select View→Reload from the menu so that GNOME will catch up with what you are thinking.

HOW TO DO THIS IN KDE

You can take a quick-and-dirty approach to get the same results in KDE, but here is the best way to associate files in KDE. Open the KDE Control Center. When you see the window, click on KDE Components in the list on the left. Then click on File Associations in the list on the left. You should see something like what you see in Figure 5.

Click Add... and a little dialog should pop up. Select Text from the group list, and then type in vbs as the file type. Click OK. Now your Control Center window should look like the one shown in Figure 7.

You should see a dialog like what you see in Figure 7, except Figure 7 has everything completed already. Yours will be blank until you follow the next steps.

Click on the Add button in the Filename patterns section. Type in *.vbs. Click on the Add button in the

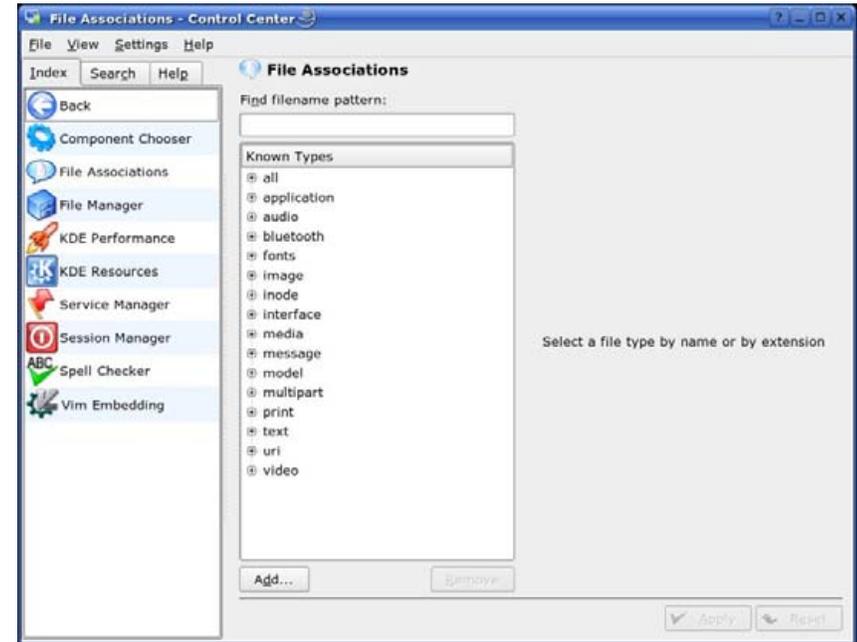


Figure 5. Setting File Associations in KDE

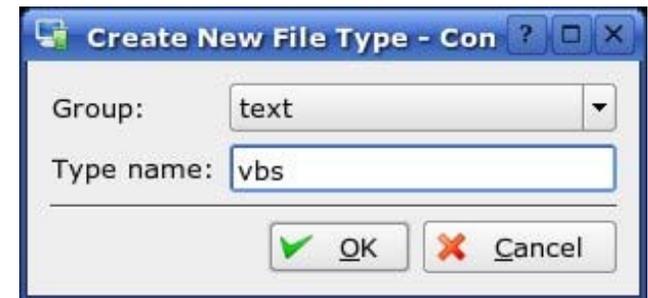


Figure 6. Defining the .vbs File Type

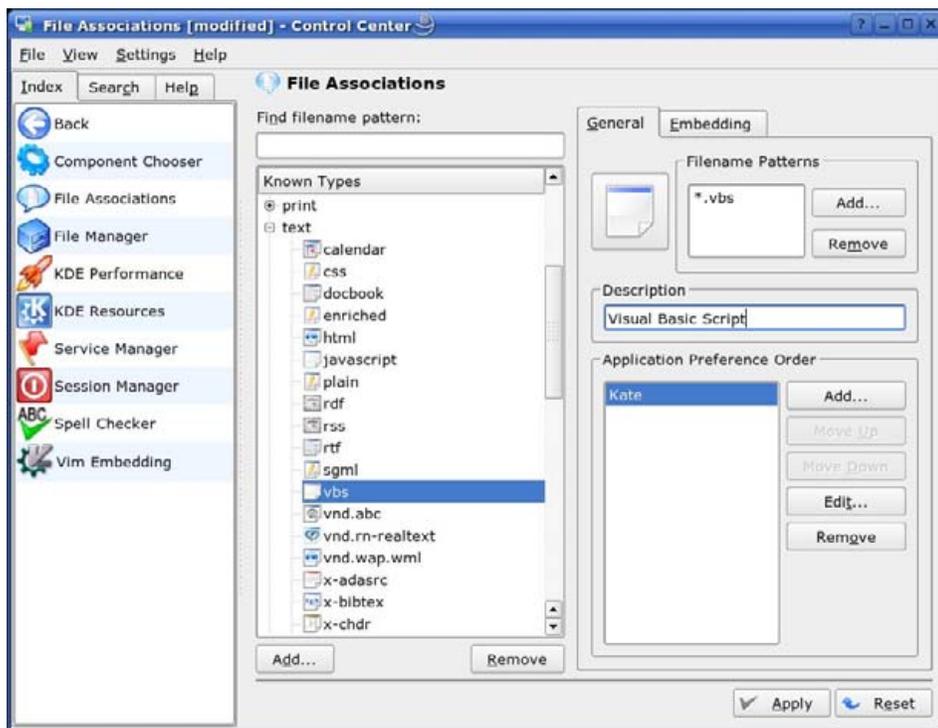


Figure 7. Defining an Application for Text/.vbs

Application preference order section. You should see a dialog like the one shown in Figure 8.

I selected the most excellent Kate editor, as you can see from the picture. Click the OK button. The dialog should now look like the completed one above (Figure 7). Click Apply and then close the Control

Center.

Now whenever you click on a .vbs file, it will open Kate as the default editor. This approach may seem more complicated, but it has benefits you can't get from GNOME. When you use KDE and create the .vbs file type, you can associate other actions with the file besides what happens when

you click on the icon. You can customize KDE so that you can right-click on a .vbs file and choose Actions...→Compile, which launches a compiler specifically for Visual Basic Script. This option will not show up for other types of files. You cannot do the same thing in GNOME. I can explain how to do all this in KDE. Maybe I will explain in a future issue.

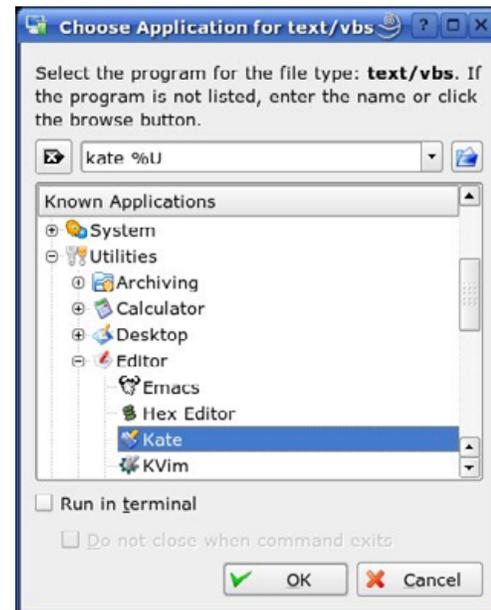


Figure 8. Choosing Kate as the Default Editor

Q Being a novice to Linux, I am wondering exactly what you do or recommend doing after installing Linux. I believe [I recall] reading that one of the first things to do is set up the locate command by running some other command to create the database it will use to find something you're looking for.—+J

A I like your name +J. You do not tell me what J is for, but it gives me an

idea. I think of myself as Beautiful Mango, so you inspire me to change my name to +BM. Do you like? Maybe someday I will do that.

Okay I will answer your question. For readers who do not know about locate, here is what it is and how it works. This is a command that tells you where you can find a file or directory. You can type `locate prince_of_tennis.avi` to find that file. The locate command will not find only that file, it will find everything that matches this string. This can give you too much information if you are not careful. If you type `locate share`, it will find too many files because it will match and find every file and directory located in the `/usr/share` directory. There are other ways to find a file or directory, but locate is faster than most other ways because it does not really search your hard disk. It takes a picture of your files and directories and keeps the picture in a database. You run locate and it searches the database, not the files.

There is one problem with locate. If you change files or install new programs, locate will not find the new directories and files until you update the locate database. You may have other databases on your system that make finding things easier and faster, and they need to be updated on a repeated basis. It depends

on which distribution of Linux you are using.

Here is the easy way to set up all the databases in your distribution of Linux. Do not turn off your computer for a couple of days. See that word daily in the command below I provide for geeks? That means your computer will run this command every day at a certain time. The exact time depends on many things, but don't worry about the exact time. Just let your computer run for a day or two and every daily update will happen automatically.

Here is the hard way to update the database manually (this exact command works on most Linux distributions but may not work on yours). Here is what you need to do:

```
$ su -
<enter your root password>
# /etc/cron.daily/slocate &
```

I like the easy way better. It uses more electricity. So what? I leave my workstation on all the time anyway.

Q Linux needs to be easier for newbies to use at a basic level. For example, I have a technical background, am A+ certified, am of above-average intelligence (not brilliant) and I have a hard time with

Linux. I wonder how the average user is ever going to cope with Linux. My question: how do I install a program that I have downloaded onto Fedora Core 3?
—Tom Cranston, a.k.a. borgward

A Your problem is not a Linux problem. It is a Fedora problem. The default install of Fedora Core makes it the most pitiful distribution for installing packages. Most Linux users who use other Linux distributions do not find it hard to install new programs.

Other distributions have friendly installer programs like Kpackage or Synaptic. Fedora gives you only a menu selection called Add/Remove Applications. This will help you install programs the Fedora people think you should be able to install. The only way to use this program to install a package the Fedora people did *not* think you should install is to perform an ancient Japanese mystic ritual. You will need the organs of various exotic lizards, a set of chopsticks and a rare brand of pantyhose. I am guessing you do not want to go that way.

You can download Fedora programs and install them, like you say, but that is the worst way to install Fedora programs. Do this only if you cannot install the program you want any other way. I will tell you more later.

INSTALLING SYNAPTIC

There are better ways to install Fedora programs. Here is my favorite. The bad part is you must open a terminal window or console and log in as root. The good part is you need to do this only one time. It is needed only to get started. This is what you need to do. I add one extra command, `yum update`, because it is better to start with a system you know is updated to the latest software:

```
$ su -
<enter your root password>
# yum update
# yum install apt synaptic
```

Each time you run `yum` to update or install, it will do some things and then ask you “Is this ok?” Type `y` and press Enter. When `yum` is finished with the `install apt synaptic` command, exit the terminal window or console and get back to your graphical desktop.

The Fedora developers are GNOME groupies [*I think the word she is going for is more like “toadies”—Ed.*] and do not like KDE. The Fedora version of KDE is stinky, and some KDE functions do not even work. It is not a surprise that Fedora adds a way to launch Synaptic in GNOME but does not add a way to start Synaptic in KDE. Here is how to create a desktop icon to launch Synaptic.

CREATE SYNAPTIC LAUNCHER ICON

Right-click on an empty space on your KDE desktop and select Create New→Link to Application from the pop-up menu. Now fill in the first screen so that it looks like Figure 9. You do not have to change the icon to look like mine.

Click on the Application tab and fill in the information so that it looks like what you see in Figure 10.

Click on the Advanced Options button. A dialog window appears. Check the Run as different user box. Type `root` as the user name, so that the dialog looks like Figure 11.

Click OK, and then OK again.

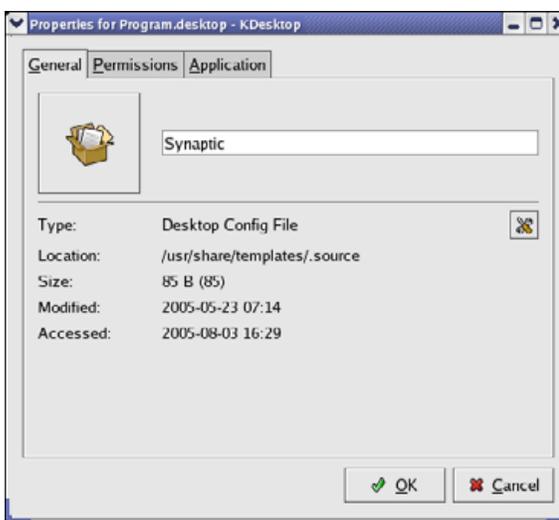


Figure 9. Starting to Create Your Own Synaptic Launcher

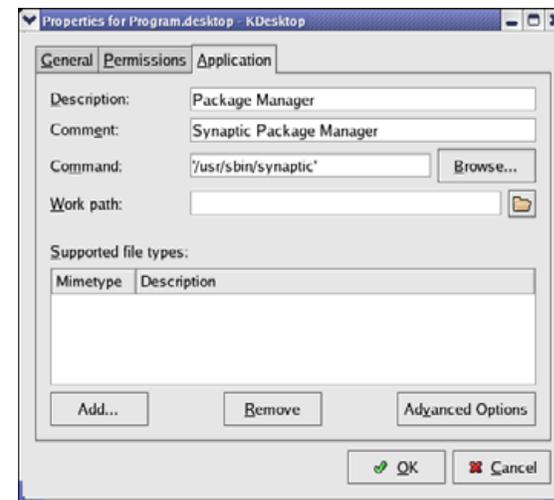


Figure 10. Define how the application launches.

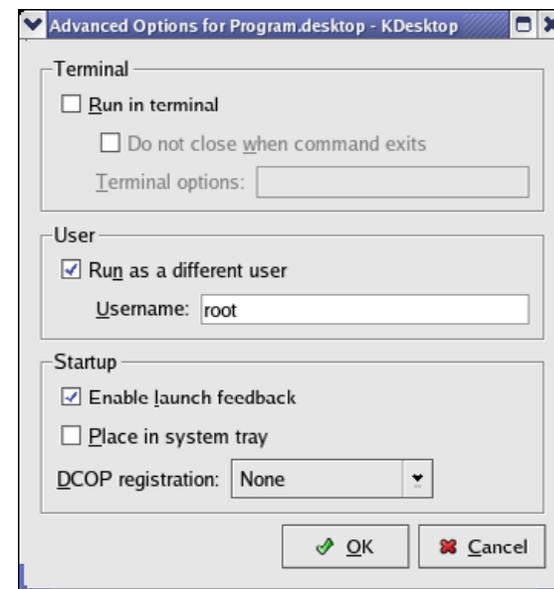


Figure 11. Run this application as root.

RUN SYNAPTIC

Double-click your new Synaptic icon to start the Synaptic package manager. You are not done. Synaptic is a better package manager than the Fedora package manager, but right now it still knows only about the same Fedora programs you get when you run the Fedora package manager. It does not help you to stop here. You need to add at least one good repository (a place where you can get other Fedora packages) to Synaptic.

ADD A NEW REPOSITORY

Here is how to add my favorite repository, called dag.

Run Synaptic and type the root password when you are asked for it. Then click Settings→Repositories from the main menu. You will see a dialog box like the one in Figure 12. Click the New button, and then fill in the empty fields like I did. You may see that I have already added a dag repository for Fedora Core 4, because I run Fedora Core 4, not 3, which is what you use. You probably do not want to add a Fedora Core 4 repository like I did.

Now click the OK button. You may see a warning that you must reload. Pay attention to that warning. Click the Reload button in Synaptic. You should

see many more packages that are available to you. Look for the one that you downloaded and install it with Synaptic. If you use Synaptic, it will know what other packages it must install to make the application work, and it will install these other packages. If you try to install it yourself you may have dependency problems.

There are other ways to get the same results, but they are command-line ways. I have given you an easier

point-and-click way to find and install new packages.

THE WRONG WAY

If you go against my advice and download a package, here is how to install it using KDE. Download a Fedora-compatible RPM package and save it to your desktop. Right-click on the icon for the package. Choose Open With... from the pop-up menu. Fill in the dialog the way you see it in Figure 13.

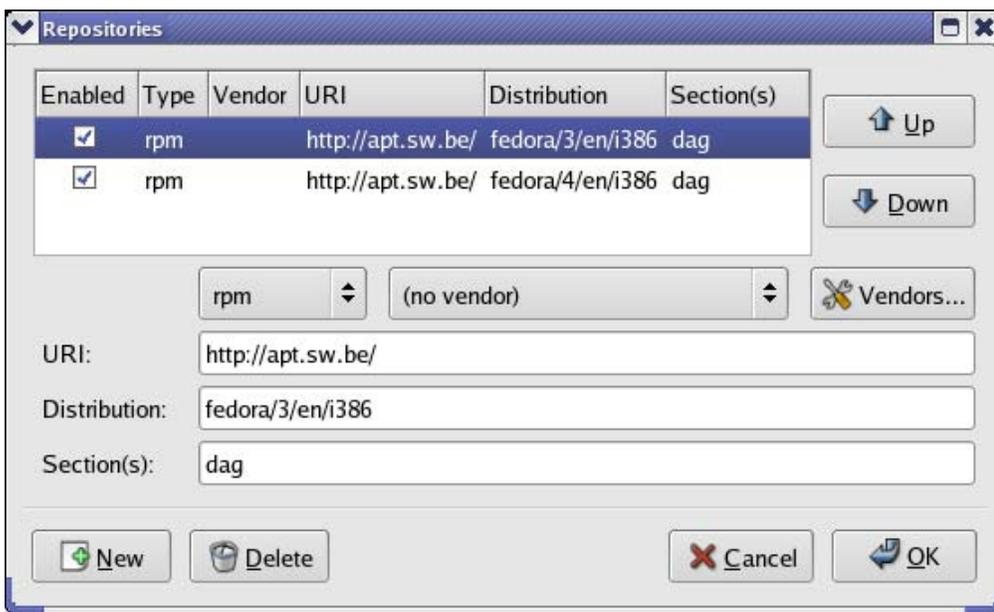


Figure 12. Add the dag Repository

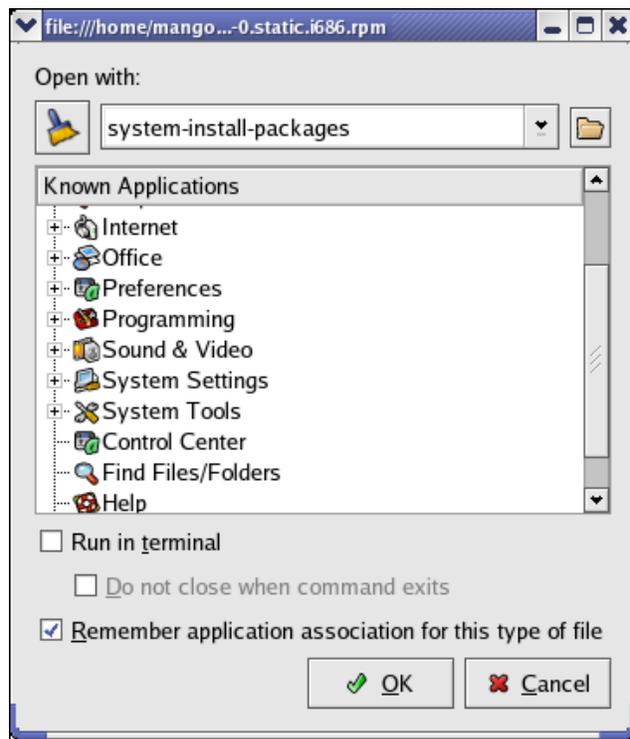


Figure 13. Setting the Default Application for RPM Files

Type `system-install-packages` in the empty field at the top. Make sure to click the box `Remember application association for this type of file`, so you never have to do this again.

tions, you can double-click an RPM file on the desktop (or anywhere else), and it will run `system-install-packages` automatically.

When you click the OK button, Fedora will ask you for the root password and try to install the package. I say try, because it can be foolish to download packages and install them this way. You can make mistakes and Fedora will not be able to install your package.

I said before that Fedora maintainers are GNOME groupies [*toadies—Ed.*]. They make GNOME easier to do these things. You can start Synaptic from the menu (I think it is under System Settings). You can install a package on the desktop easier too. Right-click on the package and choose Open with installer from the pop-up menu.

When you are finished following my KDE instruc-

POSSIBLE KDE PROBLEM

If you have to go through the Open With... thing again, it is because you upgraded to a newer version of KDE and it did not update your personal settings correctly. Either Fedora maintainers do not care enough about KDE to get this right, or the KDE maintainers made this mistake. I do not know.

The only way I know to fix this is to log out, go to a console (press Ctrl-Alt-F1), log in and type the command:

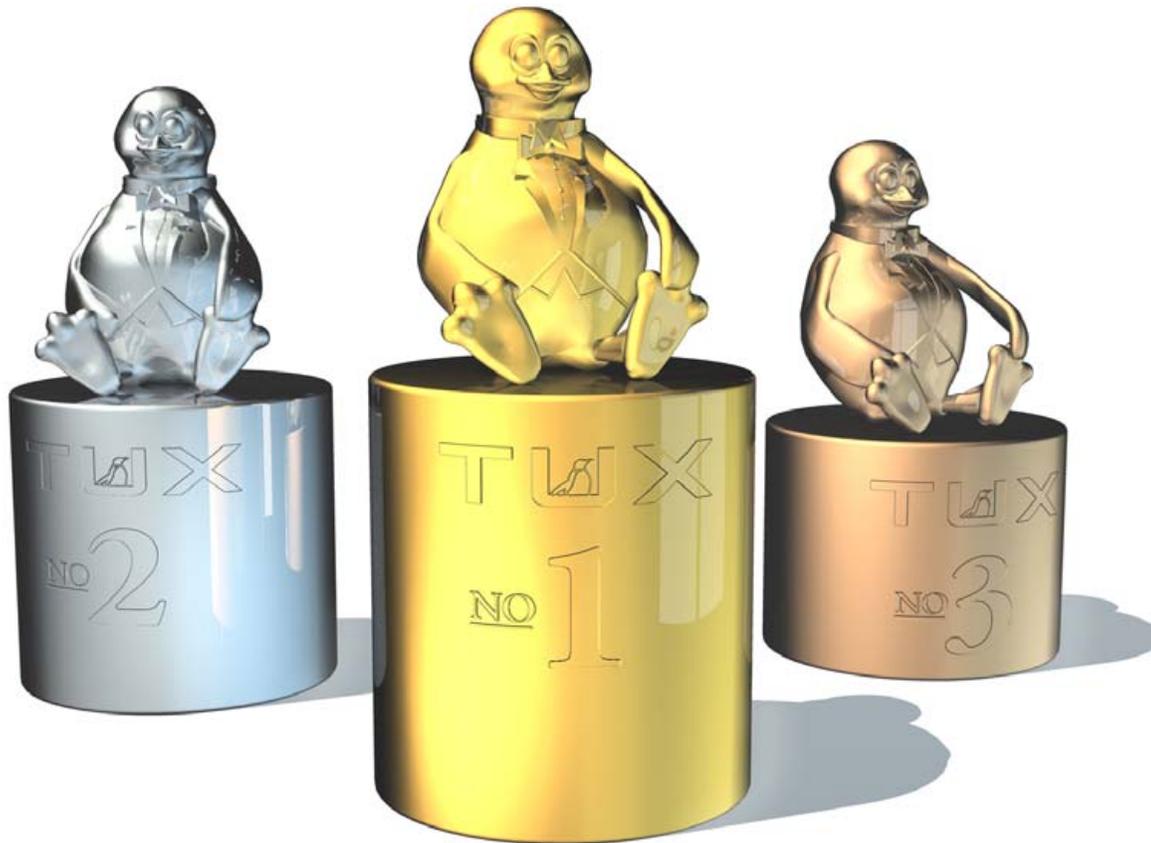
```
$ mv .kde kde.old
```

This command saves your old configuration directory in case you have data in it somewhere that you need. But the next time you log in to KDE, you will see you lost all your old settings, and you will have to configure the desktop again the way you liked it. ■

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.

2005 *TUX* READERS' CHOICE AWARDS

Read on to see how your fellow *TUX* readers voted in our first annual Readers' Choice Awards. JAMES GRAY



Ah, sweet, lazy summertime. We debated long and hard whether to hold the voting for the inaugural *TUX* Readers' Choice Awards in August. Some *TUX* staffers cautioned that our wonderfully attentive readers would be at the beach, scaling high mountain peaks—or at Disney World *yet again* to stop the youngsters finally from pestering them.

Lucky for everyone, the nay-sayers were wrong. We opened up the on-line poll and thousands of you responded with opinions about your Linux desktop faves. For this, we thank you. What's more, we didn't have to rely solely on the *TUX* readers located in the furthest reaches of Southern Hemisphere who are now hibernating their way through a long winter. Dear *TUX* readers, don't you ever go on vacation? We're guessing you packed your Treo or Blackberry next to the beach ball and sunscreen and snuck a *TUX* fix when nobody was looking. Were we right? Either way, we're pleased that so many of you took part. And hey, if you didn't get away for vacation, don't feel blue. Here I am writing this article—and it's not at the beach on my Treo!

Opinionated *TUX* readers, you have spoken wisely, and here is what you said.

FAVORITE COMMUNICATIONS TOOL

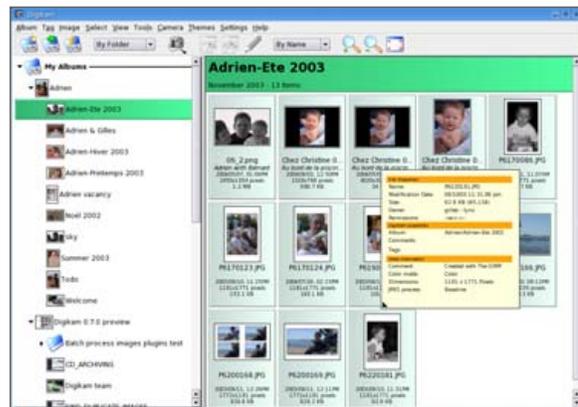
1. **Gaim:** <http://gaim.sourceforge.net>
2. **Kopete:** <http://www.kopete.org>
3. **Skype:** <http://www.skype.com/products/skype/linux>

Gaim was the clear winner of the communications tool category. We find it interesting that the top two vote-getters are multiprotocol tools. Whereas in other OSes you typically need a different tool for each protocol, Linux-based tools are like Swiss Army knives. Here's yet another example of how much Linux people appreciate choice. You'll also notice that Skype came in third place, but it was a distant third. Have you tried it yet? It lets you make free phone calls with other Skype members on your computer via the Internet and low-priced calls to non-Skype telephone numbers—very cool.

FAVORITE MOBILE TOOL

1. **gpilot:** http://linux.about.com/library/cmd/blcmd11_gpilot-install-file.htm
2. **JPilot:** <http://www.jpilot.org>

Only a fraction of *TUX* readers voted in this category, and the two top vote-getters were close. Is it because only a handful of you synchronize your Palm Pilot with your Linux box? Or, are *TUX* readers not Palm users? Perhaps you use other apps that we didn't list? We're curious to know.



digiKam Main Screen (courtesy of the digiKam Project)

FAVORITE PRODUCTIVITY SUITE

1. **OpenOffice.org:** <http://www.OpenOffice.org>
2. **KOffice:** <http://www.koffice.org>
3. **StarOffice:** <http://www.staroffice.com>

OpenOffice.org is so popular that it ate everyone else's lunch in the productivity suite category. It beat out KOffice by a margin of nearly 10 to 1. What's more, did you notice how StarOffice came in third place? StarOffice is actually based on the same open-source code as OpenOffice.org, except it comes with an added database application. Dare we assume that you guys like OpenOffice.org?

FAVORITE MUSIC PLAYER

1. **XMMS:** <http://www.xmms.org>
2. **amaroK:** <http://amarok.kde.org>
3. **Audacity:** <http://audacity.sourceforge.net>

XMMS and amaroK are both excellent music players that received almost the same number of votes. They also left all the other music players behind. We were surprised, however, to see that Audacity, a cool program for sound recording and editing, didn't garner more votes. Audacity isn't so much a music player as a music or sound editor, but Audacity also has a strong following and lots of Web-based resources. Go to the Audacity Web site and check it out.

FAVORITE DIGITAL PHOTO MANAGEMENT TOOL

1. **digiKam:** <http://www.digikam.org/Digikam-SPIP>
2. **gtkam:** <http://www.gphoto.org/proj/gtkam>
3. **F-spot:** <http://www.gnome.org/projects/f-spot>

The fact that **digiKam** won this category is not surprising. The app is arguably the most advanced and best-supported digital photo management tool for Linux right now. It probably didn't hurt either that digiKam was reviewed in the August 2005 issue of *TUX*. We don't really have that much power over you, do we? You're getting sleepy...very, very sleepy...

FAVORITE MEDIA PLAYER

1. **MPlayer:** <http://www.mplayerhq.hu/homepage/design7/news.html>
2. **Kaffeine:** <http://kaffeine.sourceforge.net>
3. **XINE:** <http://xinehq.de>

Although **MPlayer** received the most votes for favorite media player, both Kaffeine and XINE polled well. Here's yet another area where Linuxers have several excellent choices based on their needs and preferences. *TUX* readers are aware of those choices and fully taking advantage of them.

FAVORITE DESIGN TOOL

1. **GIMP:** <http://gimp.org>
2. **Scribus:** <http://www.scribus.org.uk>
3. **Inkscape:** <http://www.inkscape.org>

The design tool category wasn't much of a contest, with **The GIMP** taking top honors. It's one of those core programs we all know and love that has been around for eons, or so it seems. Nevertheless, Scribus has gained in both popularity and sophistication very rapidly, so keep your eye on this rising star. Future voting in this department will be interesting to watch.

BEST PLACE TO BUY A LINUX DESKTOP OR LAPTOP

1. **Linux Certified:** <http://www.linuxcertified.com>
2. **EmperorLinux:** <http://www.emperorlinux.com>
3. **Linux Computer Systems:** <http://www.linuxcomputersystems.com>

It's amazing how many of the big retailers are beginning to jump on the Linux bandwagon, realizing at last how profitable and enjoyable it can be to sell computers without the yoke of Microsoft. Fry's, MicroCenter, Wal-Mart, and others are now unabashed Linux supporters, largely thanks to pushes from Linspire, Xandros and others. Okay, so that was our plug for the big guys—who really don't need a plug because they have marketing budgets. Now let's talk about the smaller guys, the ones who were passionate about Linux when Linux wasn't cool. Although you have myriad choices about where to buy your Linux PC, **Linux Certified** is your clear favorite, followed by EmperorLinux and Linux Computer Systems. We applaud these companies, many of which probably started in garages and now are becoming very serious businesses. To them we say "Never forget that HP and Apple started in garages too!" ■

FAVORITE GAME

1. **Frozen Bubble:** <http://www.frozen-bubble.org>
2. **Tux Racer:** <http://tuxracer.sourceforge.net>
3. **Super Tux:** <http://supertux.berlios.de>

Although it has been said by some that Linux-based games are less impressive than those on other platforms, *TUX*ers seem to disagree. Not only did you vote in huge numbers, but your votes also were spread more evenly across the different options than in any other category. Although our mothers would chide us for wasting time on games, we are happy to see that the *TUX* community takes time to play hard after working hard. Not surprisingly, the prize in this category goes to the highly addictive **Frozen Bubble**.

FAVORITE TEXT EDITOR

1. **vi:** <http://www.vim.org>
2. **KWrite:** <http://kate.kde.org>
3. **Kate:** <http://kate.kde.org>

The **vi** users have it! But by only a slim margin. You also love KWrite and Kate with nearly equal fervor. Interestingly, enough of you voted for emacs to put it into fourth place. (Gosh, we certainly have some geeks in the house!)



James Gray has worked in marketing and promotion for several Linux companies over the past decade, including SUSE

Linux, No Starch Press and now *Linux Journal* and *TUX*. By night, he is working on his MS degree in Environmental Science, which lets him play with GIS and other cool technologies. He welcomes your feedback at jgray@ssc.com.

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Digital Exhibitionism, Part I

How to use digiKam to touch up your photos.

JESSICA HALL

I'm a prolific digital photographer. Since buying my first decent camera last year, I've come to think of digital photography as one of my favourite hobbies. I have a collection of some 5,000 images—many of them requiring some enhancement—and I've found the tools on Linux for touching up and managing photographs to be second to none. This month, I show you what I've learned about how to use the basic editing and photo management functions in digiKam (<http://www.digikam.org/Digikam-SPIP>), as reviewed in the August 2005 issue of *TUX*.

RED-EYE REDUCTION

Although most cameras now have a mode to minimise red eye in flash photography, it still happens far too often. digiKam comes with a simple-to-use red-eye correction tool. Open your picture in the digiKam editor and zoom right in on the eyes. The more you zoom in to only the red-eye area, the easier it is to define the area to correct. Once you've zoomed right in, use the mouse to draw a selection around the iris of the eye. The unselected area of the photograph will fade out, helping you focus on the area in which you're working. Now, select Red-Eye Reduction from the Fix menu.

If you've managed to select exactly the right area of the eye, select the radio button next to Aggressive. Click Ok, and repeat the steps on the other eye. You might find it helps to run the filter two or even three

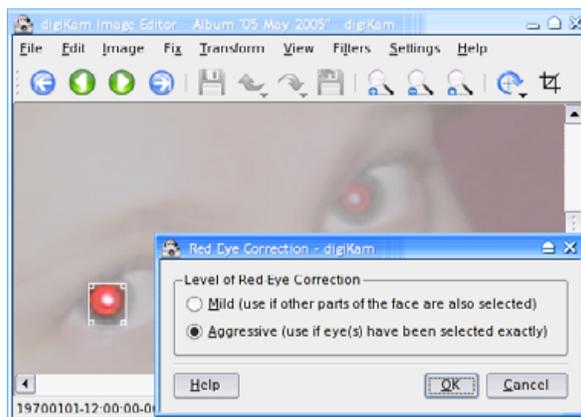


Figure 1. Red-Eye Correction Tool

times over each selection if the red-eye effect is particularly bad, as in the example photo. The filter isn't perfect, but as you zoom back out, you can see a marked improvement over the original image.

CROP AND RESIZE

If you're planning to send your images via e-mail or post them on the Web, you probably want to resize them to a more Web-friendly or e-mail-friendly size. You also probably would like to crop the picture to adjust the positioning of the subject or remove unwanted background details. Cropping means cutting off the parts of the picture that you don't want in the final copy.

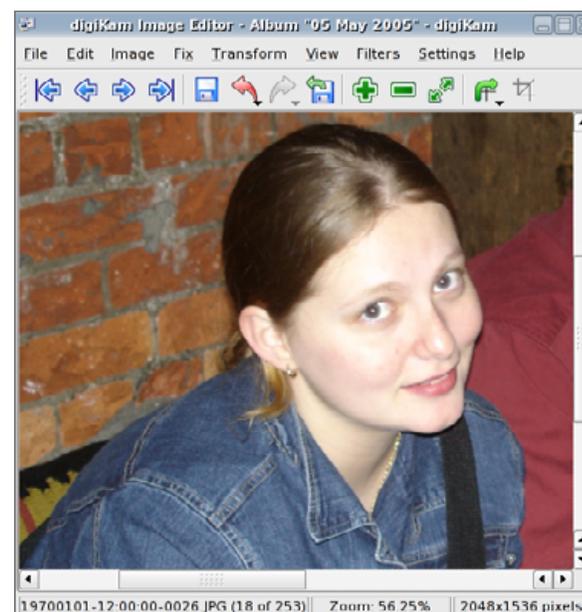


Figure 2. After Using the Red-Eye Correction Tool

Many people are used to cropping their pictures by selecting only the contents of the picture they want with an arbitrarily sized rectangular selection. This can present problems later on, though, if you want to resize the picture.

I like to use the aspect ratio crop tool to avoid this problem. Suppose you want to be able to resize your cropped picture to 1024x768, 800x600 or 640x480. These sizes have an aspect ratio of 4:3, so

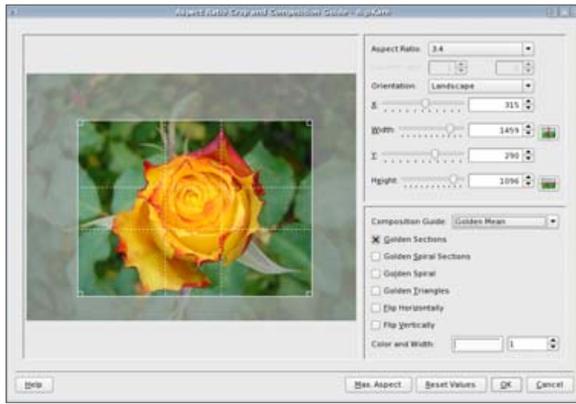


Figure 3. The Aspect Ratio Crop Tool



Figure 4. The Cropped and Centered Image

if you can crop an area that has an aspect ratio of 4:3, you can resize the cropped picture to any of these sizes without distorting it. This also lets you later resize all of your photographs to a uniform size for posting on the Web, so that if you want to post all your photos at 800x600, you can do so without worrying about distorting the pictures.

Open the image you'd like to crop in the

DIGIKAM MAKES AN EXCELLENT PHOTO LIBRARY. AS WELL AS THE TRADITIONAL CONCEPT OF ALBUMS, IT INTRODUCES TAGS FOR PHOTOGRAPHS BY CATEGORY.

digiKam editor, and select Aspect Ratio Crop from the Transform menu. Select the aspect ratio you want from the Aspect Ratio drop-down box. The example I use here is 4:3, as I'll later resize the image to 800x600 for putting on the Web. In the image window, use the mouse to drag the frame around, centering it over the part of the image you'd like to crop to. You can enlarge or shrink the frame by dragging its corners. Click Ok when you're happy with your result. You'll see your newly modified image in the viewing window.

Now you can resize the image to a more Web-friendly size by selecting Resize from the Transform menu. Type your desired width into the width box, and press the Tab key to have the height box automatically filled in. Click Ok when you're finished. digiKam scales images to fit into the image window by default, so to see the size of your new image, you may have to click the Zoom Autofit toolbar button to turn this option off temporarily. You can also toggle this option with the keyboard using the A key.

BRIGHTNESS, CONTRAST AND GAMMA

The photograph in Figure 5 was taken standing at the foot of a runway, snapping aircraft as they flew overhead to land. Because the plane was being shot against a very bright sky, the camera took a very short exposure and the plane is a little dark. To fix this, we use digiKam's Brightness/Contrast/Gamma tool, found in the Fix→Colors menu. Use the sliders

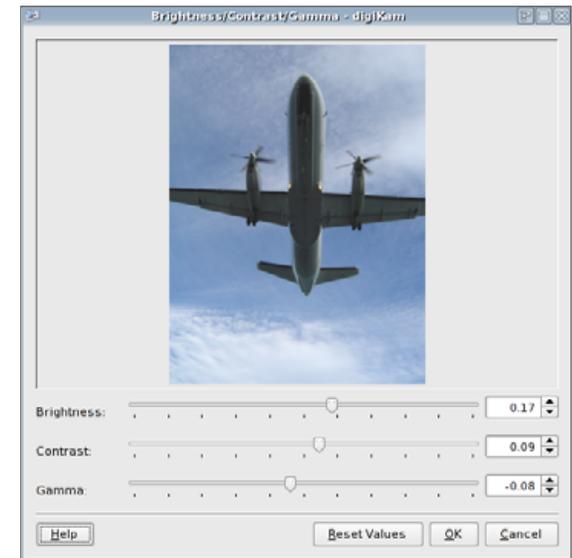


Figure 5. The Brightness/Contrast/Gamma Tool

to adjust the brightness, contrast and gamma to your liking. One tip is that when you increase brightness, you should also increase contrast and perhaps decrease gamma slightly so that the colors look natural after the changes.

NOISE

One problem with increasing the brightness of a dark picture is that it tends to create more noise. To reduce the speckled appearance, you can use the Noise Reduction tool from the Fix menu. This softens and smooths the appearance of the pic-

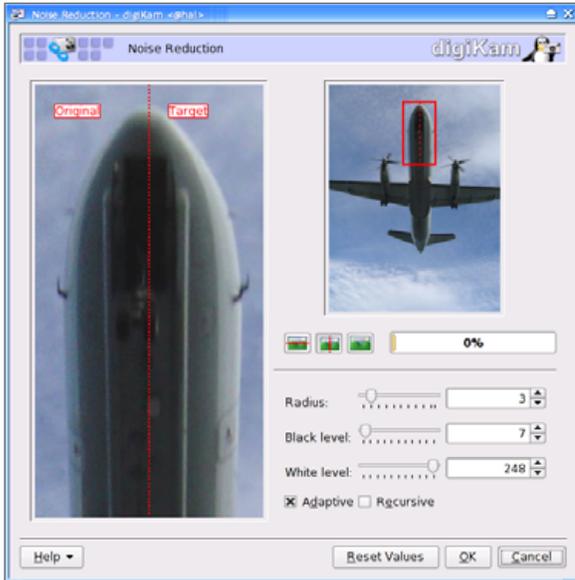


Figure 6. Despeckling an Image Using the Noise Reduction Tool

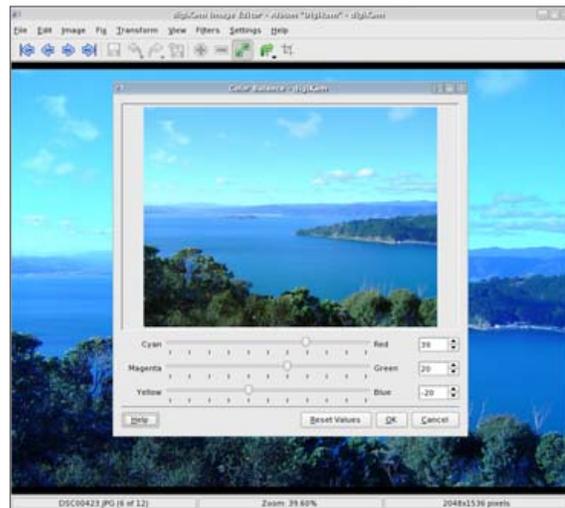


Figure 7. The Color Balance Correction Tool

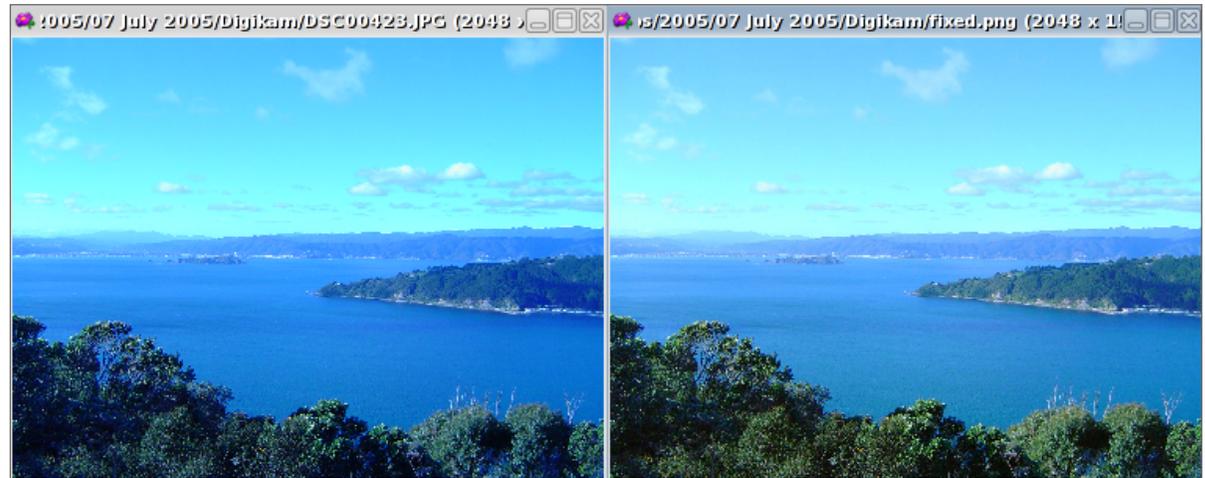


Figure 8. The Original and the Corrected Image

ture by applying a slight blur effect, so use it sparingly. Adjust the sliders until you get the effect you want based on the preview displayed.

COLOR CORRECTION

This photograph was taken on a bright sunny day with the wrong settings on my camera! I had set the camera to optimize the photos for indoor photography. The preset for indoor photography adds a slightly bluish cast to give more natural looking colours under yellow light and produces rather unfortunate effects outdoors if you forget to turn it off. You can fix the color balance of a photograph like this using the Color Balance tool, found in the Fix→Colors menu. Because this particular image is a little too blue, we need to give it more warmth. Adjusting the sliders to give us more yellow, red and a little green lends this photograph a more natural hue.

MANAGING PHOTOGRAPHS

digiKam makes an excellent photo library. As well as the traditional concept of albums, it introduces tags for photographs by category. Photographs can have multiple tags, allowing

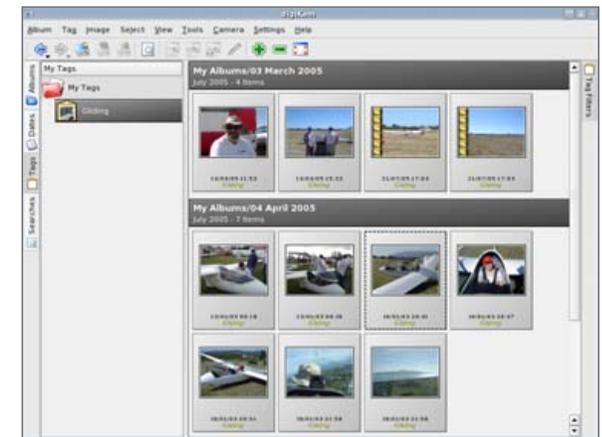


Figure 9. The Tag Management View

you to search for related groups of photographs easily, irrespective of what album they are in or what date they were taken. To create a new Album, right-click on My Albums in the sidebar of the Album view, and select New Album. Give your album a title and a comment, and optionally select a category for it. The simplest way to import photographs into your albums is to drag and drop them from Konqueror. Highlight the group of photographs you'd like in your album, and drag them with the mouse into the digiKam album view window. digiKam copies the photographs into the album. To set captions and comments for individual photos, right-click on the thumbnail of the photograph, and select Edit Comments and Tags. You can add new tags from this window by right-clicking in the Tags pane or by using the Tag menu. The Tag tab on the sidebar takes you to a view that shows you your images grouped by tag and what album they come from.

PRESENTATION

digiKam has a great tool for exporting your images to an HTML gallery you can post on the Web. Any comments you've added to your images are printed below the photograph in the gallery. Select HTML Export from the Album→Export menu, and select the albums you'd like to export to the Web. Click on Look on the iconbar to modify the title of your Album. Once you've finished customizing the options, Click Ok. By default, the gallery is created in your home directory, and it is opened in Konqueror for you to preview once you're done. Now you

can upload this folder to your Web space. If you don't like the default folder name, you can rename it to anything you want.

If you're a GNOME user, don't despair!

Next month, we'll take a look at how to touch up photographs and manage photo collections with Gthumb (<http://gthumb.sourceforge.net>). ■

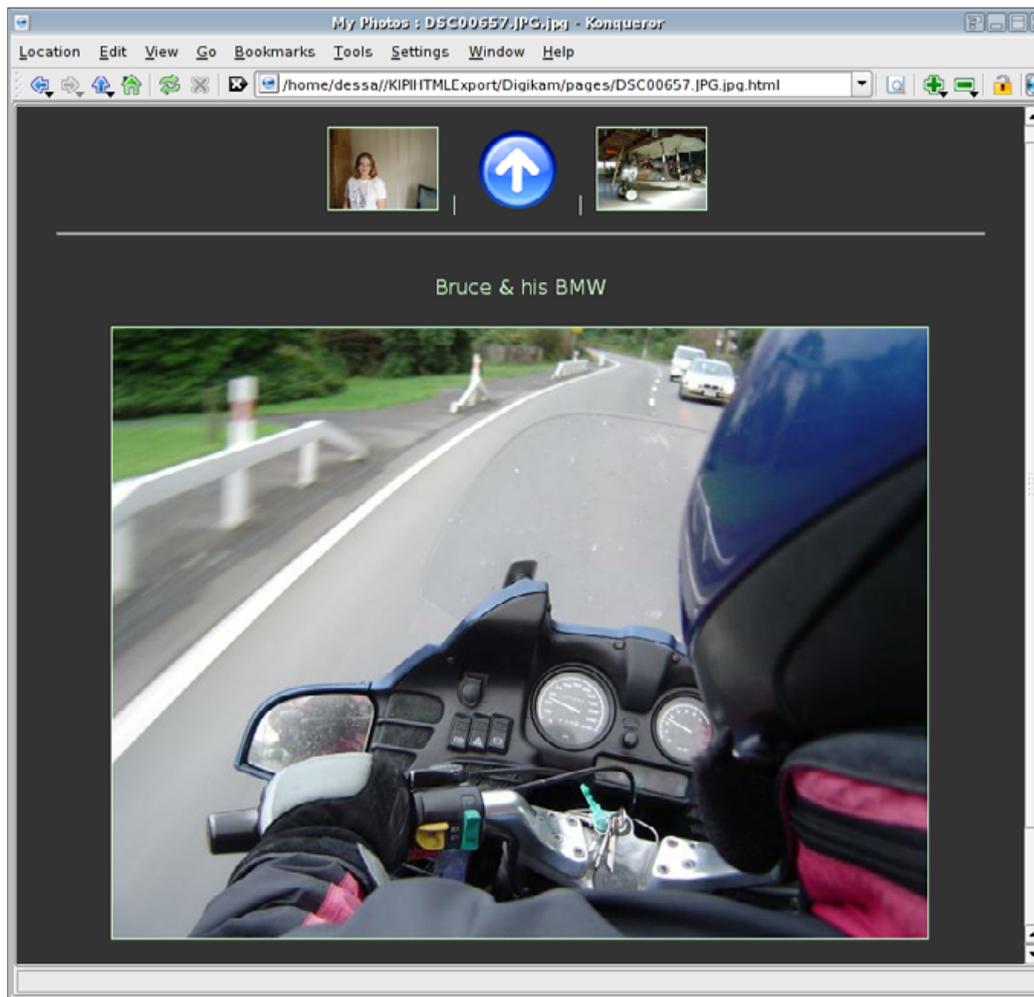


Figure 10. The Finished Web Gallery



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

Open-Source Metadot Makes the Grade for Schools

Metadot provides some case studies where people have had success using their Web site management software.

DANIEL GUERMEUR

In general, we do not print blatantly self-serving articles from vendors or authors of software, even if the software is open source. When companies approach us to write an article for TUX, we set guidelines as to how the article may read, and we request that they focus on case studies, not on “selling” their software. Metadot provided an article that does not read like an advertisement, so we fixed a few spots and published it for the benefit of our readers.—Ed.

CASE STUDIES OF METADOT

Educational institutions—from nursery-school programs to massive universities—have recognized the power and economics of an active Web site. Nearly every school of every size and shape has built its own Web site. Beyond that, however, these Web sites vary greatly in terms of usability, information available and timeliness of information posted to the site. This article discusses how several institutions have taken advantage of open-source technology to build powerful, yet easy-to-use and dynamic Web sites.

All school IT administrators face the same problem. Users constantly request changes,

updates and modifications to a school’s Web site, and there never is enough time in the day to get all the requests accomplished. Your site or your hundreds of sites are constantly outdated and you would like to automate them.

Although many content management applications are available today, educational institutions have long been a proponent of open-source software. The two primary reasons for considering open source are cost and the fact that open-source software often answers the needs of users by providing the right features or functionalities. Let’s review these two reasons.

Educational institutions have been cash-strapped for as long as I can remember. It seems there is a chronic funding deficiency for schools in the US. Therefore, these organizations must carefully justify the spending of every single dollar. Free software is cheaper than non-free software, yes? Yes, but the cost of software also includes the total cost of ownership (TCO), which includes maintenance, support and downtime costs. Open-source software has somewhat of an okay record TCO-wise when compared to commercial software running on commercial operating systems.

The second point for strongly considering open-source technology for educational institutions relates to the open-source software development process: the users of the software dictate what they want, not a marketing team. Therefore, all new features are features someone needed and developed or had developed for them. The direct result is that open-source software does the job wonderfully. It often does not offer a soup-to-nuts solution like enterprise software does, but it focuses on doing one thing very efficiently.

Let’s review how several different schools are using open-source content management systems. Jenna Stone is the Director of Technology for Massena Central Schools in upstate New York, a rural district serving approximately 3,000 students. Like many districts, school officials were having a hard time communicating with their external audiences—parents and local officials, for example—because paper and postage costs are high, and information sent home in backpacks didn’t always make it home. As a result, they have focused on their Web site as a means of communication. Jenna used the Metadot Portal Server to create a cost-effective intranet/extranet solution (six unique Web sites that include five buildings and the district) that is being used by students, teachers and school officials.

Content varies across the district’s multiple sites. The principals of two buildings, for example, post announcement bulletin data on the site every day. Weekly spelling lists are posted on another site and are no longer sent home to parents on paper. Teachers who have always wanted their own Web sites can now create and manage their



Figure 1. Massena Page Created with Metadot

own individual sites.

Like all K–12 school systems, Massena makes every effort to maximize the use of its limited technology dollars. One strategy that has been successful for Massena is using open-source software that is so user-friendly that content on the site is maintained by principals, teachers and building secretaries. Jenna says it is imperative that the principals, teachers and/or clerical staff maintain the content on the site, as the site is only as good as the content that is on it. They previously used a more cumbersome application, but it was an empty shell because no one could update it. Now they can update the content in as little as five minutes, so they are saving money because of the product's low cost as well as the fact that it's easy for the IT staff to maintain (and easy for others to update). According to Jenna, Metadot's biggest advantage is its ease of use. "I don't care if the software is free, if it's not easy to use, then it's not going to work for us", says Jenna. "With Metadot, you don't have a steep learning curve for people learning to insert content on a site."

Even schools with sophisticated infrastructures and healthy IT budgets have turned to open-source Metadot as a solution for their portal needs. World-renowned MIT is a highly decentralized organization, meaning that each MIT department is free to select their portal solution, intranet and project Web site. Some of them, like MIT's Civil Engineering and Environment depart-

ment (CEE), have chosen to use Metadot for their department Web site and intranet. The public MIT CEE Web site is visible on the Internet at <http://cee.mit.edu>. MIT's CEE department rolled out Metadot in several phases, starting with a new look-and-feel design, information architecture and content migration. The Metadot look-and-feel templates are bundled together into a skin. Skins, which contain images, cascading style sheets (CSS) and template toolkit files, are very popular in the Open Source community because they allow unlimited look-and-feel creativity (because they separate look and feel and code logic). The CEE site is managed by the department's communication officer, who does not have a technical background. In addition, the department is making space available on the Web site for students so that they can take advantage of the program's power and flexibility to suit their own purposes.

Today the CEE site has three main functions: as the official public-facing Web sites for the department, to provide researchers with their own personal Web site so they can publish information and research about their projects and share their papers, and to provide a collaboration area for recruiting where MIT employees can obtain information and share feedback on prospective candidates. In a collaborative area, they post candidate information, such as

CVs, letters of reference and comments from people who have interacted with the candidate. This highly

dynamic site allows the faculty to participate actively in the department's hiring process. In the future,

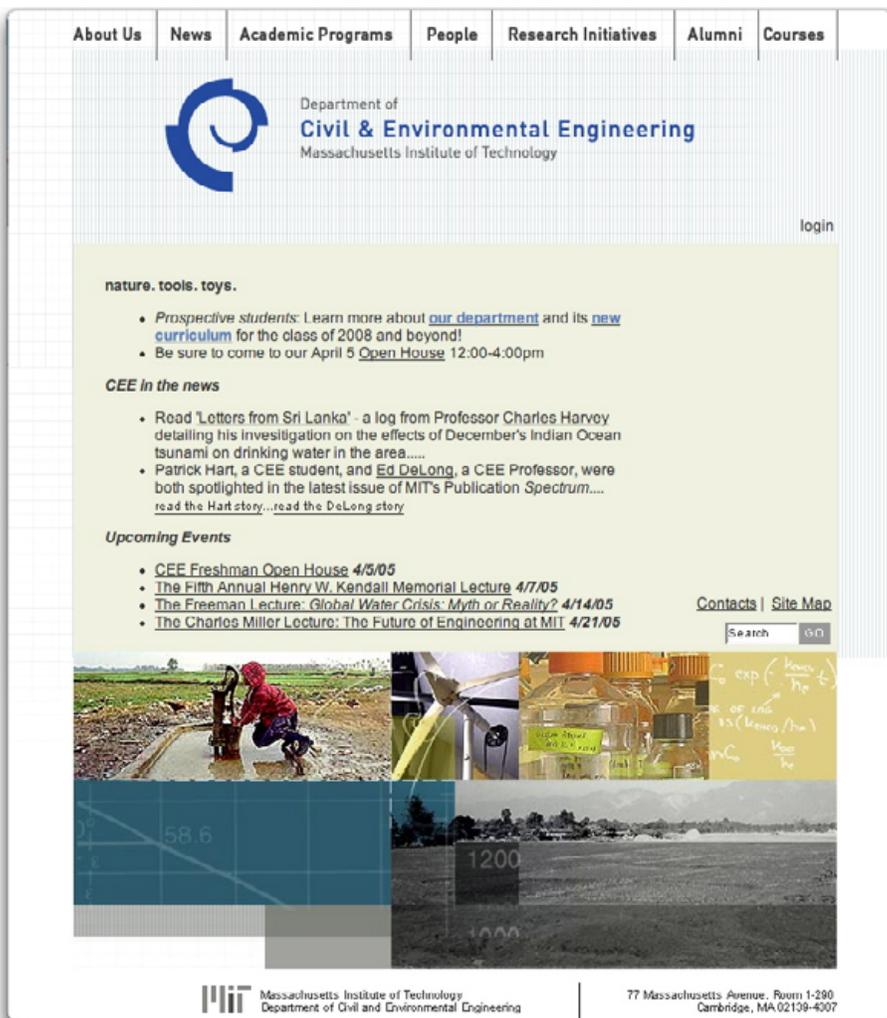


Figure 2. CEE Site Created with Metadot

MIT's CEE department plans to migrate existing databases that are not Web-enabled into the Metadot Portal Server, thus providing a central point of Web entry to the entire organization.

The University of Florida's Department of Materials Science and Engineering stands among the best materials, metallurgy and ceramics departments in the nation, with current research expenditures of approximately \$10 million a year from external contracts and grants. The department has 31 faculty members, 30 scientists and research scholars, more than 450 students and 20 technical and support staff. As one of the top ten research universities in the country, the university's professors are technically savvy. MSE Director of IT Ed Bailey wanted to create a Web site template and empower each professor to create his or her own site for posting class and grant information.

Bailey said that he looked at several portal solutions, but the ones he liked were priced prohibitively high (\$50,000 per licensed processor). He ultimately chose Metadot because of its price, flexibility, strength and the fact that it is an open-source product. Many grant agencies expect research to be available on a Web site, and Metadot enables the university to fulfill this qualification.

There are currently 19 active Metadot portals in place at the university, and 15 more are in the planning stages.

These are merely a few examples of ways that educational institutions of varied sizes have optimized the power of open-source software. Whether the Web sites are being used internally or externally, it's imperative that they are easy to access and easy to edit so that the content is never outdated. By investing in an easy-to-use open-source content management application, IT administrators will have more time to focus on strategic business initiatives and spend less time updating the Web site(s). Although the content management software market is very crowded, solutions exist that enable educational institutions to take advantage of dynamic Web site technology. These solutions can answer collaboration and communication needs while providing content management tools that are easy to use, hence providing an instant productivity boost for those using them. ■



Daniel Guermeur is founder and president of Metadot Corporation. He can be reached at Daniel@metadot.com.

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I've found someone new.
Someone I can depend on.
Someone who is fun for
a change. Thought you might
like to see his picture.*

-Sandy

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Having the Audacity to Manipulate Sound

How to use the cross-platform program Audacity to edit sound files.

JOSHUA BACKFIELD

Audacity is a cross-platform audio editor that provides some of the same abilities as store-bought audio editing programs such as Peak Express. This program has more capabilities than merely cutting and copying files; Audacity also can record from an input source, which goes along with mixing multiple audio files together. This is the same type of utility that Audio Production Studios use, although they use a hugely expensive program called Pro Tools.

I downloaded the source and compiled it myself, but most of you should be able to download the packages. You can use a package manager such as Kpackage or Synaptic to install Audacity, if it is available for your distribution. You also can install the packages with apt-get or yum at the command line. Finally, you can download Audacity as RPM or DEB packages and install them locally at the command line. For more information on downloading Audacity, visit <http://audacity.sourceforge.net>.

GETTING STARTED WITH THE AUDIO FILE

Let's assume you have installed the program and have it running. In this article, we are take an audio file and turn it into an audio preview file. We turn the stereo audio into mono, normalize the audio, crop it down to 30 seconds and use a fade in/fade out.

The first step is to open an audio file for editing. Go to the Project menu and select the Import Audio option. This brings up the Open File window. Here, select the audio file you want to import. Make sure the file that you are going to import is a WAV file before importing it. And, always make sure the audio file is stopped before trying to edit it. This means pressing the giant button with the Square in it to stop the file from playing. You also can press the spacebar to start/stop playing the audio.

BOUNCING TWO STEREO TRACKS TO ONE MONO TRACK

Now we have the audio file open that we are going to edit. Next, we need to split the left and right channels into their own separate tracks and then

convert them into mono tracks. Figure 1 shows the menu to split the tracks into the left and right channels. Select the title of the audio track (on my track it is labeled "harder"). Once the menu comes up, select the Split Stereo Tracks option. You should now have two separate tracks; you will use this same menu shown in Figure 1 again to change the two tracks to mono. Select the title of *each* audio track, and select the Mono option.

Doing this allows the two tracks to be mixed together. Next, we mix the two tracks together into one single track, which is called bounc-

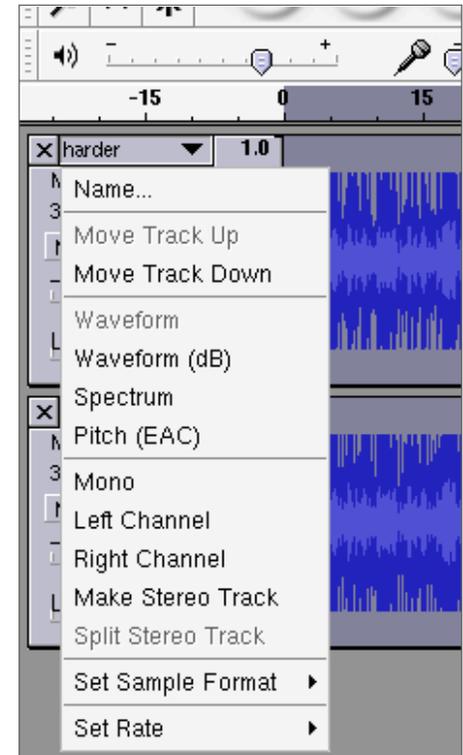


Figure 1. Changing the Tracks to Mono



Figure 2. Mixed Audio Tracks

ing. Select both tracks; you can do this one of two ways. You can select the audio pane, which is right under the drop-down menu you used to change the audio track to mono, and then select the other track while holding down the Shift key. Or, you can go to the Edit menu, followed by the Select submenu, and then select the All option. This selects all of the audio tracks in the entire project. Either way works the same for this project. You then need to go to the Project menu and select the Quick Mix option. This should bounce the two audio tracks into one single audio track. If done correctly, your audio file should now look something like the one shown in Figure 2.

NORMALIZATION IS IMPORTANT IN AUDIO

Normalization is the process of adjusting the loudness of an audio track so it is the same throughout the entire track. We select the new audio track by going to the Edit menu, then the Select submenu and then selecting the All option. Now go to the Effect menu and select the Normalize option. Keep the two options selected by default, and press the Ok button to begin the normalization process. After the normalization has finished, the audio file should have no large peaks or low valleys. This allows the audio track to have about the same loudness throughout. This also keeps the listener from constantly turning the volume up and down.

CREATING THE CLIP WITH FADE IN/FADE OUT

Next, we cut out about a 30-second portion of the audio track. With the I cursor selected—this is the tool in the upper left-hand corner of the program that looks like an uppercase I—drag and select the portion of the song you want to keep.

You can see the length of the portion you are selecting in the bottom left-hand corner, as

shown in Figure 3.

Select as much or as little as you want; in this example, I am selecting about 34 seconds of audio. Now that you have selected the audio that you want to keep, go to the Edit menu and select the Trim option. This also is known as Trim Outside Selection, which cuts off the audio not within your current selection.

Next, we place a fade in/fade out on the audio file. Take the I cursor and select only the beginning of the track, which will have the fade in. As shown in Figure 4, you can see that only the part of the clip that I want to have the fade in is selected. After selecting the portion of the clip where you want the fade in, go to the Effect menu and select the Fade In option to create the fade in for the track. Do the same for the fade out; except, instead of selecting a portion at the beginning of the clip, select a portion at the end of the clip. Then go to the Effect menu and select the Fade Out option.

SAVING THE FILE FOR ALL TO SEE (AND HEAR)

We now have a 30-second mono clip, which has a nice fade in/fade out. Now, we need to get it out there for our friends to hear. To do this, go to the File menu and select the Save Project As option so that you can return to your project whenever you want. However, not everyone in the world can open an Audacity Project file (.aup file), so now go ahead and export the file. Because we have only a little bit to export, go to the Edit menu, then the Select submenu, and finally, select the All option to select all of the audio in the track. Then go back to the File menu, and select the Export Selection As

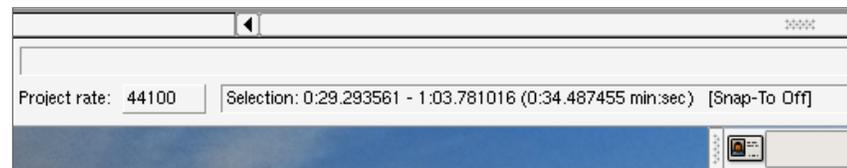


Figure 3. Length of Clip Selection

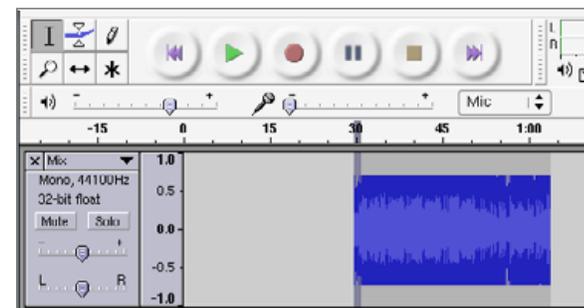


Figure 4. Fade In Selection

WAV option, which saves your project as a .wav file that everyone should be able to listen to.

SO WHERE DO I GO FROM HERE?

You now can take your new WAV file and change it to an MP3, AVI, MPEG or AAC file using a program designed specifically for changing audio file formats. I have shown you the basics of the program Audacity; it is up to you to use it to its full potential. For most people, this program is considered “cool”; however, for some new audio recording studios looking for a cheap alternative to Windows XP and Pro Tools, this program may be the perfect choice, especially because of its cross-platform abilities. ■

Joshua Backfield is a 22-year-old student at Southern Illinois University Carbondale. He is currently doing his internship at Dupage County Convalescent Center, where he is helping people learn the benefits of using Linux.

Introduction to Inkscape

Why you may want to use Inkscape and how to get started.

DMITRY KIRSANOV

When novice artists think of creating artwork, they usually think of programs like The GIMP, Photogenics or some other program with features similar to Adobe's Photoshop. Sometimes these programs are the appropriate tools. Sometimes they aren't. Many people end up working harder than they have to because they are trying to use a program like GIMP to do things that are more appropriate for a drawing tool.

If you have ever used CorelDRAW, you have a good idea of what a drawing program does. Inkscape is something like CorelDRAW. If you haven't used CorelDRAW, here's an example of where a drawing tool like Inkscape would come in handy. Suppose you want to draw a cartoon character without a "sketchy" look to it. You want the outline of the character to be composed of solid lines, not lines that look like pencil sketches. And, you want the lines to be connected perfectly in all the right places so that you can color-fill different parts of your character without the colors leaking through a hole in your outline to another part of your character. The problem is that you don't have the skill to draw the perfect solid-line outline of a cartoon character using the freehand drawing feature in GIMP. Worse, if you draw the character in GIMP and then decide that you have to enlarge it or shrink it, the outline becomes distorted. It may even develop "holes" through which color fills bleed.

Here's what you would like to do, instead.

You'd like to draw the solid lines of your cartoon character with all of its features (shirt, hands and so on) the best you can, and then adjust the shape and position of these lines until you've got it just right. If you discover that you've drawn the character too big or too small, you want to be able to change the size of the cartoon character outline without distorting your hard work.

This is the sort of thing Inkscape does extremely well. In this case, you might want to start with Inkscape and finish your cartoon character in GIMP. It doesn't matter. The point is that Inkscape does some things better than other programs, and you want to use the best tools for the job whenever possible.

VECTOR GRAPHICS

Inkscape makes the drawing task just discussed possible because it is a vector editor. You may have no idea what vector graphics are, but you probably have heard the term SVG by now. More and more programs, Linux distributions and devices are boasting support for SVG (Scalable Vector Graphics).

What's the buzz? What is a vector anyway, and how does it make graphics scalable in such a way that all other graphics are not?

Let's start with a simple thought experiment. Imagine that you have before you a simple image—say, a black disk on white background—and you need to describe it to your friend over the phone, so that she can reproduce it as exactly

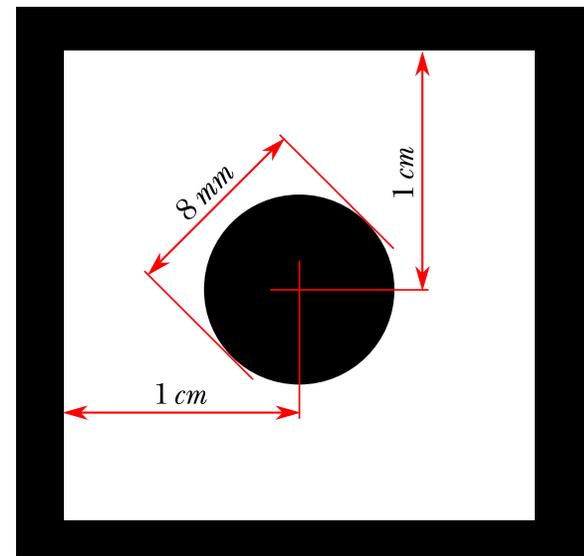


Figure 1. The Perfect Disk Described

as possible. How would you go about that?

Well, you'd probably say something like, "draw a solid disk, colored black, diameter...let me check...eight millimeters precisely, and its center is one centimeter from the top and from the left." That description (Figure 1) indeed gives a complete representation of the image; there's nothing in it that was not mentioned. Such a vector representation of an image is short, easy to understand (at least for humans) and so natural that you may not realize that different approaches to this simple task exist.

The bitmap of the same image (Figure 2) is what a computer would create based on this blueprint.

Programs like GIMP let you enlarge the disk,



Figure 2. A Bitmap Version of the Disk

but the end result is less perfect than the original. You can improve the end result by using anti-aliasing, but even an anti-aliased version can never be as good as the vector-based original disk.

VECTOR SCALABILITY

In the vector blueprint of the black disk image, you can easily replace millimeters with meters and draw the perfectly round disk the size of your backyard with no loss of quality. When you have a bitmap, however, scaling it up inevitably produces jaggies and that annoying pixelated look—because you are, in fact, scaling the pixels, not the image.

The point is that if you stick with vector graphics for your circle, you don't have to redefine the size and start from scratch to get a perfect circle. You can expand the original or shrink it without losing any of the fidelity of the original circle. You do not need to do any anti-aliasing or perform any other tricks. That's why scalable vector graphics are called scalable. They scale up or down without distortion.

If you still want to have a bitmap image when you're done, it's easy to convert an SVG image to a bitmap. This is called rasterization. Although it is easy to go from vector to bitmap, it's not easy to go from bitmap to vector.

In a way, the difference between vector and bitmap is similar to that between the source code and a compiled binary of a program. Source is for humans; binary is for computers. Source is the "idea" of the program; binary is a specific "implementation". The entire Open Source movement grows from the premise that you can make this world a better place by sharing ideas, not implementations. Can we apply the same principle to sharing images too?

WHY SVG?

The idea of vector representation of images is not

new. In fact, it may be even older than the concept of a bitmap. However, until recently, vectors were used mostly in professional design workflow, whereas the images on the Web and on typical end users' desktops were almost exclusively bitmaps.

One reason for that was the lack of a single, universally applicable and universally accepted, vector graphics standard. PostScript, PDF and Flash are all vector formats, but they are specialized and therefore limited in various ways. Here's where SVG's promise lies: a modern XML-based language, created by the W3C, can certainly give a huge impetus to the use of vector graphics everywhere. SVG (<http://www.w3.org/Graphics/SVG>) is a powerful (some would say overpowered) language with provisions not only for geometric shapes but lots of other things—gradients, filters (including blur), pattern fills, fonts and even animation.

Of course, SVG can't replace bitmaps outright, if only because not all graphics can be represented as vectors. This works fine for disks and other geometric shapes, but what about photographs, for example? Well, for one thing, a powerful modern vector language such as SVG *can* do amazingly photorealistic graphics. And for another, SVG can *embed* bitmaps into its vector image, treating them just like any other object (for example, you can overlay an embedded bitmap with vector captions and callouts, which is what I did in Figure 3).

But perhaps the more serious obstacle in the way of SVG is users' inertia. As mentioned previously, many people tend to think in bitmap by default, even when vector makes much more sense. Say "computer graphics", and more often than not you'll hear "Photoshop" or "GIMP" in response. Yet among the images that a typical user deals with daily, perhaps only digital photos require strictly bitmap processing. All the rest—

drawings, logos and Web graphics, diagrams and flowcharts, headings and clip art, postcards and wedding invitations, even random scribbles—is much easier and more natural to do in vector.

It's difficult, however, to evangelize about the vector bliss when the only decent vector graphics tools (such as Illustrator, CorelDRAW and Xara X) are limited to Windows and/or Mac, use proprietary formats and are quite expensive. Fortunately, this has changed recently with the advent of Inkscape (<http://www.inkscape.org>)—a free multiplatform vector editor with SVG as its native format. In its latest version (0.42 at the time of this writing), Inkscape has become seriously powerful and very usable.

INKSCAPE

The interface of Inkscape (Figure 3) is easy for newbies. The big bright buttons in the vertical toolbar on the left are inviting—and, more importantly, they do exactly what you think they do. Click on the blue rectangle, then draw on the canvas—you get blue rectangles. Click on the red ellipse and drag—you get red circles and ellipses. Fun!

But the real fun of vector graphics is not drawing; it's "editing".

Create some rectangles and disks as described above. Click on the topmost button (with an arrow) on the vertical toolbar—it's called the Selector tool—and then click on any of the objects (rectangles or ellipses) you just created. Immediately that object becomes selected—you see it framed in a dashed box, and eight handles appear around it. A selection can contain any number of objects; use Shift-click or drag objects around with the Selector tool and watch the status bar at the bottom of the window, which tells you how many objects and of what kind you have in selection.

Think of what you've done. If you've ever had

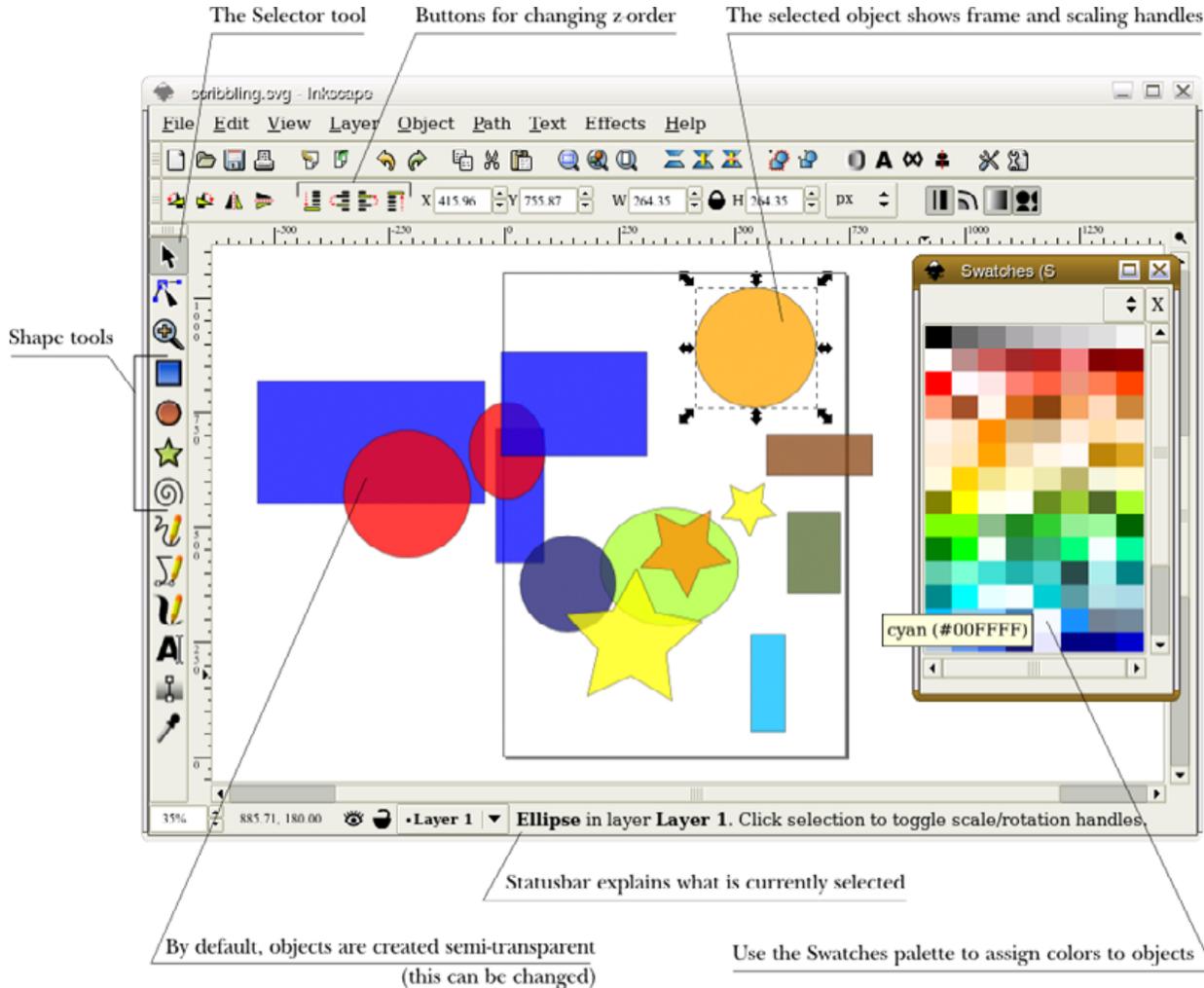


Figure 3. The Inkscape Interface

some experience with bitmap editors such as Photoshop, you may know how difficult it often is to separate something (for example, a human silhouette) from the background, and how poor the results can be. With vectors, all you need to do (in

most cases) is a single click. Objects in a vector image are never merged or flattened; the drawing always remembers what it consists of. It's like putting each single stroke and shape onto a layer of its own, except that it's done automatically for you.

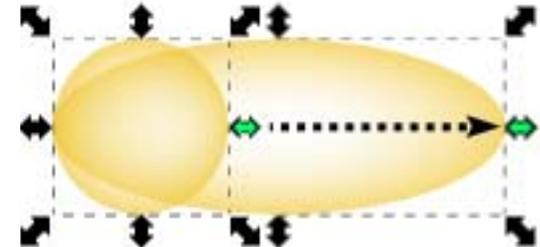


Figure 4. Stretch your objects easily.

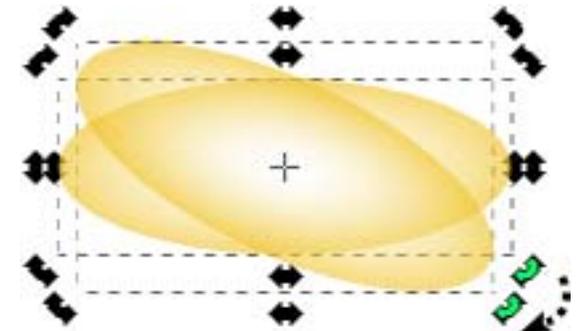


Figure 5. Rotating an Object

So what can you do to a selected object? A lot. You easily can drag it around to wherever you like, and you can stretch or scale it to any size by dragging the handles (Figure 4).

If you click the object again, the handles change and you can rotate the object (Figure 5). You can also easily skew the object.

Don't like the color? Use the Fill and Stroke dialog to change it. You can bring up this dialog by right-clicking on the object and selecting Fill and Stroke from the pop-up menu. You should see a dialog like the one in Figure 6. There are several ways to change the color. You can play with the sliders in the default tab, or try some of the other tabbed tools.

The Fill and Stroke dialog also lets you change the opacity of the selected object. You can change the stacking order (or z-order as it's usually called)

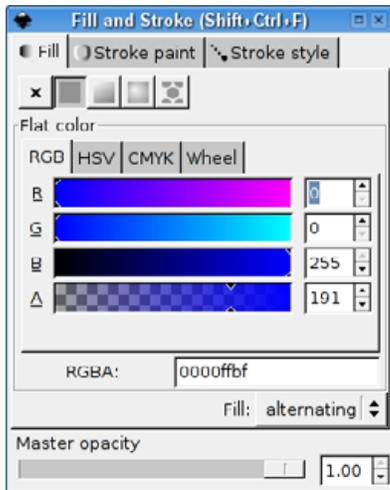


Figure 6. Fill and Stroke Dialog

of objects as well; use the Raise/Lower commands in the Object menu. You can combine several objects into a group—a single composite object. Or, simply press the delete key and the objects you have selected are no more.

DRAWING WITH INKSCAPE

Of course, you're not limited to geometric figures. You also can do freehand drawing (Figure 7).

Here, too, every stroke is an object in its own right, selectable and modifiable separately from others. For example, you can use the node tool (the tooltip says "Edit path nodes or control handles"), which is the icon right below the arrow selection tool. You also can press F2. This tool lets you reshape a line you have drawn. Simply grab (click on) one of the nodes that

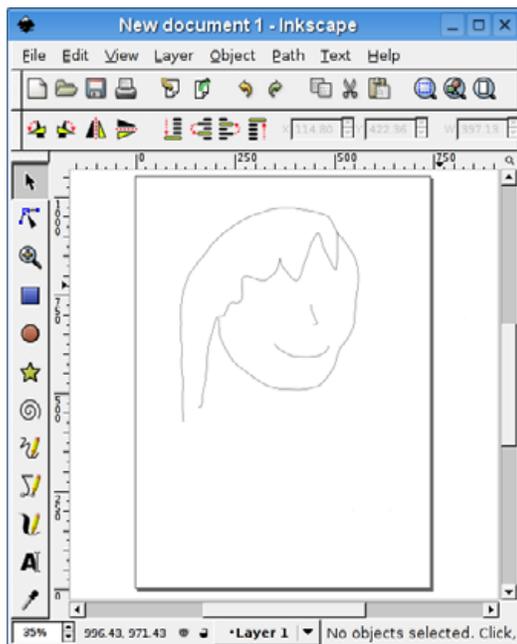


Figure 7. The Beginning of a Face

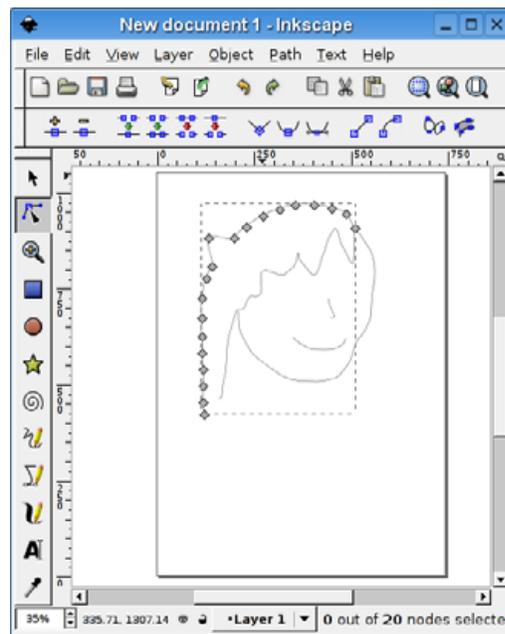


Figure 8. You can adjust lines without erasing or starting over.

appears, and pull it in any direction to modify the line (Figure 8).

A very nifty Inkscape tool is the Calligraphic pen, which is very convenient for making drawings—either technical or artistic. You can create sketches where every stroke is an object (Figure 9). There are 1,116 individual lines in this sketch.

This article should give you a general idea of what Inkscape is for and what it can do. I hope you will take it from here and explore the program on your own. ■



Figure 9. An Artistic Sketch with the Calligraphic Pen



Dmitry Kirsanov (<http://www.kirsanov.com>) is an independent author, designer, artist and consultant in the areas of XML, XSLT and SVG. His most recent book is *XSLT 2.0 Web Development* (ISBN 0131406353).

Extending Thunderbird: the Best of All Worlds

Randall Wood explains how to extend Thunderbird to suit your wants and needs and provides a look at some of the extensions available.

RANDALL WOOD

In a perfect world, one size would fit all, no one would ever tell you “your mileage may vary” and computer users the world over would be able to work in harmony using the same software tools. This, however, is not that world. In this world, you can put 200 e-mail users in the same room, and no two of them would go about their task in the same way.

So why should folks e-mailing each other be constrained by their software? Enter Thunderbird, an e-mail client that was designed to be extended with little add-ons that provide additional features to the software. This article explores Thunderbird’s open-ended architecture and takes a quick look at some of the many extensions that let you modify Thunderbird to work the way *you* like to work. Even if you already use and love Thunderbird for other reasons (such as its Bayesian spam filtering, which continually improves its ability to recognize spam), Thunderbird’s extensions will convince you that a ride on the wings of the T-bird is a very comfortable ride indeed.

Thunderbird extensions provide many features, from adding new keyboard shortcuts, to tricks for replying to and forwarding e-mail and other, more esoteric functions. Curious? Plunge right in; no need to be shy. Adding and using new extensions is easy, and that’s half their attraction. From the Tools pull-down menu, select Extensions. A window opens showing a list of currently installed plugins, if any, each with an icon. At the bottom, the install, uninstall and update buttons let you choose which plug-

ins to use, and the options button allows you to configure the extension currently highlighted under the cursor. The options button is enabled only if the extension you currently have selected has any options to configure—some extensions do not.

HOW TO GET EXTENSIONS

If you don’t have any extensions, click the Get more extensions link at the lower right of the window. Then, Thunderbird opens up your default Web browser and goes to the Web site <http://addons.mozilla.org>, where you can browse through available extensions. Of course, you can just as easily navigate your Web browser to that Web site yourself and start browsing. If, for some reason, the Get more extensions link in the extensions dialog does not start a browser, then do just that.

Once you get to the Thunderbird extensions portion of the site, you’ll quickly come to appreciate the diversity of extensions available to you.

Adding an extension to Thunderbird is as easy as downloading a small file to your computer and then installing that file using the Extensions dialog. The file you download will have the extension .xpi.

Select an extension you like from your browser. If you pick one from the most popular list, you will be redirected to the download page X or Y. If you are browsing through the extensions by category or “all”, you will need to click on More Info to get to the download page.

You should see an Install Now package. Right-click on that package and select Save Link As... from the pop-up menu, and then choose a folder/directory where you want to save this extension. Save it anywhere you like—your desktop would be fine. Once you’ve downloaded the .xpi file, go back to the Extensions dialog you opened in Thunderbird and click the Install button. Navigate to where you’ve saved the .xpi file, then click OK. Thunderbird may or may not warn you “A Web site is requesting permission to install the following item (unsigned) from {URL}. Malicious software can damage your computer or violate your privacy.”

If you believe you trust the creator of the extension, proceed. Click the Install now button and you can rock and roll. Some extensions function immediately, while others ask you to restart Thunderbird so they can be activated.

So what can you do with extensions? Lots. Odds are, someone else has already thought of a trick you have been wishing all this time you could do. Let’s look at a few extensions that make e-mail a little easier to deal with.

ATTACHMENT EXTRACTOR 0.4, BY ANDREW WILLIAMSON

This little extension is one of my favorites. It allows you to extract attachments from selected messages or whole folders. It can save over existing files, rename a file if it already exists or even

ask you each time. You can opt to have it delete messages, mark them “read” or simply do nothing after it extracts the attachments.

You will need to restart Thunderbird after you install this one. Next, open up the Thunderbird Extensions dialog, select this extension and click on the options button to configure the extension.

Now you will find Extract Attachment options in your Tools menu. You also can right-click on any message and invoke this extension from the pop-up menu.

TB QUICKMOVE EXTENSION, BY FRANK DILECCE

This extension is no longer available on the Mozilla Web site (the last time we looked), but it’s worth finding with Google. It’s available at AusDilecce Extensions (<http://www.supportware.net/mozilla>) and several other Web sites. It lets you assign folders to the key combinations Ctrl-1 through

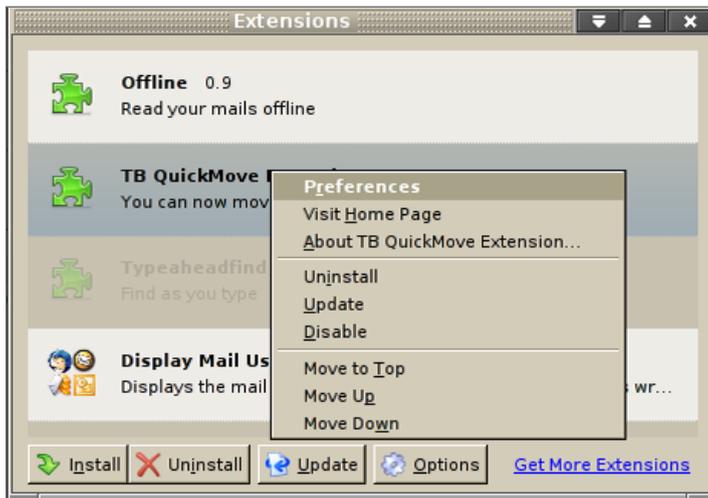


Figure 1. Right-click on the extension icon to configure the extension to your liking.

Ctrl-0. When you have selected an e-mail message, pressing one of those key combinations moves the message to the folder associated with that key combination. The right-click context menu also shows QM message to ... folder as an option. Fast and easy! To configure the key combinations, select the extension from the Extensions menu and either right-click and select Preferences from the pop-up menu or click the Options button.

STACKED VIEW EXTENSION, BY AARON ONEAL

Traditionally, e-mail programs have one pane for the folder list, one for the index of messages and one pane for the message itself. This extension reorganizes the layout of these three panels so that the folder list and message index sit at the left-hand side of your window, one over the other, and the bulk of your window can be used for reading the message. This isn’t quite the same as the three parallel-column layout that Thunderbird provides natively, and in my opinion, it is a much more efficient use of your valuable screen real estate.

Install this extension, restart Thunderbird, and then you can select the stacked view by clicking View→Layout→Stacked View from the main menu. Even if you like this view, you’ll probably want to adjust the size of the panes to suit your tastes.

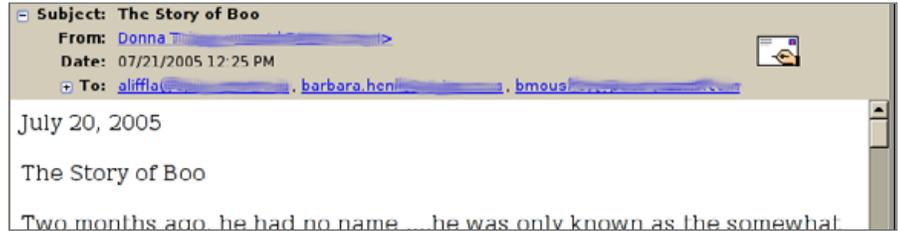


Figure 2. Display Mail User Agent extension shows this message came from a Eudora user.

DISPLAY MAIL USER AGENT EXTENSION 1.0.1, BY CHRISTIAN WEISKE

Finally, a little something for the Thunderbird advocates out there. This extension adds a little icon to the headers of your e-mail messages to show which program was used to write the message, such as Outlook, LotusNotes or Eudora (this information is encoded into almost every e-mail sent, in case you didn’t know). What a great way to identify which of your friends are still suffering with less-flexible software. Help spread the word!

Now that you know where to find extensions and how to install them, have fun shopping! Thunderbird currently boasts more than one hundred extensions that will allow you to shape the program to fit your needs. And once you’ve configured Thunderbird to work just the way you like it, you’ll find you have a hard time going back to any other program. Happy mailing! ■



An engineer and writer by training, Randall Wood has been using Linux and open-source software since 2000. He and his wife currently reside in Washington, DC. His Web site is at <http://www.therandymon.com>.

Google Suggest Toolbar for Konqueror

Add Google Options to your KDE browser with Googlebar.

WILLIAM KENDRICK AND MELISSA HARDENBROOK

Thanks to Vinay Khaitan's Google Suggest Toolbar for Konqueror, Konqueror devotees now have access to many of the same features Internet Explorer and Mozilla Firefox users enjoy with the official Google Toolbar. A free, open-source extension, the Google Suggest Toolbar for Konqueror interacts with Google's services, allowing you to search the Web quickly, translate Web pages, highlight keywords on a page, look up terms in a dictionary or an encyclopedia without leaving the current page, and much more.

INSTALLATION AND CONFIGURATION

The Google Suggest Toolbar is relatively young software (version 0.6 at the time of this writing), and ready-to-install packages are not yet available for many of the major Linux distributions. Your mileage may vary. Some people have had problems getting the plugin to work properly. A new version has been released since I tested it. It may resolve those problems.

You'll have to venture into Geek territory to install Googlebar. This means you need to open a command shell, log in as root, and compile Googlebar from the source code. Don't worry—it's only six little commands. If you're too timid to do this, ask a geek friend to help or simply wait until a package is available for your distribution. If you are feeling cocky and brave, you'll be surprised at how easy it is to compile and install this

program. As I said, it's only six little commands.

There is only one catch. You need to have development tools and some KDE development packages on your system for this to work. See the sidebar "What You Need" for more information.

Assuming you have installed all the tools and libraries you need, here is how to install Googlebar. First, download the tarball from SourceForge.net at <http://sourceforge.net/projects/googlebar> (or, more specifically, follow the Download road until you land on SourceForge's download mirrors page, and select the appropriate mirror for your state, country or continent). Your browser will give you the option to open the file or save it. Save it to your Home directory.

Next, open a terminal program, such as KDE's Konsole, which is typically found in the System applications submenu, and type the following command:

```
$ tar -xjf googlebar-0.6.tar.bz2
```

This unpacks the various source code files in the tarball you just downloaded and moves them into their own subdirectory, googlebar.

Next, switch into that directory by typing:

```
$ cd googlebar
```

The next three steps are fairly common to all open-source programs for Linux: configuration,

WHAT YOU NEED

You may need to install additional packages before you can install this extension. If you do not already have them installed, you will need some common development packages, such as g++, the C++ compiler. You also may need development packages specific to X11, such as x-dev or another similar name, and development packages for KDE, such as libkonq4-dev. Package names may vary from distribution to distribution. Many distributions include meta-packages for development and KDE development. A meta-package is just a simple way to download all the packages you'll need by installing one package name. If your distribution groups packages into these types of meta-packages, it should be obvious what you need to install by the names of the packages (and descriptions, depending on the installer you use, whether you're using the Fedora installer, Synaptic, Kpackage and so on).

compilation and installation. On a typical system, the following commands, without any alteration, should *just work*. If they do not, consult the Google Suggest Toolbar documentation (that is, the README file) for more help. Take note: a lot of information will fly by when you run these! Ignore

this information unless you hit a snag, in which case it might be useful for trouble-shooting.

Type:

```
$ ./configure
```

Then type:

```
$ make
```

Next, you'll need to switch from a normal user to your alter-ego, the superuser (a.k.a. root), who has complete control over the computer. Type:

```
$ su
```



Figure 1. Google Suggest Toolbar Additions to Konqueror

When prompted, enter your system's root password.

Finally, type:

```
# make install
```

This should automatically install the extension where Konqueror can find it.

At this point, assuming everything went smoothly, you can switch back to your old, less-super self (type `exit`, press `Ctrl-D` or close the terminal window) and launch Konqueror.

To activate the Google Suggest Toolbar, head to Konqueror's Settings menu and choose Configure Extensions... (Figure 1). You may need to quit and restart Konqueror. If you already have a Search Bar

Plugin installed, you may want to uncheck that box. You won't really need it after you start using Googlebar.

FEATURES AND USE

After you've installed the extension, you'll notice three new additions to your Konqueror toolbar: two drop-down buttons and a text entry field (Figure 1).

Access the extension's options window through the new G-shaped drop-down button, which also houses a number of quick links to various Google service home pages (Figure 2).

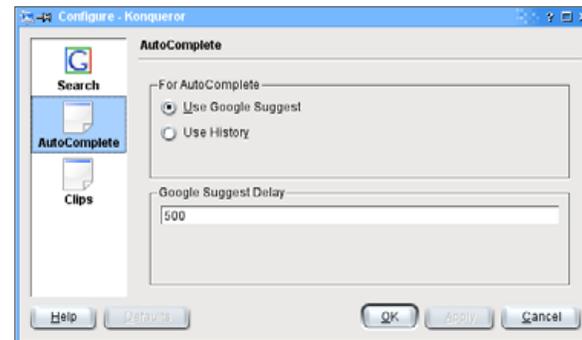


Figure 2. The Google Suggest Toolbar's Options Window

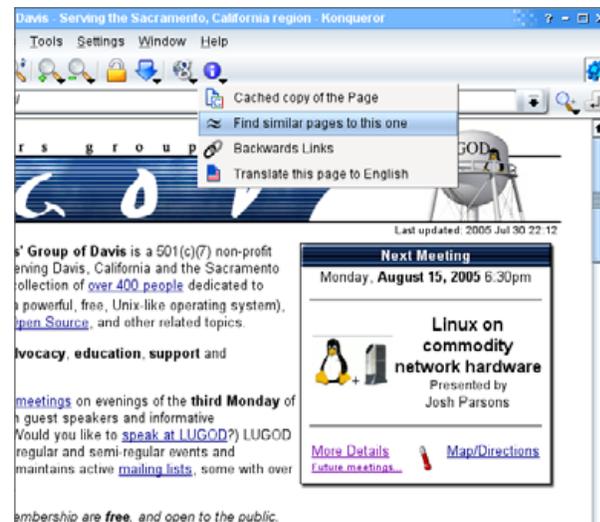


Figure 3. The Google Suggest Toolbar's Page Info Button

The new I-shaped drop-down button teaches Konqueror a few neat tricks, like fetching Google's cached pages so you can compare what's on a page now with what was on a page before (Figure 3).

Also with the I-button, Google will point

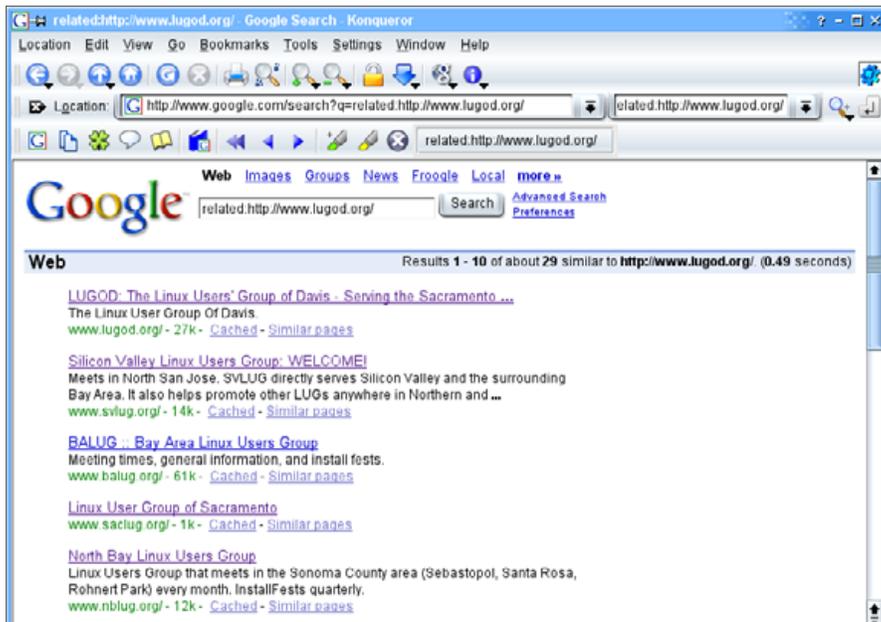


Figure 4. Looking at a List of Related Sites

Konqueror to “similar” pages (Figure 4), back-trace the links and show you all the roads leading to the page, or even translate the page into English with Google’s translation tool.

Use the text entry field to search the Web (and elsewhere—more on this later) for keywords. As you type, a menu drops down, offering you a real-time generated list of common terms you might be looking for (Figure 5).

For example, type “health”, and the menu offers suggestions like “health care” and “healthy eating”. If you go on to type “insurance”, you’ll see phrases like “health insurance quotes”, “health insurance providers” and “health insurance companies”. You can quickly choose any one of these, or simply ignore all the suggestions and continue typing.

Once you begin typing, you’ll immediately notice a new toolbar appear. This is the actual Google Toolbar for Konqueror.

Click one of five buttons on the far left of the Google Toolbar to search the entire Web quickly, the current Web site, Google Groups discussions or other Google search engines. There’s even a four-leafed clover button, for when you’re feeling lucky.

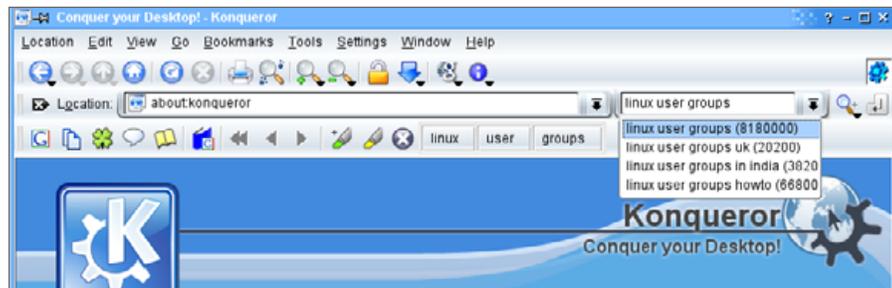


Figure 5. As you type, suggested keywords, as well as a new toolbar, appear.

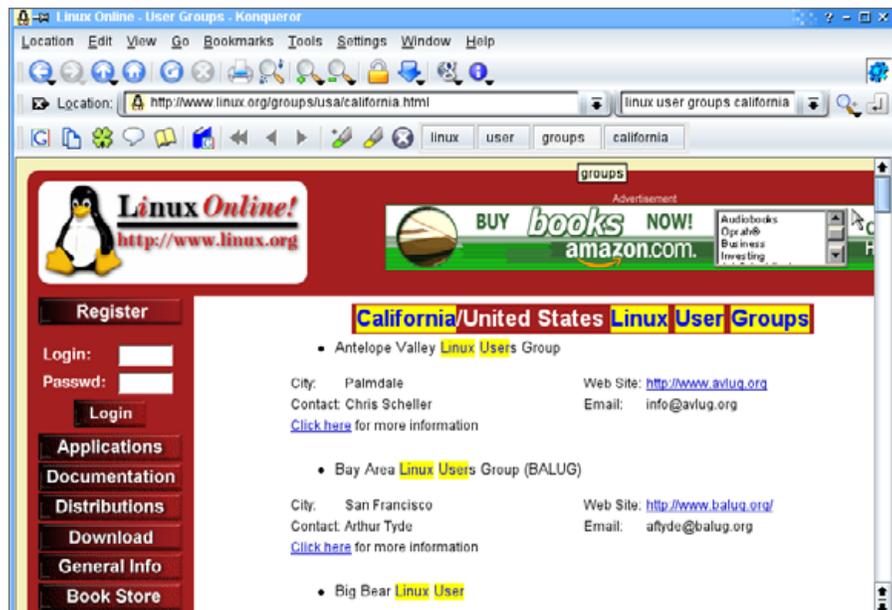


Figure 6. Highlighting Keywords on a Page

You’ll also notice that each word you typed in the text entry form is now a button on the Toolbar. Click on one, and you’ll see each acts exactly like the browser’s Find function.

The green and yellow highlighter buttons are nifty little helpers. Click the yellow highlighter button to highlight all your keywords, everywhere they appear on the Web page (Figure 6). Select a word or phrase with the mouse, and then

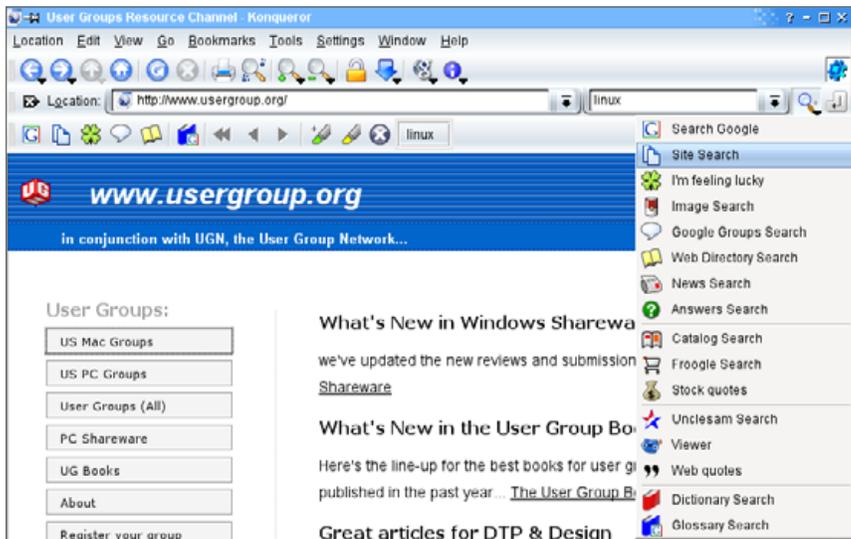


Figure 7. Other Search Options

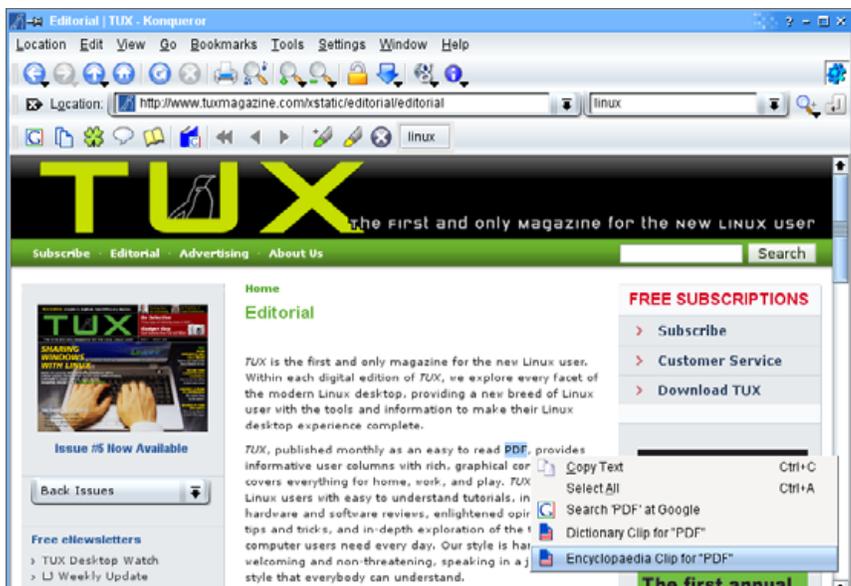


Figure 8. The Google Suggest extension adds some useful items to the right-click menu.

click the green highlighter button to search the Web for that word or phrase (yes, this replaces the current keywords, if any).

Click and hold the magnifying-glass button next to the new text entry field to access even more Google search engines: images, news headlines, products you can buy on-line (Froogle) and off-line (Catalog), stock quotes and more (Figure 7).

Along with these obvious additions to Konqueror, this extension also adds three new items to the context menu that appears when you right-click in the Konqueror window. Select a word or phrase with the mouse pointer, and then right-click to access these new features. Unsurprisingly, you'll be given the option to search the Web for the selected term with Google, much as if you'd clicked the green highlighter button. Additionally, you can request that Konqueror display a dictionary definition or an encyclopedia entry for the selected word or phrase (Figure 8).

The dictionary and encyclopedia entries appear in a small pop-up window, rather than forcing you on a browsing detour and re-routing you to a new page or cluttering your screen with a new browser window (Figure 9).

Download the Google Suggest Toolbar for Konqueror today, and see for yourself how one extension adds valuable functionality to an already fully-loaded Web browser. It's worth the journey into command-line country. ■

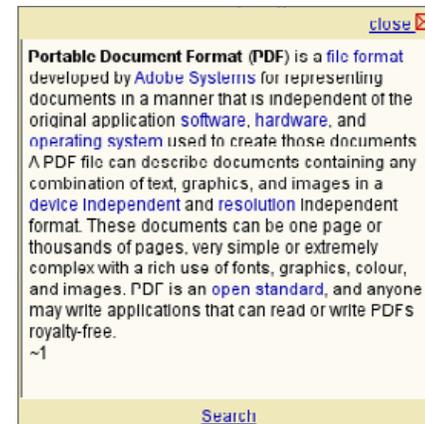


Figure 9. Viewing an Encyclopedia Clip for a Term



William Kendrick is a KDE addict, Linux evangelist and works as a cell phone video game programmer in Palo Alto, California.



Melissa Hardenbrook is a night owl, a freelance writer, a sociolinguist living in a computational linguist's world and Mrs William Kendrick, among other things.

THE FIREFOX WAY

If you're a Firefox fan, be sure to check out the official Google Toolbar for Firefox: <http://toolbar.google.com/firefox>. Or, check out the Open Source Googlebar: <http://googlebar.mozdev.org>.

The World Beyond KDE and GNOME

This is the first in a series of articles exploring how to mix and match components to get functional lightweight desktops.

JOHN KNIGHT

In this brand new series, we'll explore lightweight desktops as an alternative to KDE and GNOME. The benefits of using a lightweight desktop are many, but they are especially good for users of slower machines, where large desktops will be clunky and not very usable. Lightweight desktops can be ideal for some laptops too, especially older models with processors that aren't state of the art and in cases where the installed memory is somewhat lacking (256MB of RAM, for example).

Regardless of the kind of computer you are using, a lightweight desktop brings benefits in speed, resources and loading times. It clears out some of the on-screen bulk that can sometimes feel in the way with GNOME and KDE. You even can mix and match different desktop utilities such as file managers, system monitors and program launchers to experiment with different styles of desktops and customize it to your tastes.

Sounds pretty good, right? Is there a catch? Well, yes. By using a trimmed-down desktop, you may miss out on many features included in the bigger desktops if you've grown accustomed to using them. You also lose a degree of user-friendliness, eye candy and customization in the process. But don't let this put you off. For many people, the features in bigger desktops are overkill and get in the way by slowing down the system.

There could be a desktop out there that's perfect for you, and we'd like to explore a few of

them. Today, we explore IceWM.

IceWM has a familiar feel for Windows users without sacrificing features unique to Linux, such as multiple virtual desktops. IceWM also has its own unique style. There are a decent number of configuration tools, and IceWM is in many ways interoperable with other desktops, like GNOME. All in all, IceWM is very customizable and fairly lightweight. It has a well thought-out interface and a lot of look-and-feel themes available.

FEATURES

Let's look around the basic desktop. Keep in mind that what you see when you first start IceWM may be quite different than what someone with another Linux distribution sees. Each distribution sets a default theme for IceWM, and that default theme is what determines what IceWM looks like when you start it the first time. See Figure 1 for a possible default look and feel.

Generally, you will see a taskbar at the bottom of the screen. This taskbar is rather like that of Windows or KDE. At the bottom right are some nifty features—from right to left: a hide button to clear the screen when the bar is in the way, a clock with the date and the time, and three meters that measure your CPU usage, your net-



Figure 1. A Default IceWM Theme with My Own Custom Background

work activity and your Internet throughput.

On the bottom left (from left to right) is the usual menu button (or Start button in Windows), a button for minimizing all windows and a KDE-like windows list. This lists all of your open windows on all desktops. You can see buttons for switching between four virtual desktops. This should make KDE users feel right at home and should speed up desktop productivity. There is a keyboard shortcut to make it easier to switch between desktops: press the key combination Ctrl-Alt-left arrow to move to the previous virtual desktop, and Ctrl-Alt-right arrow to move to the

next virtual desktop.

IceWM has some downsides, however. IceWM lacks desktop icons and a file manager to go with them. When running multimedia applications like Xine or MPlayer, you may often run into problems going to full screen (like a taskbar that stays in view or a window with a forced border). There are ways to hide the taskbar, but this still will be an annoyance for those who use these applications often throughout the day. Regarding desktop icons, most minimalist desktops don't include icons anyway, so we'll show you how to add them later.

ICEWM PREFERENCE MANAGERS

There happens to be a number of preference managers for IceWM, mainly IcePref, IcePref2 and IceWM Control Panel. These packages are generally available for almost all distributions. Use your favorite package manager to hunt them down and install them.

A quick look around these preference managers will really change your views on IceWM. They greatly expand what you are able to do with the desktop. You can turn on/off the CPU/network monitors, add or change the desktop background, auto-hide the taskbar, change fonts or themes, assign mouse-button actions—the list goes on. Any of the three significantly add to the desktop, but some are better or easier to install than others, so we look at each one by one.

ICEPREF

IcePref is the original preference manager and still does a decent job. Of all three managers, this was the only one I could get working on my PC—even after hours of experimentation (I had to use another distro to get the other two working). IcePref is a lot more minimalist than the others and not so

feature-laden; the basic options are there, but the experimental options, like sound events, are not. It's well worth trying the other two first, but if they don't work, IcePref is still pretty decent.

ICEPREF2

IcePref2 sits in the middle: the second easiest to install, the second-most featured. IcePref2 is a remake on the original, cleaning up the base and re-organizing things. It adds a few extra features, like the ability to import your KDE menu. It reworks some of the older features to make them more usable. If you look in the tools menu, you will find an option to run some external programs, provided you have them installed. There is the ability to

make your own themes, edit the menu, design sounds schemes and run the control panel (the next manager). Of all three, IcePref2 is probably the best to have, provided you can get it installed. See Figure 2 for a sample of what IcePref2 looks like.

ICEWM CONTROL PANEL

This is the hardest to install and the most fully featured. It requires running a script to install the package, but it doesn't work on all systems. It relies on a number of scripts and packages that you may not have installed and that may not be available for your distribution.

IceWM Control Panel acts more like a system manager than the others, and invokes common

system configuration utilities, provided you have them installed. The general IcePref options are available, but this focuses more on things like printer, PCMCIA, screensaver and disk configuration. It is definitely a useful tool but is more of a complement to IcePref2 than a replacement for it. See Figure 3 for a look at the control panel.

When changing the desktop background, you will probably find that nothing happens; fire up a terminal and enter the com-

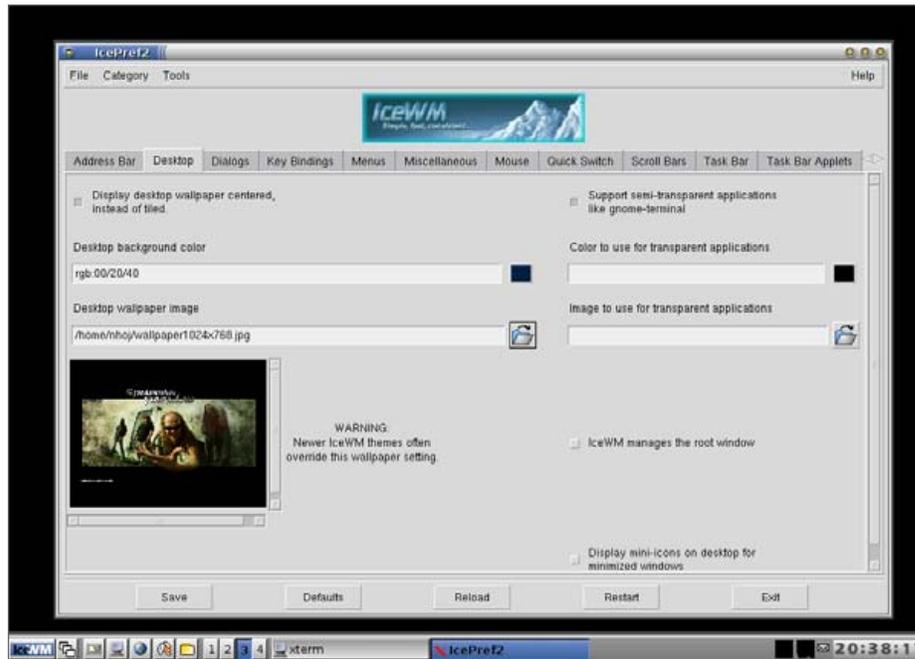


Figure 2. IcePref2 Flexing Its Muscles

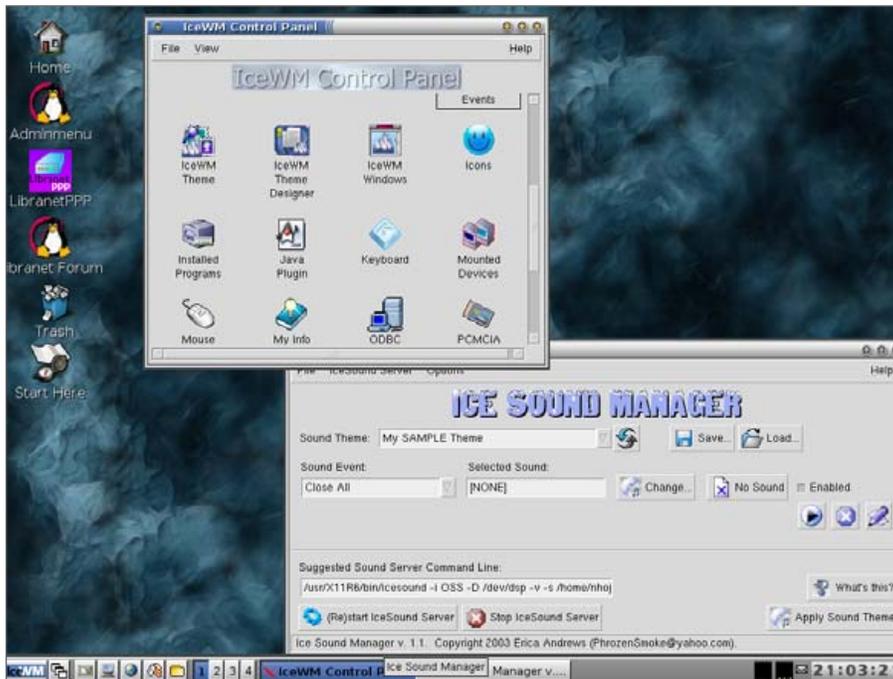


Figure 3. The Extended Options Given with IceWM Control Panel

mand `icewm`. IceWM now starts up with the new background every time (or just restart IceWM if this doesn't work). A number of the features included with IcePref2 and IceWM Control Panel—like sound events—work only with the experimental version of IceWM, so if these are important to you, choose IceWM Experimental in your Session menu.

ADDING A DESKTOP FILE MANAGER

Unfortunately, IceWM doesn't come with a desktop file manager with icons on the screen, which can be a pain for a lot of users. It is very common for lightweight desktops not to have desktop icons though, as it helps cut down on loading

times and your PC's resources. Fortunately, desktop icons can be added to almost any desktop, no matter how minimalist it may be. We'll be looking at the three choices for adding file managers: Nautilus, Konqueror and DFM.

NAUTILUS

Definitely the heavier option but fully featured; GNOME users will be right at home, and both GNOME and KDE users will probably have its existing desktop icons. This is what Libranet uses for their custom desktop—

IceWM combined with Nautilus. This combination makes a very strong environment without having to go to the more bulky GNOME. Even without all the bulk of GNOME, Nautilus is not a lightweight file manager, so there is a definite performance cost in using Nautilus over something like DFM. This solution is not recommended for slower machines.

KDESKTOP

Obviously, the desktop manager from KDE will make KDE users most comfortable. Kdesktop is an extremely rich desktop that automatically uses the Konqueror file manager (and it automatically uses your KDE-defined desktop background).

Konqueror has features out the wazoo. It also consumes a lot of resources to support those features, so it is not a lightweight choice. This solution is not recommended for slower machines.

DFM—DESKTOP FILE MANAGER

DFM is an older project designed to be familiar to OS/2 users. The interface is still fairly user-friendly and shouldn't be difficult for new users or Windows users to learn. DFM is much more lightweight than Nautilus and is therefore a much better choice for people with slow machines or machines with little RAM installed.

CREATING AND EDITING YOUR STARTUP FILE

You'll probably need to create your own startup file to launch your favorite desktop file manager. The startup file is a useful tool in IceWM, as it allows you to add on external programs so that you can customize your desktop. The sky is the limit as to what you want to do with the startup file in order to customize your desktop. You can start your favorite application automatically, add desktop icons, or create a strange desktop hybrid (like adding KDE's Kicker program). You can add almost any program you like, just make sure you press Enter to add a new line after each one. Remember also that every program you add consumes resources. You may reach the point where your custom desktop is just as resource-hungry as KDE or GNOME.

It can be a little tricky to create a startup file because it is in a hidden directory. Navigating hidden directories can be complicated in itself, especially if you've never done it before. Therefore, we cover the steps to create the startup file with two popular file managers, Nautilus and Konqueror. Doing this takes four steps: navigating to the

directory, creating the file, editing it and flagging it as executable. Nautilus is the more difficult of the two, so we tackle it first.

NAUTILUS

If you have Nautilus in your IceWM menu, it probably is under the Gnome→Home Folder. If you don't have Nautilus in your menu, open a terminal and enter the command `nautilus --no-desktop`.

Once in Nautilus, click on View→Show hidden files. You should now see a bunch of new directories that start with a full-stop; in this case, double-click on `.icwm`. Now in a blank space, right-click and choose Create Document→Empty File.

Rename the file to `startup` and right-click on it, then choose Open with Other Application and enter `gedit` in the new dialog box (or if you prefer using another editor, such as `nedit` or `gvim`, enter that command instead).

The editor should now appear. Enter `nautilus --no-desktop` in this file, save and exit. This starts up Nautilus, which has a boat load of features, but it won't show pretty icons in the folders or put icons on your desktop.

If you want to see pretty icons in the folders or on the desktop, you need to enter two lines in your startup file, as follows. To start only the file manager, use these two lines (don't forget the ampersand for the first command):

```
gnome-settings-daemon &
nautilus --no-desktop
```

To get the full-blown desktop with the correct icons, enter these two lines:

```
gnome-settings-daemon &
nautilus -n
```

If this doesn't work for you, your distribution may have placed the `gnome-settings-daemon` program somewhere your distribution can't find by default. One of the most likely alternative locations is `/usr/libexec`, so try this instead:

```
/usr/libexec/gnome-settings-daemon &
nautilus -n
```

(Or, enter `nautilus --no-desktop` on the second line, according to your preference.)

Now right-click on `startup`, choose Properties, go to the Permissions tab and check the Execute box in the Owner section. After all that, `startup`

should now be ready to go. Restart IceWM, and Nautilus should start automatically. See Figure 4 for an example of how your system should look.

KONQUEROR

The Konqueror file manager is a lot easier to deal with. Konqueror probably is under KDE→Home Folder if you have one in your IceWM menu. If not, simply open up a terminal window, type `konqueror` and press Enter.

Click on View→Show Hidden Files and make your way to the `.icwm` directory. Once inside the `.icwm` directory, right-click on an empty space and choose Create New→File→Text File. Click on the

file to edit it, or if it opens inside the window, right-click on it and open it with an editor of your choice. Type the command `kdesktop`, press Enter, and then save and exit the text file. Now you have to flag it as an executable file. Right-click on the icon for the `startup` file you created and choose Properties. Now click on the Permissions tab and check the `Is executable` box. The `startup` file should now be ready to go. Restart IceWM, and Konqueror should start automatically.

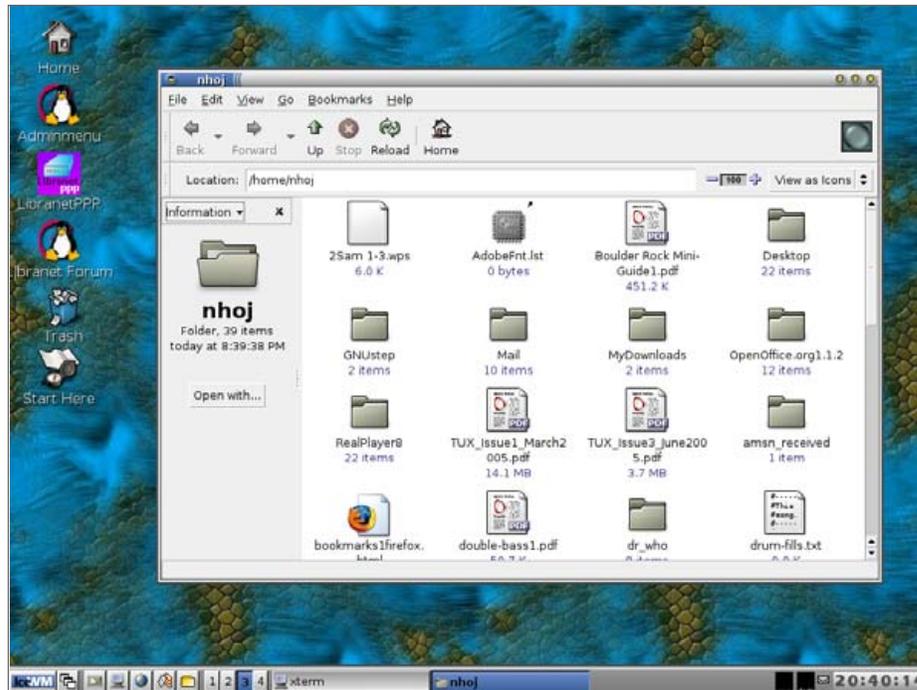


Figure 4. IceWM with the Nautilus Desktop and File Manager

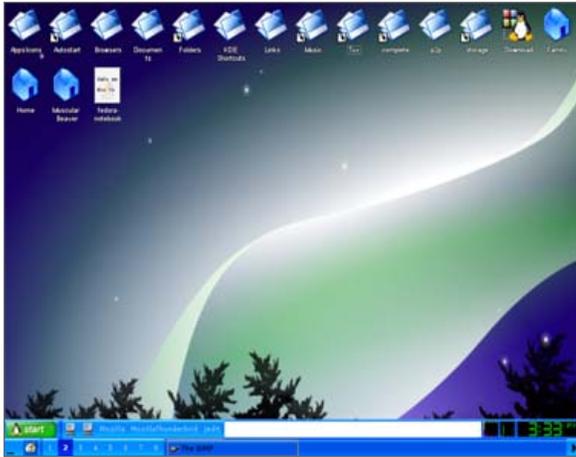


Figure 5. A Uniquely Configured IceWM Running with kdesktop

Why do you start up kdesktop instead of konqueror? Because kdesktop is the desktop program that puts icons on the screen. Konqueror is just the file manager/Web browser/coffee maker (it has a *lot* of features). If you want only the file manager without the desktop icons, then enter konqueror instead of kdesktop. This gives you basically the same result as entering `nautilus --no-desktop` instead of `nautilus` (see above).

DFM

Follow the same instructions above for either Nautilus or Konqueror to create a startup file. There is only one exception. When you get to the part where you edit the contents of the startup file, type `dfm` as the command instead of `nautilus --no-desktop` or `kdesktop`. Restart IceWM in



Figure 6. IceWM Running DFM and a Program (XMMS)

order to launch the `dfm` file manager. See Figure 6 for an example of how your desktop may look.

AT THE END OF THE DAY...

IceWM is logically organized and a very capable desktop. Most users will be comfortable with this desktop, but some may be put off by a few flaws. In its unmodified form, it is very bland to look at and you will most certainly want to add a backdrop of some sort. The menus presented are generally good, but there's no auto-scrolling with really long menus, meaning the user will have to resort to pressing the down arrow on the keyboard. Plus, the old and dictatorial window-manager will become a nuisance for users who do a lot with video applications. These flaws aside, IceWM is still a very strong choice for most users; it provides a lot of features without taking too much of a CPU toll—highly recommended. ■

How Do I Run IceWM?

Choose it in your Session menu at startup.

Will it come with my distribution?

Maybe. It is usually included with Mandriva, Libranet and SUSE. If it is not installed automatically, it is almost always available for your distribution. Just install it with your favorite package manager (Synaptic, Kpackage, YAST2 and so on).

RESOURCES

DFM Home Page: <http://www.kaisersite.de/dfm>.
DFM is available in the Debian archives or at <http://Freshrpms.net>.

IceWM Home Page: <http://www.icewm.org>

IceWM Addons:
<http://www.phrozensmoke.com/projects/icewmcp/IcePref2/index.php>



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

OpenOffice.org 2.0 Calc

Fun with the upcoming OpenOffice.org Calc 2.0.

XAVIER SPRIET

Last month, I reviewed Impress, a complete presentation editing and publishing tool that is included in the upcoming OpenOffice.org 2.0 suite.

I was actually quite impressed with Impress and decided to take Calc for a spin this month. If you are not familiar with Calc, it is the spreadsheet application for OpenOffice.org. This review is of the version of Calc that comes with the beta version of OpenOffice.org 2.0. For a more thorough

explanation of how to use Calc (version 1.1.3 in this case), see Kevin Brown's article "How to Use the OpenOffice.org Calc Spreadsheet, Part II" in the August 2005 issue, page 23.

Calc allows you to manipulate data stored in a grid through the use of formulas that can be applied to the cells. Not only can you apply a formula on an individual cell, you also can apply it on an entire range of cells at once. This concept is

the same for basically every spreadsheet editor out there, which makes these applications ideal for maintaining personal budgets, quickly creating basic forecasting documents, or making calculations based on large amounts of data in a dynamic way, without knowing anything about programming.

On the Windows platform, the Calc counterpart is Microsoft Excel; although to be fair, a lot of the power of Excel comes from its

tight integration with VBA (Visual Basic for Applications), which allows VBA programmers to create some impressive tools in their spreadsheets. This is beyond the scope of this article, and I assume you are more interested in the more conventional use of spreadsheets.

WHAT DOES CALC DO?

I've just explained that a spreadsheet editor lets you enter values into grid cells and use expressions and formulas to manipulate that data. You may ask, "this sounds all good and great, but what does it do that my calculator doesn't?"

Meet Adam.

Adam is an accountant and loves playing with numbers. He knows many formulas that can provide very useful information from these numbers, and he has learned to use Calc at work to create interesting reports showing his managers where their money is going.

Every year, Adam's company reviews the performance of their employees, and that bonuses as well as raises are given to employees. Adam knows that the

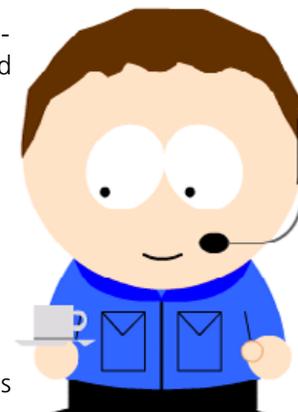


Figure 2. Adam

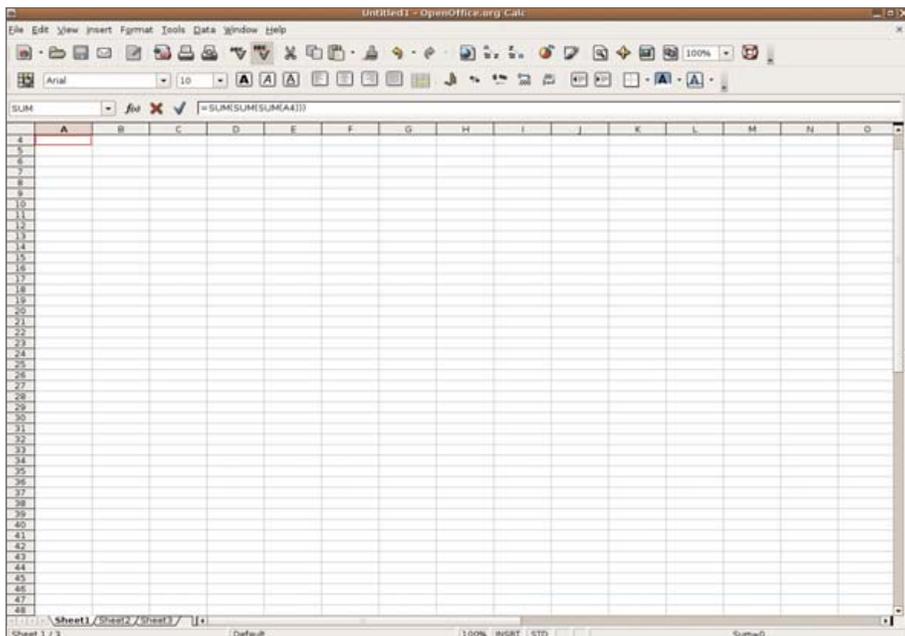


Figure 1. OpenOffice.org Calc 2.0 (beta)

typical raise at his company is usually between 4% and 8%, and bonuses are based on profit, and it has been a good year for the company.

Because Adam loves Calc, he created his own spreadsheet to manage his budget, income and expenses, but just like you or me, he is very excited at the idea of getting a raise.

He wants to plan how that raise will affect his budget and his lifestyle, but he does not know the exact amount of the raise or the bonus (if any).

CALC 101

For those of you who have used a spreadsheet editor in the past, it should be obvious that a spreadsheet like Calc is ideal for addressing Adam's concerns. Adam's financial Calc spreadsheet might look a little something like this:

- One table with the title Expenses has the headers Item and Cost. All the rows in this table describe expenses (Utilities→120, Entertainment→240 and so on).
- One table titled Income has the headers Item and Amount. The rows of that table break down Adam's income (salary, investments, interests and so on).
- The Variables table contains rows of key→value pairs that are used throughout the spreadsheet to avoid re-calculating too many elements (base salary, money in wallet and so on).
- The Summary table is a report that contains statistics. He uses this table to figure out where his money goes and to make his projections for the next few weeks.

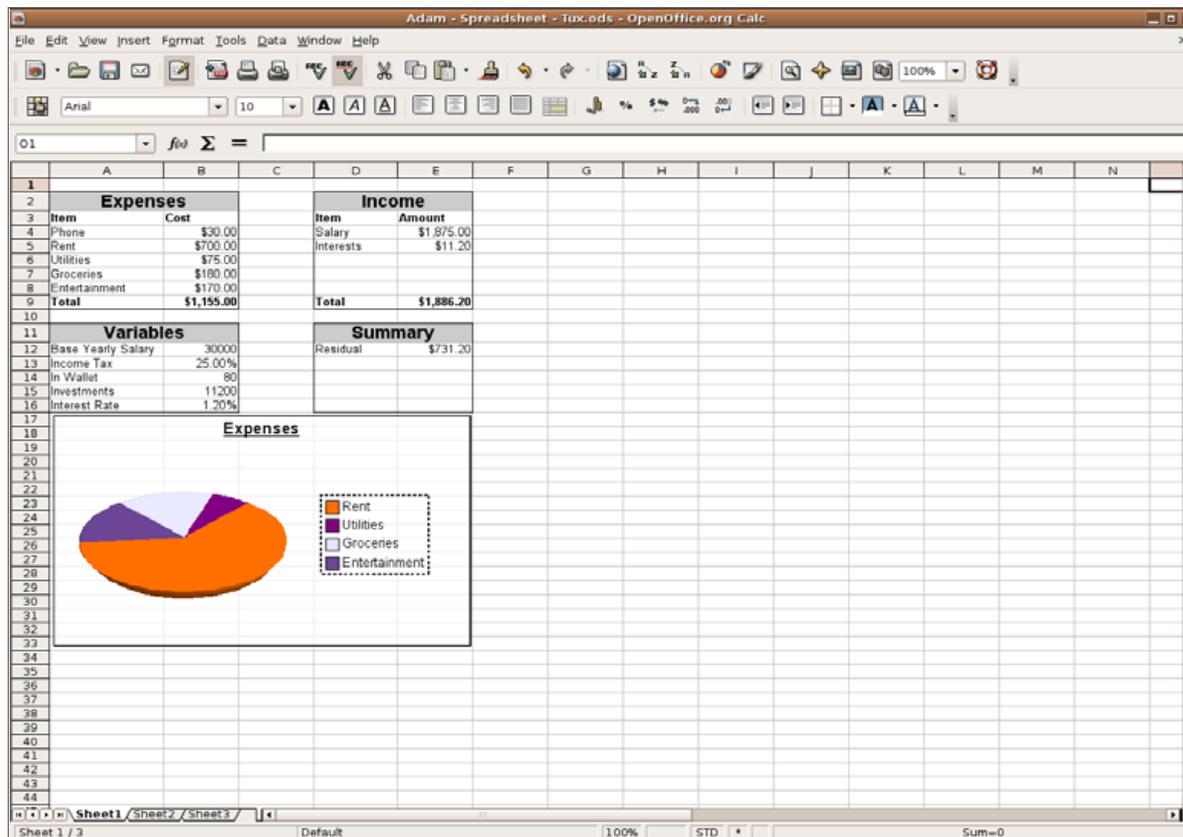


Figure 3. Adam's Financial Spreadsheet

To perform calculations, a spreadsheet editor needs to obtain values from cells. As a human being, the most logical way to tell the program on which cell it should operate is by providing it the coordinates of the cell (for example, A2, C4, X17). So in Adam's financial sheet example, he entered a few interesting formulas.

The Salary cell in the Income table, contains the following:

$$=(B12*(1-(100*B13)/100))/12$$

Adam loves using big numbers with complex ways to obtain simple results, and he loves to use parentheses.

In Calc, a formula starts with the equal sign. By pressing this key, you automatically enter the formula editing mode. If you click on any cell while you are entering a formula, Calc enters the coordinates of that cell in the edit box. Additionally, you can drag your mouse over multiple cells (select a range of cells) and Calc will add the

Income	
Item	Amount
Salary	\$1,875.00
Interests	\$11.20
Total	=E4:E8

Figure 4. Building a Formula

amount. His base salary is located in column B12 (Variables table), and the income tax rate is located in B13.

Similarly, he entered the following formula in cell E5: $=B15*B16/12$, which calculates the total interest (B16) for his investments (B15), and divides it by 12 to obtain a monthly amount.

FUNCTIONS AND RANGES

Adam may be fond of numbers, formulas and statistics, but he does not want to spend any more time working out his budget than he absolutely has to. He has entered all these figures in his spreadsheets, and he does not feel like typing an unnecessarily long formula such as this one to obtain his total expenses: $=B4+B5+B6+B7+B8$.

Adam decides to use a function to do this for him. In Calc, functions are pieces of functionality that typically operate on a set of cells. Some functions can take in several parameters, and others have a limited set of parameters. To add numbers together, Adam uses the SUM function. He opens up the Total cell, types the equal sign (=) to enter the formula editor and types SUM(. He then clicks on the cell B4, and drags his mouse all the way to cell B8.

When Adam presses the Enter key, he sees the formula text box filled up with this: $=SUM(B4:B8)$,

range of cells to the formula.

Adam's salary formula deduces the income tax from his base salary, and then divides this amount by 12 to get a monthly

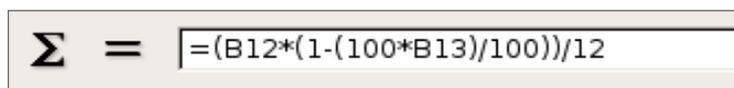


Figure 5. Formula Text Box

and the actual value displayed on the spreadsheet for this cell is \$1,155.00.

You can learn more about all the functions provided by Calc by clicking on the Insert navigation entry and then clicking on the Function List item. This brings up a panel on the left of the screen that you can use to find functions and read their documentation.

PATTERNS

Patterns are logical concepts that we apply in our day-to-day life and usually don't even notice.

If I give you the following sequence of numbers: 1, 2, 3, 4, 5, and ask you what the next number of this sequence will be, you will instinctively answer 6. The thought process is very quick, and 6 seems like the logical choice.

What you really did by answering 6 to the previous question was look at the sequence and establish a pattern that associated each number with its prior. 2 is 1+1, 3 is 2+1, 4 is 3+1, and so it is only logical to conclude that the last element would be one plus its prior.

Computers have a very hard time dealing with patterns, especially when it comes to identifying them. This is precisely why Calc lets the user point out patterns. Let's see how this feature works.

Adam wants to add a variables to his spreadsheet to change his base salary based on a raise amount. He decides to add a new table to indicate possible raise percentages (4–8%). He creates the table and immediately adds values in two of the cells. These values are 4 and 5. Adam then

selects the two cells and clicks on the bottom-right corner of the cell containing the number 5. He then drags his mouse over the next three cells and releases his mouse button. Calc

identified a pattern and added the values 6, 7 and 8 in the cells that were moused over.

All Adam needs now is to find out what his base salary will be for each of the possible raise amounts he might be getting this year. The spreadsheet knows each of the possible raise amounts (4–8%) and Adam's base salary.

In the Raise Amounts table, the first column (which we just created) contains the raise amount. Adam types = in the cell beside the 4% cell, and types in the following formula (assuming that the 4% amount is in the cell G3): $=B12*(1+((100*G3)/100))$.

Raise Expectations	
4.00%	\$31,200.00
5.00%	\$31,500.00
6.00%	\$31,800.00
7.00%	\$32,100.00
8.00%	\$32,400.00

Figure 6. The Raise Table

He can then enter the same formula in the next cell, this time replacing G3 by G4. Technically, he should now be able to select both new cells and drag his mouse all the way to the cell beside the 8% value, Calc should apply the same formula where B12 remains constant (because it is constant between both cells), and G* is incremented each time.

Unfortunately for Adam, Calc did not notice that B12 should remain constant between each

cell. Because Adam can manually edit the formulas for each of these cells, he simply can replace the erroneous coordinates with B12.

CHARTS

You've seen the screenshot of Adam's financial spreadsheet. His spreadsheet featured a 3-D chart that provided a breakdown of his expenses.

To create the expense break-down chart, Adam simply clicked on the Insert menu navigation and selected the Chart entry. A wizard called Autoformat prompted him to specify a range (a table containing the data the chart will illustrate—Expenses in Adam's case) as well as whether or not the first row of the table should be used as legend or data. The second step allows Adam to specify the type of 2-D or 3-D chart to generate, as well as parameters to help him configure what data should be represented and how.

By double-clicking on the generated chart,

Adam was able to change the default fonts as well as the borders and even opacity of the chart frame.

INSTALLATION

Many modern Linux distributions ship OpenOffice.org as part of their standard desktop package. On these distributions, you should look for an OpenOffice.org Calc entry, or preferably, OpenOffice.org 2 Calc.

If OpenOffice.org or OpenOffice.org 2.0 is not installed by default on your desktop, you might be able to run a search for it in the package manager or updater program that comes with your distribution.

If you still aren't able to find or install OpenOffice.org for whatever reason, you can simply download an installer for it at <http://download.openoffice.org/680/index.html>. If you have any trouble with that URL, go to the OpenOffice.org site (<http://www.openoffice.org>)

and follow the instructions for downloading the 2.0 beta version (sometimes referred to as 1.9x).

Once you have completed the download, you should be able to open your file browser, point it to your download directory, and click (or double-click, depending on your configuration) on the file to launch the installer.

If you are still out of luck at this point, don't lose hope! Open up a terminal and type `cd`, followed by the full path of your download directory. You should then type `chmod a+x` followed by the complete name of the file that was just downloaded and press Enter (this will grant execution permission). At this point, type `./` followed by the name of that file (case-sensitive) and press the Enter key.

This should cover most possible cases; however, it is still possible that you might not be able to install OpenOffice.org on your computer for a variety of reasons. You can obtain help by launching an IRC chat client (such as X-Chat, Gaim or Kopete), connect to the freenode.org server and ask for help from more experienced users in channels, such as #linux, for example.■

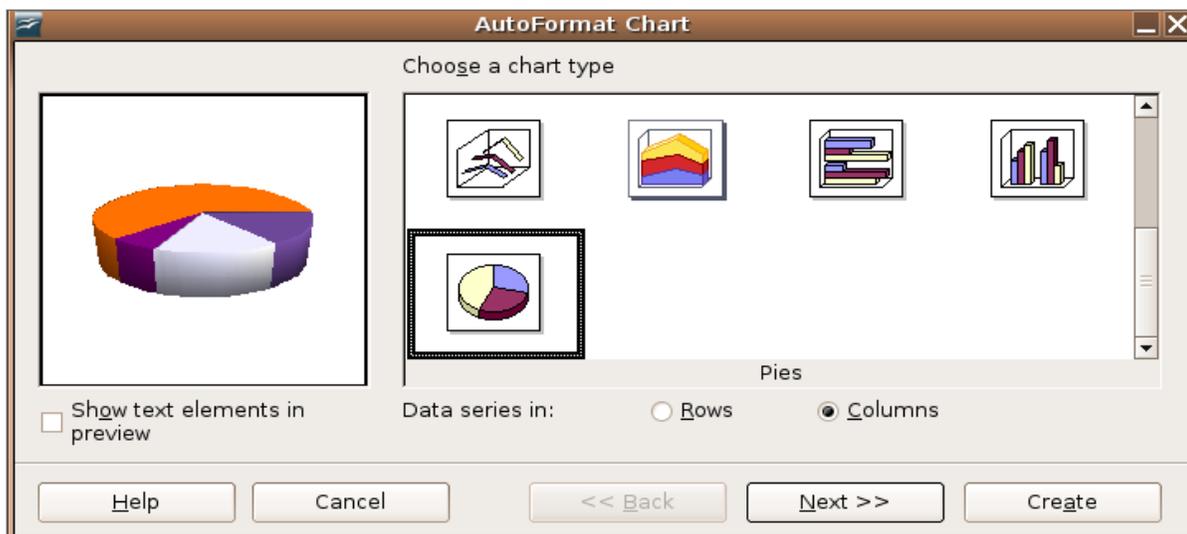


Figure 7. The Autoformat Chart Wizard

About CALC

- **License:** Sun Industry Standards Source License (SISSL), GNU General Public License (GPL) and LGPL.
- **Price:** Free
- **Web site:** <http://www.openoffice.org>



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Gadget Guy: Power to the People

SEAN CARRUTHERS

It doesn't matter what operating system you work with when you turn on the computer: when it comes right down to it, everyone uses electricity.

For notebook users, power is a constant concern, especially for long-haul travelers; you often see travelers perched in uncomfortable seats while waiting to catch their flight, not because it's the only seat left, but because it's the only seat with a power outlet nearby. It's not only notebook users though. With the proliferation of gadgets of all types—including cell phones, PDAs and MP3 players—power is often in short supply for people on the go.

If you're one of those gadget fans who's always casing the joint looking for power outlets, here are a few handy-dandy gadgets to help keep you out of trouble—and topped up with electrons.

ELECTROVAYA POWERPAD

<http://www.electrovaya.com>
\$249 US and up

If you've ever tried to use a notebook on a cross-country flight, you probably already know that the battery tends to run dry less than halfway through the trip. It's even worse if you're making an overseas jaunt, especially if you don't luck out and secure a seat with a power connector.

Well, now you don't have to worry about running out of juice mid-flight. Electrovaya's

PowerPad lineup of external batteries is designed to sit directly under your notebook like a notebook coaster, providing up to 24 hours of additional runtime before needing to be recharged.

How does it do it? The PowerPad piggybacks onto the power connector that comes with your notebook; you plug the PowerPad in to your notebook's power jack, and then plug your regular power adapter in to the back of the PowerPad's jack. The PowerPad charges up whenever you've got the AC adapter plugged in to the wall; when you yank out the AC adapter and hit the road, the power flows back out of the PowerPad and into the notebook. To the notebook, it still looks like it's plugged in to external power, until the PowerPad runs out, at which point your notebook will use up the two or three hours left in its own battery.

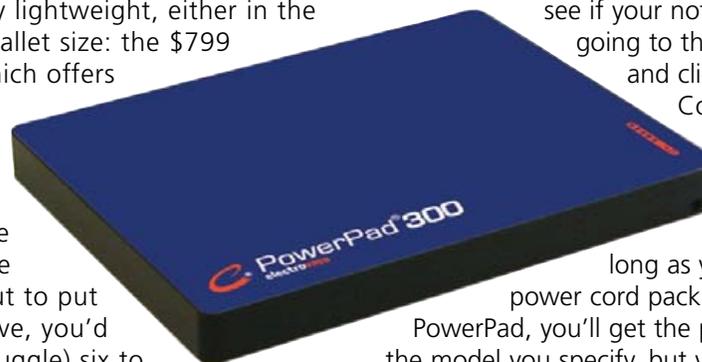
The biggest problem with the PowerPad is that it's not exactly lightweight, either in the backpack or the wallet size: the \$799 PowerPad 300 (which offers up to 24 hours of runtime) checks in at more than six and a half pounds—about the same weight as the notebook itself. But to put that into perspective, you'd have to buy (and juggle) six to

eight regular notebook batteries at \$150–200 apiece to achieve what the PowerPad 300 manages in one single battery. Another way of keeping it in perspective is to note that you can potentially run your notebook for three eight-hour work days, with nary a power outlet in sight, while you're plugged in to the PowerPad 300. How's that for power?

If you're looking for something a little leaner, the PowerPad 120 and 160 weigh and cost less, and consequently offer less runtime. But even the PowerPad 80, which has a smaller form factor better suited for use with subnotebook computers, offers enough extra power to keep you going through that cross-country flight. In most cases, you don't have to go for the top-of-the-line model if you want to stay powered up.

The PowerPad is compatible with most of the models available from the major brands, as well as some of the smaller companies. You can check to see if your notebook is supported by going to the Electrovaya Web site and clicking on the Compatibility List link.

Once you have your PowerPad, you also can use it with other notebooks, so long as you have the proper power cord pack. When you buy the PowerPad, you'll get the power cords suited for the model you specify, but you always can buy



additional connectors and swap between notebooks. (One at a time only, please.)

As with all battery technology, the PowerPad requires a bit of maintenance. In other words, you can't just haul it out once a year for your annual trip to Europe; you'll have to charge and discharge it every so often to make sure the lithium polymer stays ready to use. If you're only a casual traveler, it may be a bit of a bother, but for those who know airports almost as well as they know the supermarket, it won't be a problem at all.

SOCKET MOBILE POWER PACK

<http://www.socketcom.com>
\$149

If you're forever juggling eight different gadgets, each of which requiring a power adapter, you might want to check out the Mobile Power Pack. It's a Lithium Ion battery that's slightly larger than a deck of playing cards or an audio cassette, with a jack on the bottom for the included AC power adapter and a USB port on the top for connecting up your gadgets.

If you have any devices that get their power directly from the USB port, all you have to do is plug them in to the top and wait for them to charge. The Mobile Power Pack also comes with a number of adapters, for items like the iPod, recent Palm handhelds, Pocket PCs, various cell phones and more. The whole shebang comes in its own travel pouch, so you can keep



everything together in one place when it's not in use. The battery even comes with a clip-on protective leather case so you can wear it on your belt while it's charging your gadgets.

The big downside for the Mobile Power Pack is that you can recharge only one device at a time, and if you're constantly topping up your gadgets, you'll have to recharge it regularly. But for the benefit of getting rid of all of those other power cords, it may well be worth it.

VOLTAIC BACKPACK

<http://www.voltaicsystems.com>
\$229

If you want to charge up your gadgets, but spend extended periods away from power outlets, it may be time to go solar.

The Voltaic Backpack would look like a regular backpack if it weren't for the three large solar panels facing outward. It comes with a number of pockets inside, including one for your laptop, but it also features a number of channels for your wiring, a number of power adapters for your various gadgets and a built-in battery pack for storing the solar energy you collect while you're out and about.

It's worth noting that, although there's a pocket inside the backpack for a notebook



computer, you can't actually use it to charge your notebook. It's compatible with a whole array of portable gadgets, though, including a car cigarette-lighter-style adapter, an adapter with a USB plug and connectors for various popular phones. There are optional adapters available for various other phones and PDAs, as well as a mini-AA/AAA battery charger.

It's also worth noting that the Voltaic backpack is a bit heavy—three and a half pounds—thanks to the inclusion of the battery. It'll feel especially heavy once you load it up with your notebook and other gadgets. Thankfully, the backpack is well-padded and has adjustable straps to make sure you can shoulder the additional weight. ■



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.