# Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

photo: DBduo Photography (Flickr.com)

ARO-PL

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# NEW GRAPHICS SECTION
## LEARN GIMP AND INKSCAPE!

NEW

# Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

# EDITORIAL

## Welcome to another year of Full Circle!

t's April 2012, and that means Full Circle is five years old this month. Time has certainly flown by, but I've enjoyed every issue of it, and I've no intention of stopping. Raise your glasses (of whatever) to another year of Full Circle. Cheers!

Being a birthday edition, I've added a few new things here and there. I'm starting a monthly GIMP series, and I'm joined by Mark Crutch who'll be teaching you Inkscape each month. Our articles join the usual suspects of Python and LibreOffice, and, to round off the HowTo section, we have an article on Prey - which will help you locate a lost/stolen laptop/phone. I hope you never have to use it. Not only do we have the usual Ubuntu Games articles, but Dougn has submitted some Ubuntu Games news, and will, hopefully, supply more news as and when he can. Don't feel left out though, as, like I always say, you're more than welcome to submit your news and articles.

If you're interested in how Full Circle takes shape each month, then have a read of the My Story I've written. It shows you what we're doing week by week.

As ever, Full Circle isn't just me. I want to say a big thank you to all the people who are the unseen heroes of each issue. The writers, the proof readers, the translators, and, of course, you, the readers.

**All the best, and keep in touch!**
*Ronnie*
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## Full Circle Podcast

Released monthly, each episode covers all the latest Ubuntu news, opinions, reviews, interviews and listener feedback. The Side-Pod is a new addition, it's an extra (irregular) short-form podcast which is intended to be a branch of the main podcast. It's somewhere to put all the general technology and non-Ubuntu stuff that doesn't fit in the main podcast.

**Hosts:**
Robin Catling
Ed Hewitt
Dave Wilkins

[http://fullcirclemagazine.org](http://fullcirclemagazine.org)

AUDIO MP3     AUDIO OGG
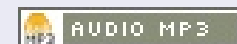
## Torvalds Shortlisted for 2012 Millennium Tech Prize

The Technology Academy Finland has shortlisted Linus Torvalds for its 2012 Millennium Technology Prize, worth over €1 million (US$1.3 million).

There is one other shortlisted candidate for this year's prize, Japanese stem-cell researcher Shinya Yamanaka.

The prize, awarded every two years, has previously honored other contributors to the field of information technology.

In 2004 Tim Berners-Lee won the first Millennium Technology Prize for his creation of the technology underpinning the worldwide Web.

**Source**: pcworld.com

## HP will certify Ubuntu 12.04 on some Proliant servers

LINUX VENDOR Canonical has announced that its upcoming Ubuntu 12.04 long term support (LTS) Linux distribution will be certified for a number of HP's Proliant servers.

HP Proliant servers command significant market share and although Linux vendors such as Red Hat and Oracle have already received certification, Canonical's Ubuntu 12.04 LTS will be the first version of Ubuntu to be certified on a number of HP Proliant generation 8 servers. As part of HP certification, Ubuntu 12.04 LTS drivers and management software will be included as part of HP's Proliant warranty.

**Source**: theinquirer.net

## Ubuntu Linux Comes Preloaded on Two New Laptops

Buying a computer with Linux preloaded is a great option in many ways: Not only do you know everything will "just work," but you also get your "vote" for Linux officially counted as a concrete sales statistic, thus helping to paint a more accurate picture of the free operating system's true market share.

A few weeks ago [...] a new high-end Linux laptop from ZaReason that's available [was released] with a variety of Linux distributions preinstalled, but this past weekend two more moderately priced contenders from System76 made their official debut. [The Lemur Ultra, and the Pangolin Performance.]

**Source**: pcworld.com

## EPUB

Finally, we have mobile editions of *Full Circle* on the downloads page. At the moment, there are only a couple of issues online, but we're hoping to have back issues online shortly. If you've any problems with the epub file/formatting, you can drop an email to Jens at: mobile@fullcirclemagazine.org

Big thanks to Jens, and the beta testers, for making them a reality.

## Google Currents

**Google Currents** has been released worldwide, so install it on your Android/Apple devices, search for 'full circle' (in the app) and add issues 55-60 to your app. Or, you can click the links on the FCM download page for those issues.

As a follow-up to last month's article, I decided to supply a few more tips and tricks that mesh well with previous articles. I'll cover (briefly) how to configure Conky for Japanese, a reader's solution for ToDo lists, and a useful script for displaying your current terminal colour scheme.

Displaying Japanese in Conky is fairly simple, and consists of the following three steps:
• Override any UTF-8 locale with the setting "override_utf8_locale yes" (minus the quotes)
• Enable XFT (X FreeType) fonts using the setting "use_xft yes" (minus the quotes)
• Then choose a font that supports the language, for example: "xftfont VL Gothic:size=10" (minus the quotes).

This is useful if you, for example, have Japanese in your ToDo list (if it's displayed by conky), in case any of your scripts return Japanese characters, or if you use Japanese in any other way within conky.

A reader, John, recently explained his ToDo list setup to me (while suggesting I write the above Conky tips in an article: done and done), and I thought it was a very versatile way to go about it. As I've explained in the past, my system simply utilizes a python script and a folder of reminder files, meaning I can update it on-the-fly with any text editor. The script John uses, however, offers an Anroid and iPhone app, which is a bit easier to do quickly. The script he uses is called "todo.txt", and is written by Gina Trapani (her homepage is: http://ginatrapani.org/). Combined with the following script (that he found on the Ubuntu Forums – I was unable to find the exact thread, otherwise I'd have linked to it), you can have a nicely formatted list in Conky. The script is here: http://pastebin.com/FnHGkcXw. Once you've added some items to the todo.txt file, you need to simply test the script (and possibly adjust the path to todo.sh), and then add it to conky using, for example, ${execi 60 todo-list} (which runs the script every 60 seconds).

The colours script I use is the last script on this page: http://tldp.org/HOWTO/Bash-Prompt-HOWTO/x329.html. It essentially writes the colour codes to the terminal, resulting in a table of the colours, helping you when you're either customizing your Bash prompt, or else when you're trying to find colours that you like. I save this script in my scripts folder as "colors" and defined an alias within my .bashrc for "sh $pathToColors" (replace $pathToColors with your actual path), to save myself having to write it every time. You can also create a symbolic link in /usr/bin/ or add your script folder to your $PATH, but seeing as the colors only matter for your terminal, it's simply easiest to create an alias. The script looks something like the image shown right.

For anyone interested in the actual colors I'm using, they can be found here: https://github.com/lswest/dotfiles/blob/master/.Xdefaults

I hope that this information has been useful, and, as always, if you have any questions, comments, or suggestions, you can email me at lswest34@gmail.com. If you do email me, please include "C&C" or "FCM" in the subject line. I've been debating whether or not I should do an article of C&C on my configuration files and favourite programs – if any reader is interested in reading that, please send me an email and let me know.



Lucas has learned all he knows from repeatedly breaking his system, then having no other option but to discover how to fix it. You can email Lucas at: lswest34@gmail.com.

I must say, I love my Android tablet. While I use it every day, it's not yet a replacement for my desktop. And I must also admit, most of what I use it for is pretty much what everyone uses theirs for: web browsing, listening to music, watching videos, playing games, and so on. I try to justify it by having apps that deal with grocery and todo lists, finding cheap gas, fun things for our grandson, etc. It's really a toy for me right now. Why use a fancy touch-screen tablet to do your grocery list? Let's face it... it's the cool looks of envy that people give me in the store when they see me rolling the cart down the aisle and I tap my tablet to mark items off the list. Ahh--- the geek factor RULES! Of course, I can use the back of an old envelope to hold my list. But that wouldn't be cool and geeky, now, would it?

Like 99% of geeky married men in the world, I am married to a non-geek woman. A wonderful loving woman, to be sure, but a non-geek who, when I start drooling at the latest gadget, sighs, and says something like "Well, if you REALLY think we need that...". Then she gives me the same look I give her as she is lovingly fondles the 50th pair of shoes at the store.

In all honesty, it wasn't hard to get the first tablet into our house. I bought it for my wife while she was going through chemotherapy. She tried to use a laptop for a while, but the heat and weight on her lap was too much after a while. E-books on a laptop for her wasn't an option, so when she tried to read, she had to juggle the book, and the laptop, and the mp3 player. All while being tied to a recliner with tubes running into her arm filling her with nasty chemicals. When I got her the tablet, it was the best of all worlds. She could read an e-book, listen to music, watch a TV show, browse the web, check her E-mail, update her cancer blog, follow her friends on facebook, and play games - all on a device that was light and cool. If she got tired, she could just slip it off to the side between her and the recliner (or bed when she was home trying to regain strength). MUCH better than a bulky laptop, and book, mp3 player, remote control, and more.

As she was getting pumped full of noxious chemicals, I would commandeer a table and chair in the corner of the treatment room, near a power outlet, and try to work on my six-year old laptop. In between projects, I would do research on Android programming. I found out that most programming for Android is done in Java. I had almost resigned myself to re-learning Java when I stumbled across a few tools that allow Python programming for the Android Operating system. One of these tools is called "SL4A". SL4A stands for Scripting Layer for Android. That's what we will concentrate on in the next couple of articles. We'll really focus on getting SL4A set up on Android in this one.

You might ask, why in the world I would be talking about Android programming in a magazine designed for Linux. Well, the simple reason is that the core of Android is Linux. Everything that Android is, sits on top of Linux!

Many web pages show how to load SL4A into the Android Emulator for Desktops. We'll look at doing that another time, but for now we'll deal with the Android device itself. To install SL4A on your Android device, go to http://code.google.com/p/android-scripting/; you'll find the installation file for SL4A. Don't be absolutely confused here. There's a square High Density barcode that you tap to download the APK. Be sure that you have the "Unknown

Sources" option enabled in the Application settings. It's a quick download. Once you have it downloaded and installed, go ahead and find the icon, and tap it. What you will see is a rather disappointing black screen saying "Scripts...No matches found". That's OK. Hit the menu button and select View. You'll see a menu. Select Interpreters. Then select menu again, and select Add. From the next menu, select Python 2.6.2. This should ask you to start a browser session to download Python for Android. Once this is installed, select Open. You'll get a screen menu with the options to Install, Import Modules, Browse Modules, and Uninstall modules. Select Install. Now Python will download and install along with other extra modules. In addition, you'll get some sample scripts. Finally, tap the back button and you'll see Python 2.6.2 installed in the interpreters screen. Tap again on the back button and you'll see a list of some sample python scripts.

That's all we are going to do this time. All I wanted to do is whet your appetite. Explore Python on Android. You might also want to visit

> **you'll see a rather disappointing black screen [...] That's OK.**

http://developer.android.com/sdk/index.html to get the Android SDK (Software Development Kit) for your desktop. It includes an Android Emulator so you can play along. Setting up the SDK is really pretty easy on Linux, so you shouldn't have too much trouble.

**Greg** is the owner of RainyDay Solutions, LLC, a consulting company in Aurora, Colorado, and has been programming since 1972. He enjoys cooking, hiking, music, and spending time with his family. His website is www.thedesignatedgeek.net.

# How to Include Accents from the Keyboard
by Barry Smith

If your Linux system is in French, German, or Spanish, and, therefore, requiring accents, or if, occasionally, you need to use accents which do not appear in English words, many users do not know that there is a very easy way to do this from the keyboard. The following applies to only the UK keyboard.

**Acute accent**
Press Alt Gr + ; (semi-colon) Lift hand then press the desired vowel é

**Circumflex**
Press Alt Gr + ' (apostrophe) Lift hand then press the desired vowel î

**Grave accent**
Press Alt Gr + # (hache) Lift hand then press the desired vowel è

**Umlaut**
Press Alt Gr + [ Lift hand then press u ü

ñ - Press Alt Gr + ] Lift hand then press n ñ

œ - Press Shift + Alt Gr Lift hand then press o then press e œ
The œ will not appear until after the e is keyed.

To get ¿ and ¡ (inverted exclamation mark) which I use all the time in Spanish before questions, and exclamations, press Alt Gr + Shift, keeping both keys pressed, then hit _ (underscore) for ¿ or hit ! (exclamation mark) for ¡.

If you want any of these in capitals, just press Shift before keying in the letter.

While data collection is useful and helpful in determining results, or whether goals were met, charts and graphs simplify data so others can quickly digest and interpret results. The art of charts and graphs is well beyond the scope of this article, but I will show you how to create a chart in Calc, which you could use in Writer or Impress. There are many predefined charts and graphs available in Calc.

We will use a simple collection of data to create our chart. The data represents the boat rentals for a six month period. We will use a bar chart to show the relationship between the different types of boat rentals for each month.

## The Chart Wizard

The chart wizard allows us to get the basics of our chart completed quickly and easily. In fact, sometimes the chart wizard is all you will need to complete your chart. The wizard is your jumping off point for all chart creation.

Before starting the wizard, you need to highlight the data used for the chart. You will want to make sure you just highlight the data and their labels. Although you can modify the ranges for the data series later, getting it as close as possible helps Calc to better render the final results.

You have two ways to start the chart wizard. You can click on the chart wizard icon (shown right) on the main toolbar, or through the menu with Insert > Chart. The chart wizard consist of four steps. We will walk through each of the steps, but it is possible to click the Finish button at any time to end the wizard process.
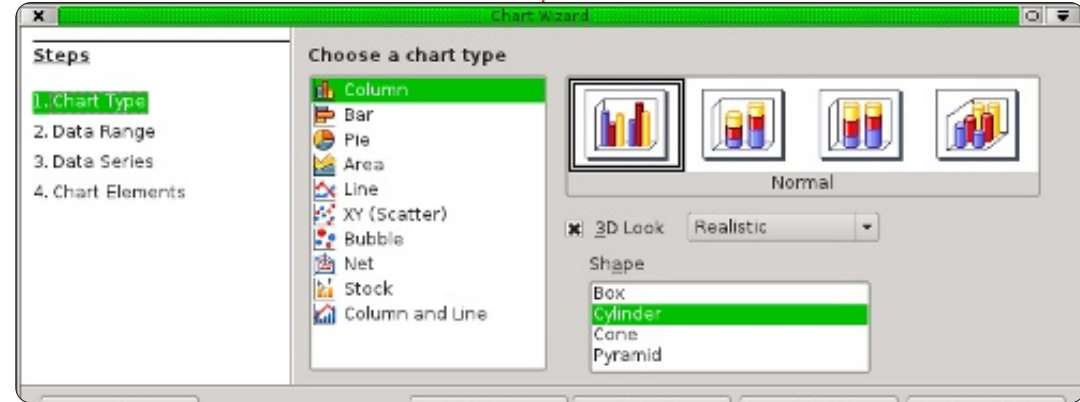
## 1. Chart Type

The chart type (above) is where you select the type of chart you want to create. For some chart types, you have the option of 3D effects, and for others you do not. For our chart, we will select the basic bar chart. Since we have the option of 3D effects for a bar chart, we will also check the 3D Look checkbox. In the 3D Look dropdown box, you have the options of Realistic or Simple. This helps determine the look and shading of the 3D effect. We will use Realistic. Finally, you can select different shapes for your data series. We will use cylinder. Click the Next button to move to the next step.

## 2. Data Range

In step two we define the data range and how Calc will use the data range to create the chart. If we need to change the range from what we selected, we can type in the range or select the range from the spreadsheet. The small button at the end of the data range textbox will shrink the wizard dialog so more of your spreadsheet is visible.

We need to tell Calc whether our data series are defined by row or column. For our example, we used columns. Also, since we selected the labels as well as the data, we need to check both First
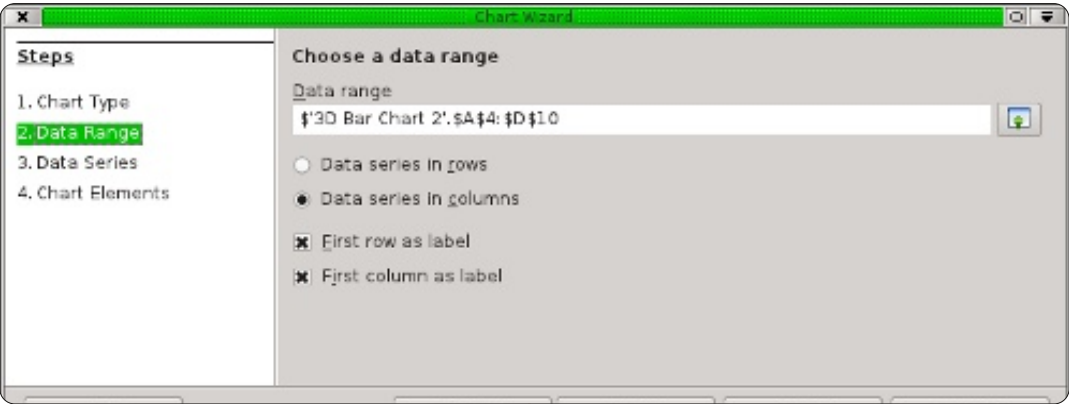
row as label and First column as label.

Click the Next button to move to the next step.

## 3. Data Series

The third step (below) lets us redefine, add, change the order, and remove data from our data series. You will see the data series for t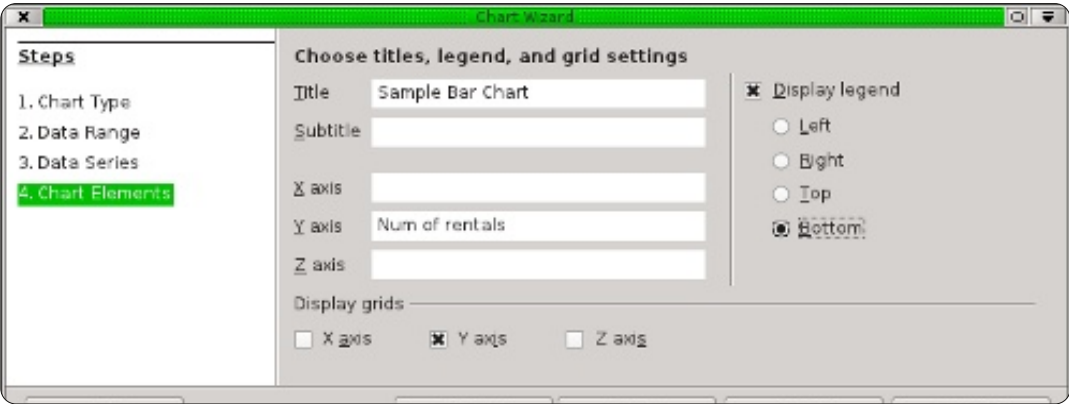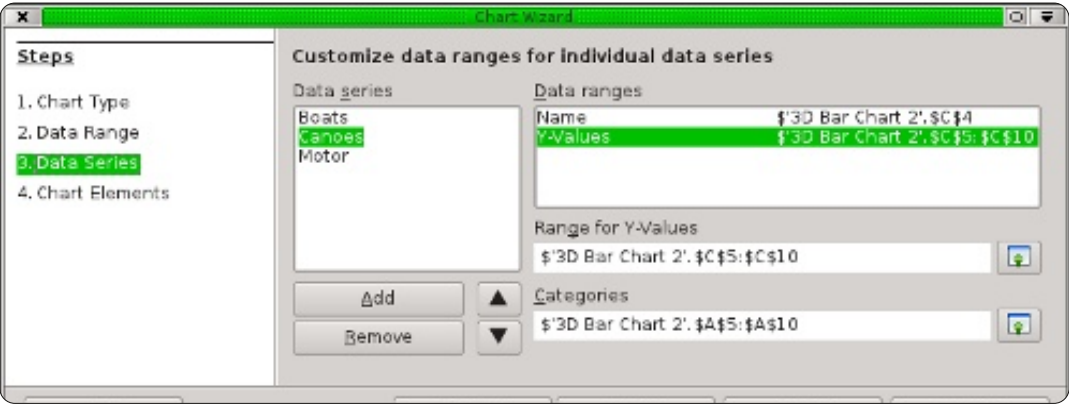he chart defined by their label in a listbox. You can change the range of the series much as you could in the data range step; however, keep in mind, this is only for one set of data and not the entire chart. You can add another series by clicking on the Add button. You can remove a series by selecting it and clicking the Remove button. Change the order of the series by selecting the series you want to move and use the up and down arrow buttons.

We don't need to change anything here, so click the Next button to move to the last step of the wizard.

## 4. Chart Elements

The fourth step (above right) of the wizard allows us to define names for the different parts of our chart, including title, subtitle, and x and y axis. We can also set the location of our legend and the grid for the chart area. For our chart sample, give it the title "Sample Bar Chart". We also want to label our Y-Axis as "Num of Rentals". Since our X-Axis is the months of the year, we don't really need a label for the X-Axis. It is self-explanatory. Set the legend to appear at the bottom, giving our data more room to spread out.

We are now finished with the Chart Wizard. If you ever need to revisit any of the steps, you can use the Back button or select the step from the list on the left. Click the Finish button to complete the wizard and display the chart in your spreadsheet.

## Formatting Chart Elements

After creating the chart with the Chart Wizard, it is possible to change the elements of the chart. After clicking on finish, you will notice that the newly created chart is selected and your toolbar has changed. You have the chart formatting toolbar instead of the standard edit toolbar. The new toolbar has a dropdown box which allows you to select the different elements you can change. After selecting an element from the dropdown, click on the Format

Selection button to display the dialog for that element.

There are also buttons for changing the chart type, and displaying the chart grid and legend. The button with the double arrow beside the capitol A is used to scale the text with the chart when you resize it. I highly recommend this, as it keeps things proportional. In addition to the changes in the toolbar, you will find changes in the Insert and Format menus as well. These changes allow you to insert and format elements of your chart.

You can move the chart by clicking and dragging the borders. Resize the chart by clicking and dragging one of the eight handles. If you selected the text scale button, the size of the text will scale with the chart as you change it.

Now, let's make some changes to our chart. In the dropdown list in the toolbar, select Chart Title and click on the Format Selection button. On the Font tab, change the size to 18 and the style to bold. Click OK. Next, select Chart Area and click Format Selection. The chart area is the entire background

of the chart. On the Area tab, select a background color of light gray. You will notice this changes the color of our data area as well, but we want the data area to stand out. Select Chart from the dropdown list and click Format Selection. On the Area tab, select to fill with color and pick white. Since we are using a 3D chart, let's change the perspective a little: Format > 3D, check the Perspective checkbox and change the percentage to 50%. You will see

Chart Area | Format Selection

his changes the perspective of the chart.

There are other things to do on your own. Try changing the color of one of the data series or adjusting the placement of some of the elements. All can be done through the dropdown list, and the Format and Insert menus. When you deselect the chart, you are taken back to normal toolbars and menus. To edit the chart later, just

double-click the chart, and you get the specialized toolbar and menus back.

We have only touched the surface of the chart and graphs in Calc, but I encourage you to play around with the different types and elements. The type of chart you use is dependant upon the type of data you have and the information you want to convey.

**Next time, we will begin our work in Impress, LibreOffice's presentation program.**

**Elmer Perry**'s history of working, and programming, computers involves an Apple IIE, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu.

### Sample Bar Chart

Num of rentals — Jan Feb Mar Apr May Jun

■Boats ■Canoes ■Motor

R est safe. That's the headline of the Prey project. If you have lost your laptop or your phone, or they were stolen, Prey gives you the chance to locate them anywhere in the world and get them back. Simply the possibility of locking a stolen laptop and denying a thief access to the data is worth thinking about. Prey is currently available for Linux, Mac, and Windows based computers, and Android based phones. The iPhone and iPad Apps are currently under Apple's review.

## How it works

The location of the lost or stolen computer or phone will be tracked by an Internet access, the nearest Wifi access point, or GPS.

Prey will then send us an E-Mail or a SMS, and then we can access our computer remotely with the following options:

• take a snapshot of the current user if there is a built-in camera.

• take a snapshot of what he is currently doing. With a little luck, it's possible to check out his E-Mail, social network account, or something else of evidence.

• hide private Thunderbird or Outlook data and/or delete stored passwords.

• lock the computer and make it unusable.

• send an alarm sound or show a message on the display.

Sound interesting? Let's go.

First, visit the Prey website (http://www.preyproject.com/) to create an account. After we click the Login button, we hit on "Not registered? Sign up". Now we can choose between a free or pay
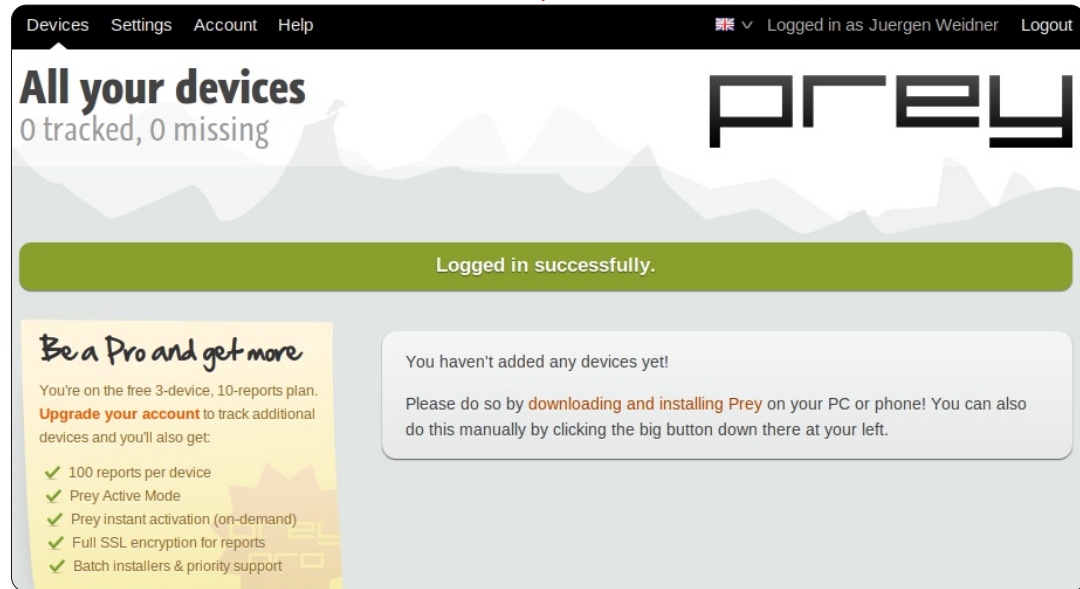
account. We can register up to three computers or phones for free. For more devices, or some special services (more reports, permanent tracking, shorter reporting intervals), we can choose one of their pro offers.

For testing, the free version just suits us, and we work through the procedure. After entering our name, e-mail, country, and password, we will receive an e-mail to activate our Prey account.

When that is done, it's time to install the tiny Prey client on every device we want to protect. Since Ubuntu 11.04, we'll find Prey in the Ubuntu Software-Center. Install it from there, or via Terminal, with

```
sudo apt-get install prey
```

For older Ubuntu versions, chose the download from the projects website and install with Gdebi. Next thing to do is to open the Dash. In the category System, we'll find the Prey Configurator.

After opening it, we work through the Main Settings.

**Success**

Configuration saved! Your device is now setup and being tracked by Prey. Happy hunting!

OK

Create a new device in my Control Panel
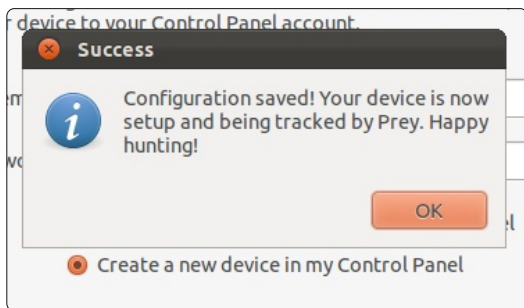
First, we decide about the Frequency of reports and actions. This means we set the time-frequency when Prey will awake after we've raised an alert of a lost device, and the number of minutes between the single reports we'll receive, or an action will take place. If you are not in a hurry, the default setting of 20 minutes will be just fine. If necessary, you can change that later at the Control Panel.

Next we have to think about enabling a guest account. This is a must for computers protected with a password to get full remote access.

Wifi autoconnect should be enabled, it allows locating the computer if it is near a Wifi access point - whether its new owner is online or not.
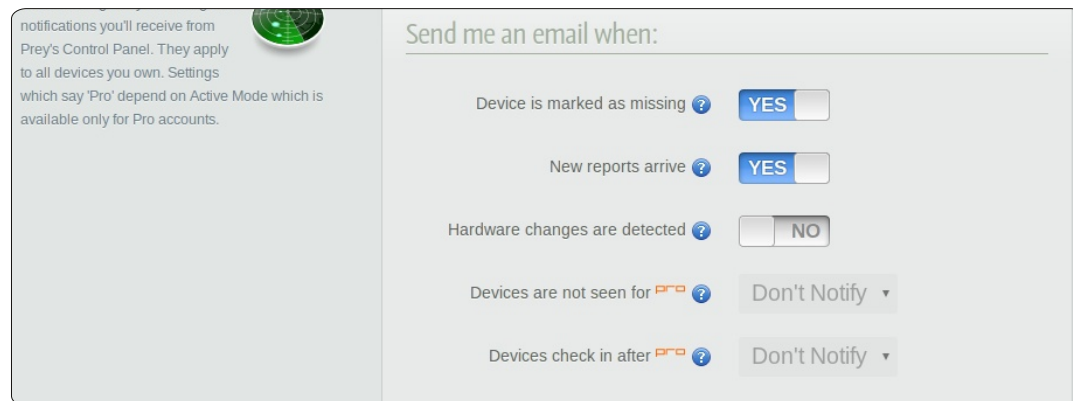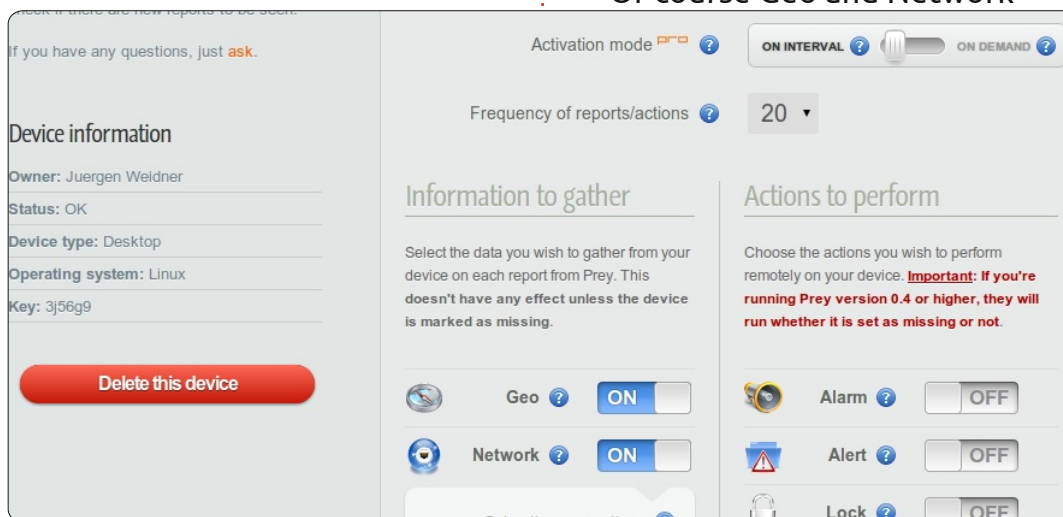
We accept the Reporting mode as recommended.

Because the Prey account is already created, the last step is to type our login data (e-mail and password).

Finished! The unit is registered now and can be tracked.

## The Control Panel

To check out if it works, and to see which options activate if the device is lost, let's surf again to preyproject.com. After we log in, we'll find our registered machine at the control panel in the category Devices.

Before changing something, let's take a closer look at the panel. It is clearly structured in three

Device information

**Owner:** Juergen Weidner
**Status:** OK
**Device type:** Desktop
**Operating system:** Linux
**Key:** 3j56g9

Delete this device

groups. The function of every switch will be displayed when we move the mouse over the question mark beside it. Functions labeled with a little red **pro** are available only in the pay version.

Let's start with the settings in the section "Information to gather."

Of course Geo and Network

**Send me an email when:**

Device is marked as missing — YES
New reports arrive — YES
Hardware changes are detected — NO
Devices are not seen for pro — Don't Notify
Devices check in after pro — Don't Notify

switches have to be ON. For network details, it will be useful to switch on YES to gather active connections. If the computer possesses a WLAN-module, we should enable the listing of Wifi hotspots near the device. To be able to trace the route the current user has taken with our equipment, we first need to install the package "traceroute". We'll find it in the Ubuntu repositories, install it in the usual way and activate this function.

Next we can choose to take a screenshot of what the user is doing. If we are lucky he is logged in somewhere where we recognize his name or something else of evidence. If there is a built-in webcam, and we want to take a picture of the person who is using our property, we shift the Webcam-button to ON.

If you have any questions, just **ask**.

Activation mode pro — ON INTERVAL / ON DEMAND

Frequency of reports/actions — 20

### Information to gather

Select the data you wish to gather from your device on each report from Prey. This doesn't have any effect unless the device is marked as missing.

Geo — ON
Network — ON
Get active connections

### Actions to perform

Choose the actions you wish to perform remotely on your device. **Important: If you're running Prey version 0.4 or higher, they will run whether it is set as missing or not.**
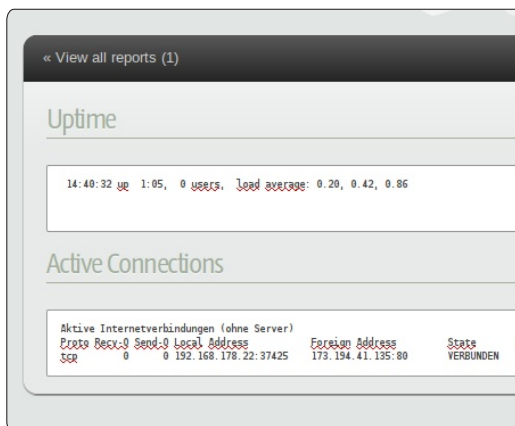
Alarm — OFF
Alert — OFF
Lock — OFF

Under the section "Actions to perform", currently we don't change anything, because these functions will work whether the computer is registered as missing or not.

Caution particularly with the Secure button!

At least let's activate the Missing-button, save the changes, and let's see what happens.

When I made this test with my PC, after some minutes I received an e-mail which told me that the device has been located. At the control panel appeared the first report. The current IP, time, OS, and active connections up to the Internet-browser were shown. It was all correct so far.

## Worth knowing



If a device is announced as missing, Prey will send us 10 reports. The eleventh report will overwrite the first one and so on. So we see always the ten latest reports (up to 100 in the pro-version).

To prove that we are the legal owners, it's important to notice the computer's or phone's serial numbers.

To prevent a thief from installing another operating system, we should protect the BIOS with a password, and disable booting from CD/DVD or other removable devices.

To format the HDD, or to remove the Prey-software from our Computer, a thief needs to know the administrator-password.

There is no need to worry about updates for the prey software. It will update automatically when necessary.

The software is open source and can be checked by everyone.

Prey people say that privacy is their number one priority, and that they gather information only with our permission. But we have to be aware that we give them at least the access to our computers or phones. Even when they promise never to spy, and never to do anything that might harm us, there is still a little risk.

This article can only briefly cover the basic essentials of Prey. There is much more to learn about. For further information, especially for details of handling Prey on your phone, visit the FAQ at their homepage. For discussion with other users or the developers, there is a forum and an IRC-channel.

## Conclusion

There is no assurance we will get back our property, but we can improve our chances. I've decided to keep this little guard on my computers. Just the option to lock out a stolen computer persuades me. By the way, in case of a burglary, maybe the PC will lead me to the thief, and help me get back other stolen property. Who knows?

For the storage of sensitive data, I use Cryptkeeper (Ubuntu repositories) or a TrueCrypt

container - to keep any possible spy at bay.

**URLs of interest:**
Website of the Prey-project
http://www.preyproject.com/
Host of the Prey-sourcecode
https://github.com/prey/prey-bash-client
Prey forum
https://groups.google.com/forum/#!forum/prey-security
Prey IRC-channel
http://webchat.freenode.net/?channels=preyproject

**Editor's note**: There's also an Android version of Prey (https://play.google.com/store/search?q=pname:com.prey), but having read the comments, it seems quite easy to defeat.

**I**n the first of this new GIMP series, I'm going to try and show you some intermediate techniques. In other words, things that people may think are possible only with Photoshop. If you'd like to read more about the absolute basics of GIMP, then I refer you back to FCM#12-19. While I used an older version of GIMP in those issues, the layout of GIMP has changed little in the passing years.

For ideas, I'm using Photoshop tutorials that are freely available on the web, and, while not copying them step for step, applying the underlying principles of them to GIMP.

I should also state, for the record, that I'm using GIMP 2.6. As I write this, a 2.7 version is available, but, it is not entirely compatible with the *buntu family, and trying to install it can give conflicts.

What we'll be making is shown left.

**Sources:**
Sky -
http://www.2textured.com/index.php/Environment/Skies/skies_0347

YouTube Video showing Pt1 being made:
http://www.youtube.com/watch?v=NYFTdbzjubg

## The Sky Gradient

First thing we need to do is create a new image (File > New), and make it A4 in size, portrait in orientation, and with an X and Y resolution of 80. The default X and Y resolution is 300. That's for professional printing, and, it requires high resolution images as source material, and can slow down even the hardiest of machines - so we'll go with 80 which is more than adequate for this tutorial.
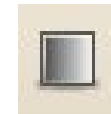
Select the 'Blend tool' icon (shown left), and, where it says 'Shape:', choose 'Radial' from the drop down menu. No need to change anything



else for now. For a foreground color, choose a very pale greeny-yellow (RGB = 220, 229, 189). For the background, choose a slightly faded greeny-yellow (RGB = 133, 151, 81).

Next, left click (and hold) in the middle of the blank image and move up to the top middle of the image. Release the mouse button and you'll have a radial fill covering the entire canvas.
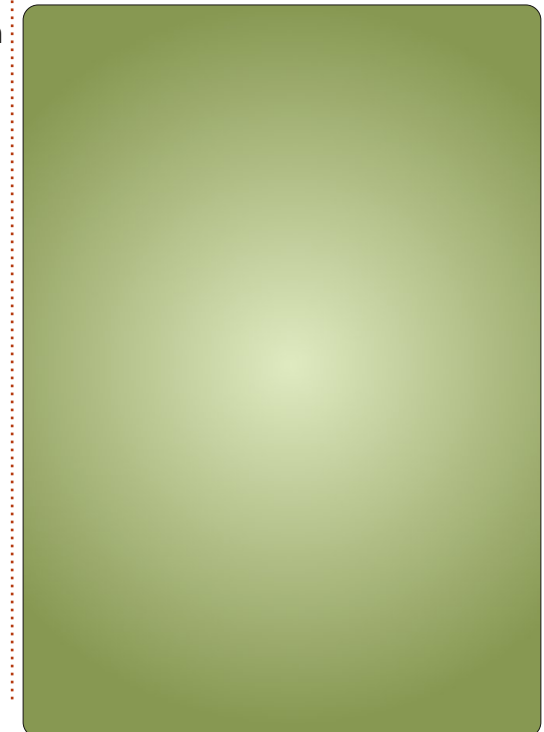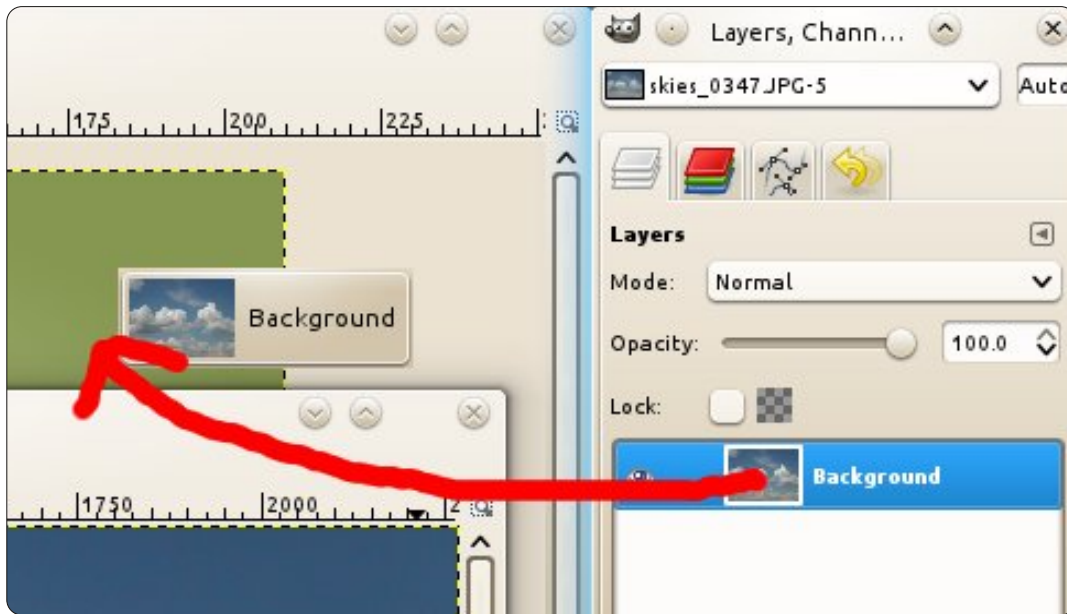
## No, Not The Layers!

Click File>Open, and choose your sky image. To quickly get the sky into our main image, we go to the 'Layers' tab and (as shown above) drag it onto our main image

With the sky now in our main image, you can close the opened sky image.
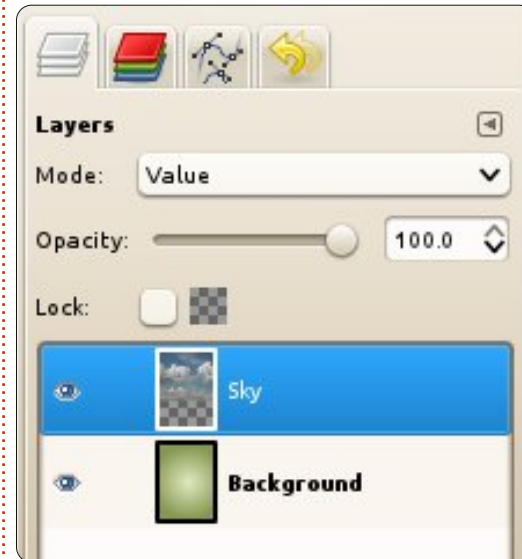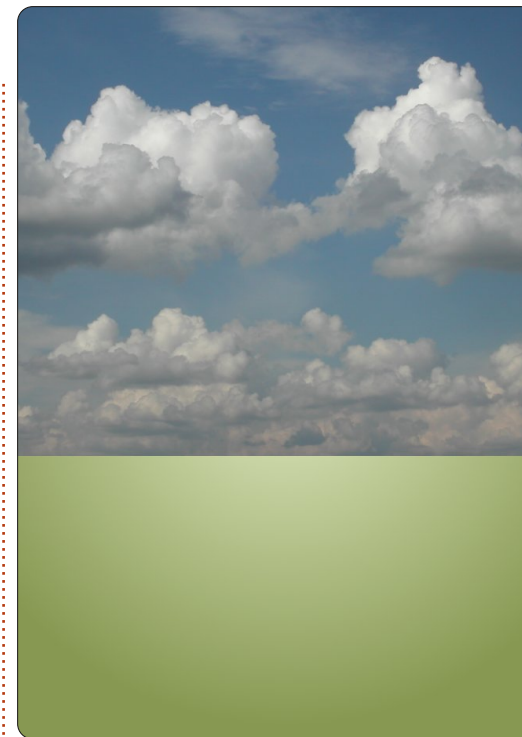
The sky image is quite high resolution, larger than we require, so we need to resize it. Click the 'Resize' tool (shown left), and click the sky. In the resize window that pops up, you need to make sure that the little chain link icon is linked. If the icon looks like a broken chain, then your sky image will resize disproportionately and squish. Make the width of the sky about 300 wide, and click OK. This gives us some room to play with.

Click the 'Move' icon (shown left). Now, left click and drag the sky icon to where you think it looks best.

**TIP**: The gradient is one layer and the sky is another. If we add several more layers, it'll get quite confusing. To make things easier you can double click on a layer name and rename it.

drop down menu above the layers and choose 'Value'.

## Color Curve

You'll now have a greeny sky, but it doesn't look very dramatic does it? With the sky layer still selected, click Colors > Curves from the menu. We're going to create what's known as an S-curve. The S-curve is a great way of quickly color correcting your photos too. Click two boxes across and two down in the grid, and drag your mouse up and to the left slightly, and two boxes in and up from the bottom

Now for some layer magic. With the sky layer still selected, click the
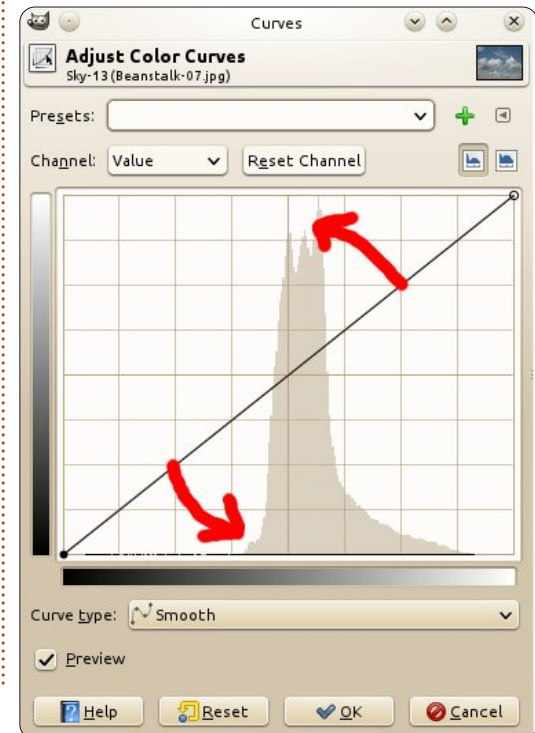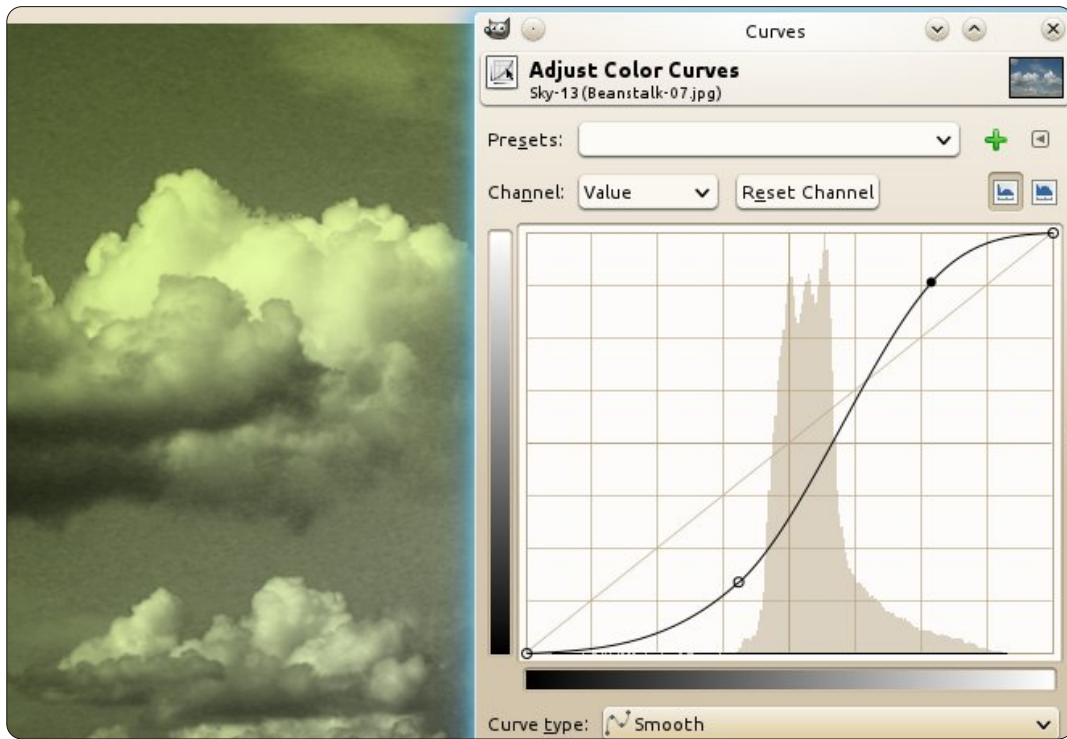
left of the grid, and click and drag down to the right.

Which will give you an S-curve (shown above) which you should play around with until you get a nice dramatic sky with good darks, but not too bright lights.

Let's finish off this sky and that'll do us for this first part of the tutorial.

## Layer Mask

Right click on the sky layer, and

from the menu, choose 'Add Layer Mask' (shown below).
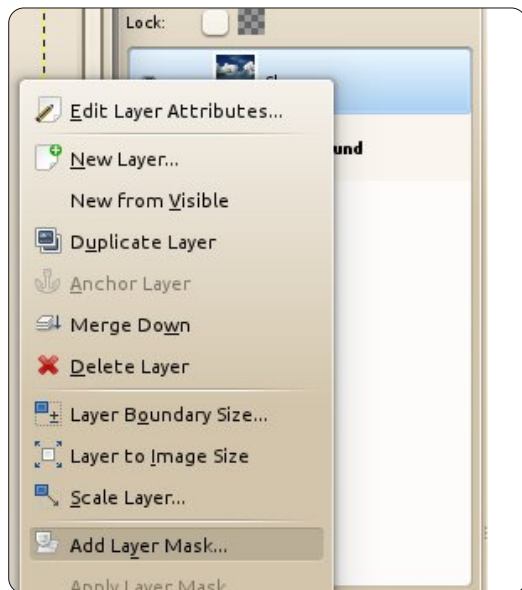


From the window that pops up, choose 'White (full opacity)' and click 'Add'. You'll see a box appear next to your sky thumbnail in the list of layers.



That box is a thumbnail of the layer mask. The idea is that if you select that layer thumbnail, and draw in black, you'll erase parts of the sky image. Draw over the erased area with white and the sky will reappear. This means you can show/hide parts of the sky - using the mask - without destroying the original sky image. We'll use the mask to fade the sky into the background.
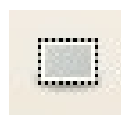
 Make sure the mask thumbnail is selected, it should have a white outline, and click the "Rectangle

Select' icon (shown below left). Left click and draw a box around the bottom third of the sky.
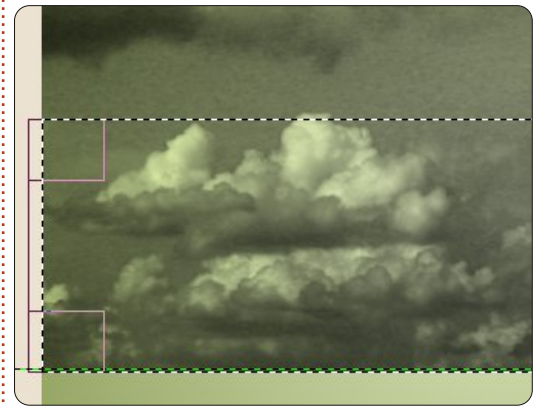


Now click the 'Blend Tool' icon (that we used at the start of this tutorial), but make sure the 'Shape:' is Linear this time. You'll need a foreground colour of black, and a background colour of white. With that all set, click and drag just up from the bottom middle of the selected area, to just below the top middle of the selected area, and release the mouse button.
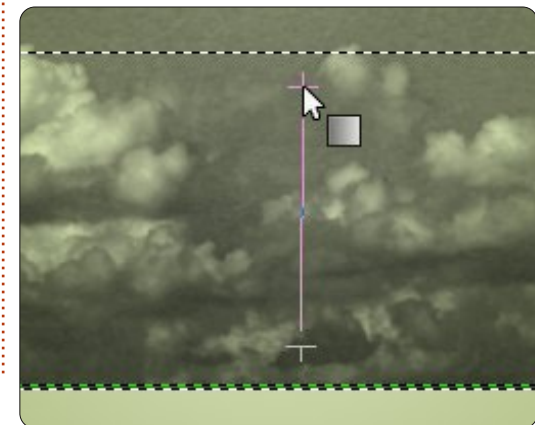
Your sky will now magically fade into the background. And since it's a layer mask, the original sky is untouched. You can right click on the layer mask and delete it and the sky will return to its original state.

**Next month we'll add a piece of landscape below the sky, and maybe, just maybe, start growing that beanstalk. Class dismissed!**

**Ronnie** is the founder, and editor, of Full Circle, an official Ubuntu member, and part-time artist who's work can be seen at: http://ronnietucker.co.uk

The Ubuntu Podcast covers all the latest news and issues facing Ubuntu Linux users and Free Software fans in general. The show appeals to the newest user and the oldest coder. Our discussions cover the development of Ubuntu but aren't overly technical. We are lucky enough to have some great guests on the show, telling us first hand about the latest exciting developments they are working on, in a way that we can all understand! We also talk about the Ubuntu community and what it gets up to.

The show is presented by members of the UK's Ubuntu Linux community. Because it is covered by the Ubuntu Code of Conduct it is suitable for all.

The show is broadcast live every fortnight on a Tuesday evening (British time) and is available for download the following day.

**podcast.ubuntu-uk.org**

Imagine giving instructions to someone in order for them to draw a picture of a house. The chances are that you would describe geometric shapes and their relative positions. "Draw a big red rectangle about half the width of the page, roughly in the middle and a little wider than it is tall. Now put a grey triangle on top of it that's a little wider so it overhangs at the edges..." The same instructions would work for any size of canvas from a postage stamp to a billboard.

You've just imagined the world of vector graphics.

When you take a photo or create an image in GIMP, you're working with raster graphics – sometimes called bitmaps (not the same as the .bmp file format – although that is an example of a bitmap graphic). A raster graphic (or bitmap) is essentially a list of pixel colors, which tells the computer to draw a red pixel, then a blue one, then a green one... and so on, pixel-by-pixel, line-by-line, until the last pixel is reached.

Vector graphics, on the other hand, consist of a series of instructions. "Draw a red circle with a radius of 10 units, centered at coordinates X,Y. Now draw a blue line from the top left corner of the page to the bottom right." That red circle could have a radius of 10 inches, or it could be 10 miles, meaning that, unlike raster images, vector graphics can be scaled with no loss of quality.
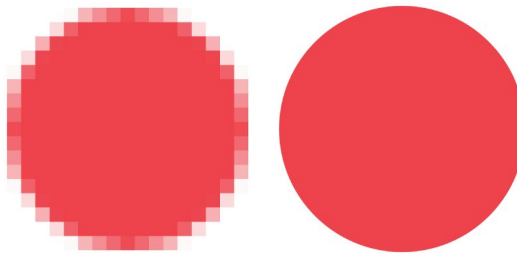
A small circle scaled up as a bitmap image (above left), and as a vector image (above right).

Just as there are many raster formats – JPEG, GIF, PNG, BMP to name just a few – so there are also many vector formats. Most of them have grown from proprietary applications, such as AutoCAD's DWG, or Adobe Illustrator's AI, but
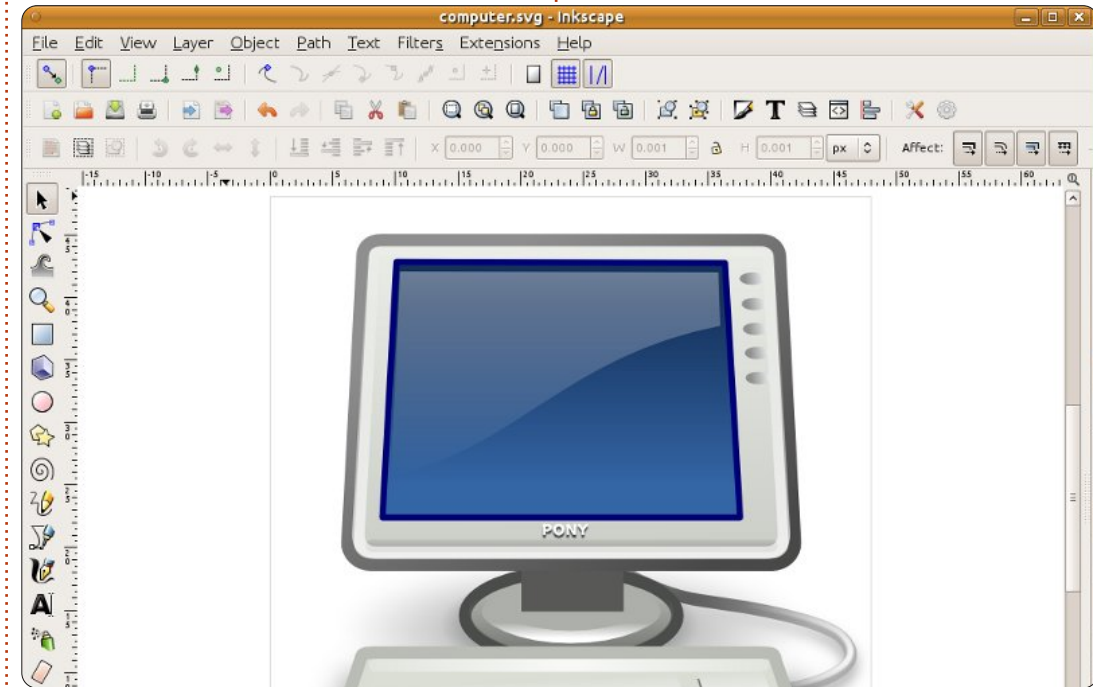
one in particular is an open format, defined by the W3C – the same standards body that's responsible for the HTML format that drives the web. Vector graphics are, by their very nature, scalable – but that didn't stop them trying to make absolutely sure you know what you're getting with their format: they called it "Scalable Vector Graphics", or SVG.

SVG files are plain text containing nested collections of

"tags" in a similar manner to HTML files. There's a <circle> tag, a <line> tag, and so on. They can be modified using any text editor, though as an image becomes more and more complex it's usually easier to use a drawing program to edit them. Probably the best known software for this is Inkscape (www.inkscape.org) which can be found in the repositories of most Linux distributions, Ubuntu included, and is available also for Windows and MacOS. Inkscape

uses SVG as its primary file format, which makes it a great tool for creating or editing SVG files, but which also places a limitation on the program's capabilities. With serious work now underway on defining version 2.0 of the SVG format, Inkscape should, hopefully, be able to make some ground on its proprietary competition over the coming years.

The HTML-like structure of SVG files, together with their origins at the W3C, have made them the official standard for vector graphics in the web world. It has taken a long time, but most web browsers now natively support SVG files, and it's possible to mix them directly into HTML files – ideal for inline graphs or maps. The hierarchical structure of tags is also open to being modified by Javascript in the same way as HTML content, allowing for anyone with some web development skills to create interactive graphics. As is often the case, however, specific support varies between browsers, and some more advanced features of the SVG format may not display in the same way in all of them.

So SVG is great for diagrams, interactive charts, and even artistic

works, but it's got one other trick up its sleeve which elevates it beyond the inherent smoothness and simplicity of pure vector graphics: it also has some support for raster images. At the simplest level, it's possible to include a raster image in an SVG file, then draw lines and circles over it, or clip it into an odd shape using an SVG path. But raster images can also be used as fill patterns in SVG files: Inkscape ships with a few of them by default, and I've personally used the sand texture (which looks like the noise or snow on an un-tuned television) to help simulate stone, ash, bricks, and even a cornfield!

Going further still, SVG has a concept of filters – mathematical operations that can be combined and applied to the rasterised pixels in your final image. The image is still made up of vectors, but once those vectors have been drawn, filters can create all sorts of grungy raster effects which would usually require a program like GIMP or Photoshop. Just look at how a little filtering can turn some semi-random vector blobs into an explosive fireball:

Some simple vector blobs...
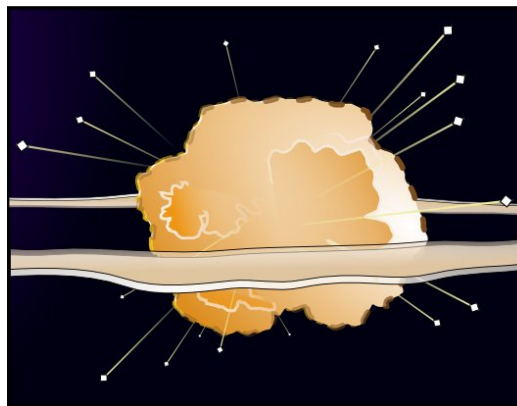


...brought to life with some SVG filters



Whether you want to draw icons for an application using Inkscape, graphs for a website using Javascript, or abstract art using a text editor, SVG is a powerful and flexible format that promises even more in the years to come. So grab a copy of Inkscape using your package manager and get drawing.

**Useful Links:**
Inkscape: http://www.inkscape.org
Inkscape User Forum:
http://www.inkscapeforum.com
Tango SVG Icons:
http://tango.freedesktop.org/
W3C SVG Working Group:
http://www.w3.org/Graphics/SVG/

**Next month we'll have our first touch of Inkscape. Stay tuned!**

**Mark** has been using Linux since 1994, and uses Inkscape to create two webcomics, 'The Greys' and 'Monsters, Inked' which can both be found at:
http://www.peppertop.com/

## Guidelines

The single rule for an article is that **it must somehow be linked to Ubuntu or one of the many derivatives of Ubuntu** (Kubuntu, Xubuntu, Lubuntu, etc).

Write your article in whichever software you choose. I would recommend LibreOffice, but **PLEASE SPELL AND GRAMMAR CHECK IT!**

## Writing

There is no word limit for articles, but be advised that long articles may be split across several issues. In your article, please place where you would like a particular image to be. Please do <u>not</u> use any formatting in your document.

## Images

Images should be no wider than 800 pixels, in JPG format, and use low compression.

If you are writing a review, please follow the guidelines shown here.

For a more detailed list of the style rules and common pitfalls please refer to: https://wiki.ubuntu.com/UbuntuMagazine/Style - in short: US spelling, no l33t speak and no smilies.

When you are ready to submit your article please email it to: articles@fullcirclemagazine.org

If you can't write articles, but hang out in Ubuntu Forums, send us interesting forum threads that we could print.

## Non-English Writers

If your native language is not English, don't worry. Write your article, and one of the proof-readers will read it for you and correct any grammatical or spelling errors. Not only are you helping the magazine and the community, but we'll help you with your English!

## REVIEWS

### Games/Applications
**When reviewing games/applications please state clearly:**

- title of the game
- who makes the game
- is it free, or a paid download?
- where to get it from (give download/homepage URL)
- is it Linux native, or did you use Wine?
- your marks out of five
- a summary with positive and negative points

### Hardware
**When reviewing hardware please state clearly:**

- make and model of the hardware
- what category would you put this hardware into?
- any glitches that you may have had while using the hardware?
- easy to get the hardware working in Linux?
- did you have to use Windows drivers?
- marks out of five
- a summary with positive and negative points

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The old laptop I got from my dad features an RS-232 port. So, now that, technically, I had a client that I could test my RS-232 connection with, I ordered a null modem cable.

There is no RS-232 outlet on my desktop computer, but there's a connector on the mainboard where an RS-232 outlet can be attached. The outlet will then cover up a PCI slot.

Several of the programs referred to below must be installed from Software Center, Synaptic, or by using apt-get.

## Activating RS-232

Ok, once all the cables were in place, I tried to access both RS-232 ports by reading from them directly. They're usually ttyS0 or ttyS1, depending on what COM-Port it is.

From the file /proc/tty/driver/serial, information about the serial setup can be obtained, or you could try typing:

```
setserial -q /dev/ttyS0
```

which might be useful. Usually, the UART Type is 16550A on a standard PC. Mine wasn't working, though. At least not right from the start, when I tried to read the interface with:

```
cat /dev/ttyS0
```

I got the following error:

```
cat: /dev/ttyS0: Input/output
error
```

Obviously, the driver couldn't activate the hardware. Reason was, it was deactivated in the BIOS. After activating RS-232 there, it worked well.

As a last action, I added myself to the uucp group, so I have user permission to the serial lines. It is not necessary for the terminal setup, but a good idea to do so, just for future projects, maybe.

## Setting up a terminal

Once the Serial line is configured and working properly, it's time to let a terminal run on that port. This is what I added to my /etc/inittab:

```
s0:2345:respawn:/sbin/agetty
-L 38400 ttyS0
```

I added it at the top of that file, right below the 'si' statement,

mingetty cannot be used for serial connections; it cannot be run in a console, too. I tried it for testing purposes, but the console - along with your login program - will log you out, as soon as you log in over your serial line.

-L means this is a local line, with no carrier signal. 38400 is the standard speed of a Linux console,

it might be a bit high, I was told, but it works well. I tested that with some higher values as well (115200), and it worked too. I guess it depends on things like cable length, etc. Last parameter is the serial tty to listen on. The terminal type can be specified as an additional parameter at the end of the parameter list, vt102, for instance. This is sometimes required, depending on the client.

After finishing editing /etc/inittab, typing:

```
init q
```

will make the system re-read /etc/inittab and apply changes. The agetty should now be listening on ttyS0 .

## Setting up a client

It's time to establish a connection and test the serial line. I use a laptop that has an RS-232 port, so some preliminary setup is required. I tried minicom as a terminal program initially, but it turned out not to be the best client. It tries to initialize the modem - this lasts quite long, and it doesn't convey ANSI colors. So

the better option is cu, it's part of the UUCP-Package.

Oh, and the serial port of that computer has to be accessible as well, of course.

Once everything was set up, I established the connection:

```
cu -l ttyS0 -38400 --nostop
```

Pretty self explanatory, I think. The --nostop option disables XON/XOFF handling.

## Root Access Over ttyS0

In order to become root over the serial terminal, the tty needs to be added to /etc/securetty. I appended ttyS0 to the end of the file. It is now possible to gain root access over the serial terminal. The agetty process needs to be restarted to apply changes.

## Accessing GRUB over ttyS0

To make bootloader access possible over ttyS0, some changes to /boot/grub/menu.lst need to be done. (GRUB is the bootloader I use, I suppose LiLo has similar

capabilities.) These are the two lines I added to the top of my menu.lst :

```
serial --unit=0 --speed=38400 --word=8 --parity=no --stop=1

terminal --timeout=3 serial console
```

The serial command initiates the serial terminal option, --unit=0 defines our first serial connector, in my case it's the only one I have on my machine. I used the standard Linux-Console speed, as well as the

"8N1" connection strategy.

terminal defines the terminal priorities, first terminal (serial) is the standard one, the last one is the secondary terminal (console).

--timeout=3 enables a delay on both consoles, with a prompt for a keystroke. Depending on which terminal the key is pressed, this terminal will be used. If no key is pressed after the timeout, the standard console (in my case serial) will be used.

## Relaying Kernel Output on Boot

The Kernel accepts multiple console options, of which the last one is the standard console, and the one that will be used in Single User mode. These are my Kernel options:

```
title Fedora Core (2.6.20-1.2316.fc5)

root (hd0,0)

kernel /vmlinuz-2.6.20-1.2316.fc5 ro root=/dev/VolGroup00/LogVol00 rhgb quiet vga=795 console=tty0 console=ttyS0,38400

initrd /initrd-2.6.20-1.2316.fc5.img
```

console=tty0 is the standard console located on the machine, i.e. monitor and keyboard.
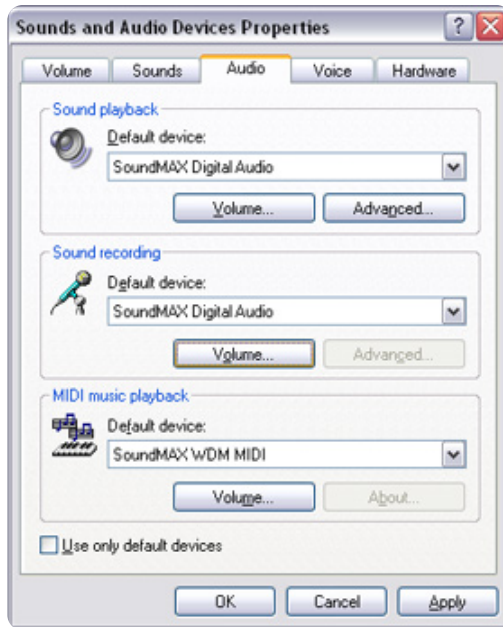
# Sound Settings

**Written by:**
**Ronnie Tucker (KDE)**
**Jan Mussche (Gnome)**
**Elizabeth Krumbach (XFCE)**
**Mark Boyajian (LXDE)**
**David Tigue (Unity)**

W indows XP has several different ways of adjusting your sound volume. The easiest and quickest method is by left clicking the small speaker icon in your taskbar. This will give you access to the volume control and, by clicking a box, you can quickly mute your volume. Muting can also be done by lowering your volume to zero. More in-depth configuration is done by using Start > Control Panel > Sounds & Audio Devices.

From this one window you can adjust the volume, choose which sound devices to use for playback/recording, and adjust various hardware settings.

## Kubuntu

Similar to Windows XP, you can click the speaker icon in the taskbar to gain access to the volume. Clicking the speaker icon in the popup will mute/unmute the volume. The device settings can be altered in K > Application > Settings > System Settings by double-clicking the Multimedia icon in that System Settings window.

The 'Audio CD' tab lets you configure encoding/decoding of audio CDs (MP3, OGG, etc.) while the 'Phonon' tab is where the audio devices can be configured. The 'Device Preference' tab at the top of the window lets you choose which hardware to use for playback, recording, and video recording (webcam usually).
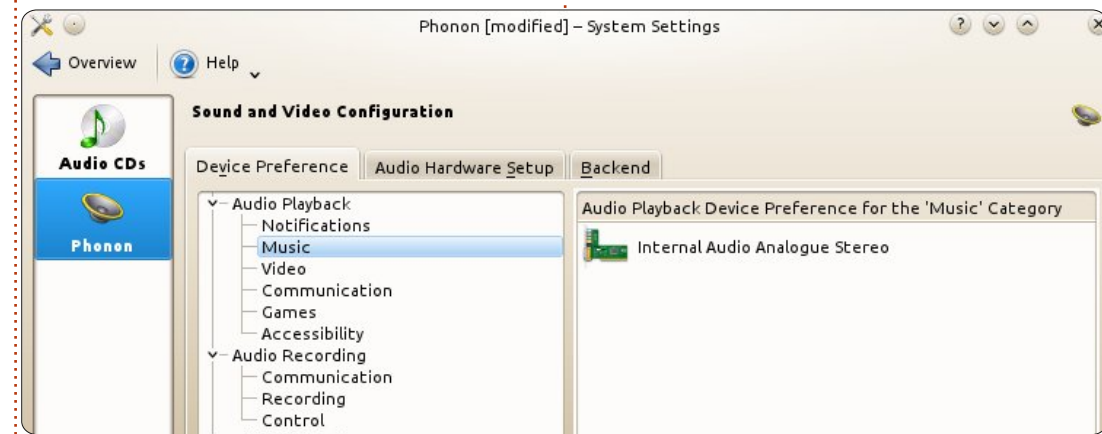
The 'Audio Hardware Setup' tab is where you can choose a sound profile, configure devices, and even test your speakers for proper placement.

Clicking 'Apply' will accept your current settings, and clicking 'Overview' will take you back to the System Settings main window.
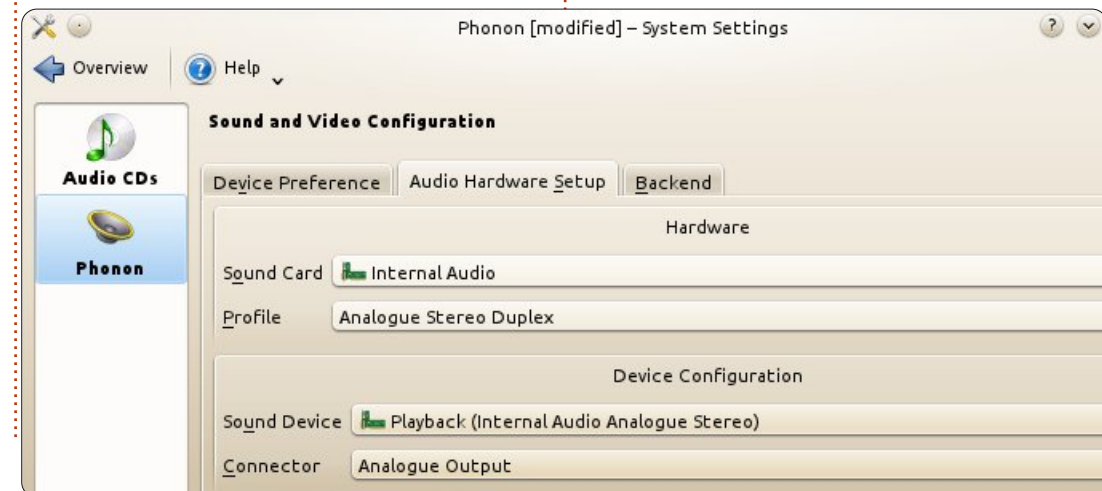
## Gnome-Shell

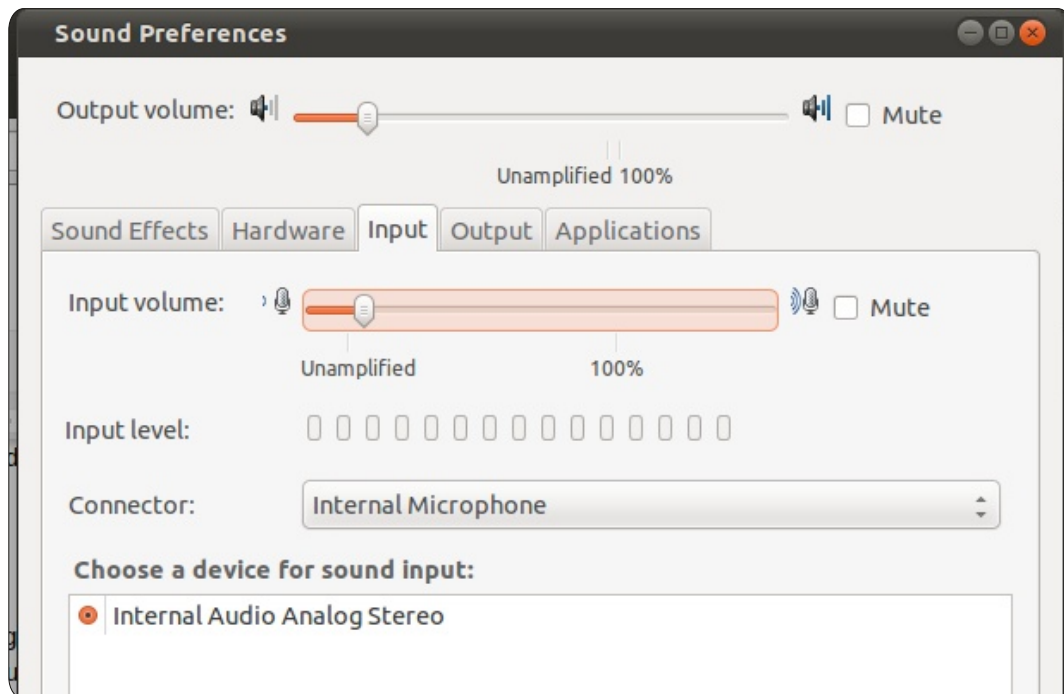The Gnome-Shell has a similar program, although not as extensive as in KDE. It can be reached by clicking: System > Preferences > Sound, or clicking on the loudspeaker in the top panel and choosing "Sound Preferences".

The sound preferences window has 5 tabs: Sound effects, Hardware, Input, Output, and Applications.

No matter which TAB you use, on top of the window is always the master volume bar, together with the tick box to Mute the sound. The master volume can be set here, can be set by clicking the loudspeaker icon in the top panel, or by simply placing your mouse over the loudspeaker icon and use the scroll-wheel.

For sound effects, you can chose either "No sounds" or "Ubuntu" as your sound theme. An alert sound can be chosen separately - which makes the sound theme change into "Custom". The alerts have a separate volume bar.
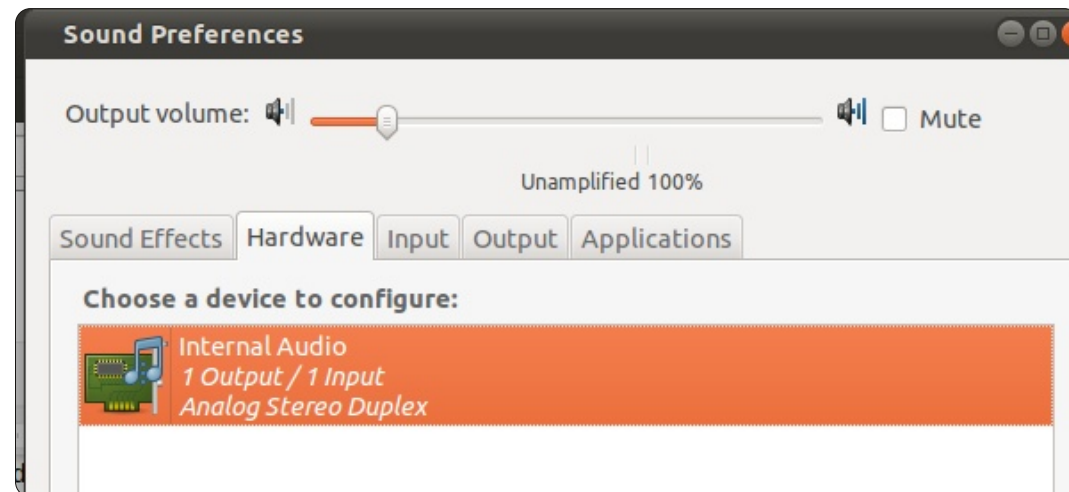
On the next tab, Hardware, you can choose which hardware you want to use, and change the setting for the loudspeakers to match the ones you have.

On the third tab, Input, it is possible to choose your microphone - should you have more than one. Also the volume can be changed here.

The output tab is similar to the previous one - with the difference that here you can select your out device, and set the balance between left and right.

The 5th tab, Applications, shows information about currently used programs. Here the volume for each program can be changed.

## LXDE

Volume control in LXDE can most easily be adjusted by clicking the speaker icon on the right-hand side (default location) of the panel. Clicking this icon will open a slider control that can be dragged up or down to adjust the volume accordingly. There is also a "Mute" check box; click in this box to mute the volume - independent of the volume slider setting. By default, this box is unchecked.

For more granular control over volume and gain settings, you use Alsamixer (the default application). Open Alsamixer from the Lubuntu Control Center (from the Main Menu select: System Tools >

# CLOSING WINDOWS
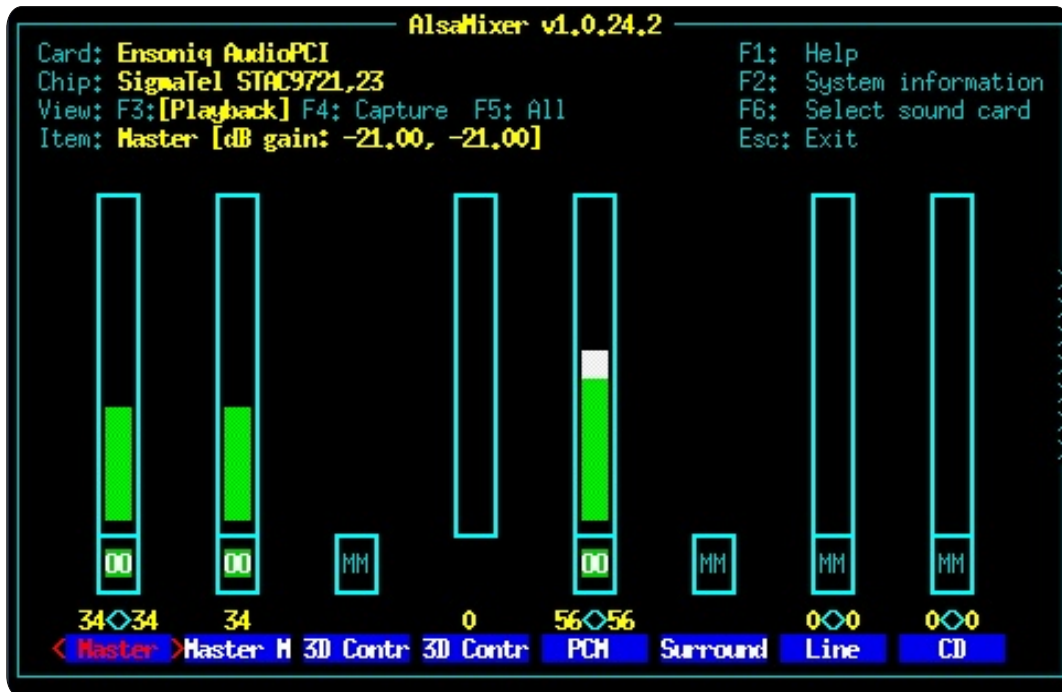




Lubuntu Control Center) by clicking the "sound" icon.

Alsamixer looks "primitive" compared with other GUI sound control applications, but it is chosen as the default because it is very "lightweight", which is what LXDE is all about. There are other apps. You can choose to install from the LXDE repositories that look more "finished" (such as gnome-alsamixer, shown below), but they require more overhead.

As you can see, Gnome Alsa Mixer has the same functionality as Alsamixer, but looks a little "nicer".

That said, they both do the same job in much the same way, but Alsamixer does it using a lot less system resources, and on older machines this can make a significant difference in performance.
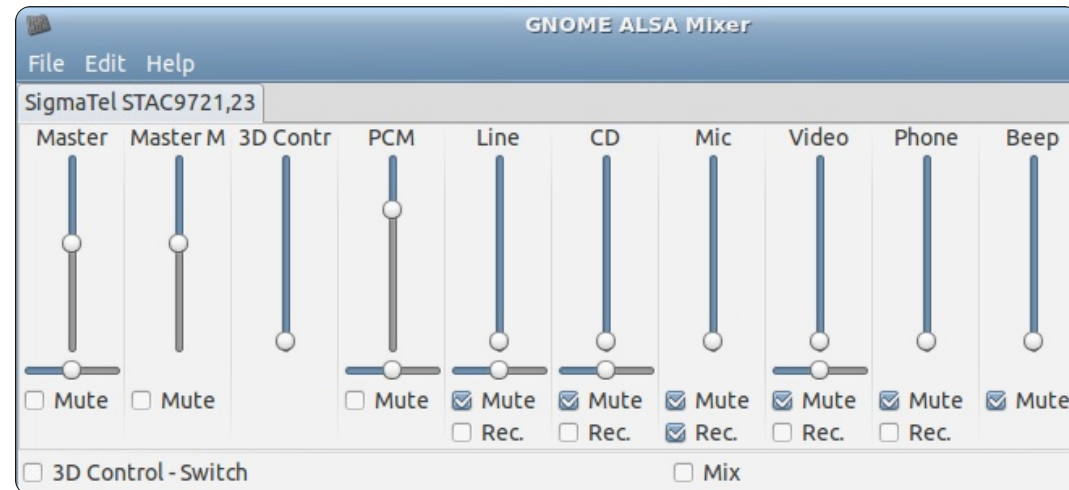
Since Alsamixer is the default LXDE master volume controller, we will focus on that. Also, it differs from other "GUI" apps (such as Gnome Alsa Mixer) in that it cannot be operated with a mouse; you must use the keyboard (how quaint!). This is a surprisingly simple and efficient application. At

the top of the window you'll find the name of the currently selected sound card, the name of the sound chipset in use, the currently selected view (the default is "playback"), and detailed information about the currently selected item (volume, device, or gain control). There is also a "key" defining the operation of several function keys and the "Esc" key; using these keys gives you access to help, system information and sound card selection, as well as exiting the program.

By default, the "playback" volumes are displayed. You can display the Capture gain controls by pressing the F4 key. All controls can be displayed by pressing the F5 key. Each control has a name (at

the bottom of the window), immediately above which is a pair of numbers (each representing the percent volume per channel - left and right, respectively), and a vertical "bar" that is "filled" to a percent that corresponds to the percent volume setting.

To select a control, press the right (or left) arrow key on the keyboard. To increase or decrease the volume for the selected control, press the up or down arrow keys, respectively. If the control you select governs multiple available devices (such as microphones), pressing the up/down arrow keys will change the selected device (rather than altering the volume, which is a separate control). When you are done making

# CLOSING WINDOWS

adjustments/selections, press the "Esc" key to close the program.

## Xfce

By default, you can open the most basic volume control in Xubuntu by clicking on the speaker icon in the top right hand side of your panel.
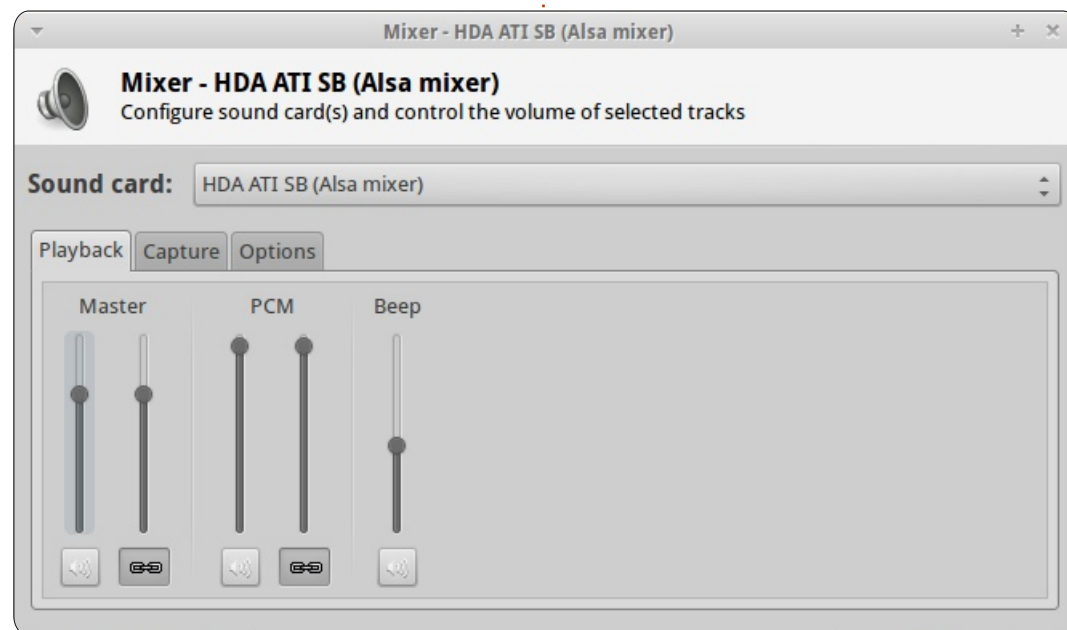
The first selection on the menu is "Mute" which you can select to mute your sound. Once muted, a little red "x" will show up on your speaker in the panel. To unmute you can open the menu again and instead of "Mute" you will see "Unmute" and you just select that.
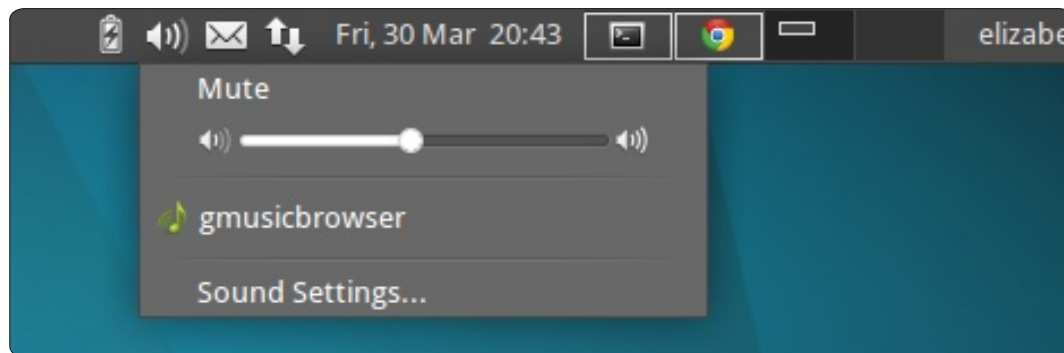
The volume scrollbar in this menu can be used to directly adjust the Master volume.

For more control than just your main volume, select "Sound Settings…" from that menu, this will launch the xfce4-mixer.

If you don't see any controls coming up automatically, click on "Select Controls…" to select additional controls that you may be able to manipulate for your card. From this menu you can adjust the sound levels, click on the speaker icon under the levels to mute any controls, and click on the link icon under the levels to adjust the left and right speakers independently. You may also click on the "Sound card:" dropdown at the top to change settings for other audio cards, if you have them) and settings for microphones.

## Unity

If you need to make adjustments to the main volume in Unity you can either hover over the speaker icon in the top left and use your scroll wheel to make the volume go up and down, or you can click the icon to see the volume slider and adjust it from there.

When you click on the speaker icon, you will see the mute button, the main volume slider, buttons for your music apps (the default in 12.04 will be Rhythmbox), and Sound Settings. Clicking on 'Sound Settings…' will open a window where you can make more in-depth sound changes. It defaults to the 'Sound Effects' tab where you can change the default sound-effect theme, and change the Alert Volume. Also you will notice there is a volume slider at the top of this window labelled 'Output Volume', this is the same as the main volume slider. Now, if you look at the tabs on that window, you will see four more tabs other than the default 'Sound Effects' tab. The 'Hardware' tab will allow you to change which sound device (if your computer has more than one) to use, and it will also allow you to change the settings for the selected device. You will also notice a button that says 'Test Speakers'. Guess what that one does? The next tab is 'Input', and within this tab you can change the input volume,

**Next month we'll discuss adding/removing software, PPA's, and .deb files.**

On a day-to-day basis, I have two laptops open. One is a Windows XP box that belongs to my company. I use it for all my business requirements, mostly software development and work-related email. I used to keep personal files and applications on that same laptop, but ever since my company had to re-image that laptop due to the operating system getting fouled up, I decided it would be best to keep my work and personal activities on separate machines.

My personal laptop is a rather low-end Toshiba box (Satellite A205-S5843) with 2GB of memory which I purchased for under $400 a couple of years ago. I am currently running Ubuntu 11.10 on it. Other than Skype not showing video input from a USB-connected webcam, everything on that computer seems to work well enough.

While I have installed many different software packages on this laptop, there are only a few applications that I use on a day-to-day basis which make my life quite comfortable and productive. This article describes those applications, what they do, and how and why I use them.

## Password Gorilla

Protecting passwords can be a laborious task. It is a well known fact that using the same password on multiple websites is dangerous. If the password is revealed, a hacker will have access to a multitude of your websites, some that you undoubtedly will forget to change. But remembering many passwords, especially good passwords, is not easy. There are a number of password management applications that keep track of user names, passwords, and URLs for the sites that you have subscribed to.

On the Windows side, I have always been a fan of an app called Password Safe, originally written by the cryptology expert, Bruce Schneier (http://www.schneier.com/), and now an open-source application.

There may be better, more user-friendly apps out there, but I am certain there are no password management apps that are more secure than Password Safe. When looking for a similar sort of application for Ubuntu, I stumbled across Password Gorilla, an application with a database compatible with Password Safe, written in Python. Given a password database created in Password Safe, it can be opened and modified with Password Gorilla, and vice versa. The advantage to this feature will be apparent shortly (see Dropbox below).

When the application is first started up, a database is created. Access to the database is, of course, via a password. I suggest that a really good password be used. Personally, I use a short sentence in a foreign language transliterated into English letters. I keep my passwords segregated into folders: bank accounts, credit cards, entertainment (such as YouTube, Pandora), purchasing (such as Amazon, Ebay), news (such as Washington Post, Wall Street Journal), and of course computers (such as Full Circle Magazine, SourceForge, VMware). If you really want to use impossible-to-break passwords, Password Gorilla even offers the option to create random passwords for you to use for specific websites. One additional nice feature is that Password Safe is also available for Android smart-phones.

## DoIt

For those of you familiar with the GTD philosophy, DoIt is an application that implements the concept. GTD stands for Getting Things Done, based on the book of the same name written by David Allen. At its simplest, DoIt maintains lists of things to do - task lists, if you will. Tasks can optionally be organized by context or by project. Tasks can be scheduled or not. It's a very flexible system and quite intuitive even if you haven't read the reference book (but reading the book will help you manage and organize your life).

# MY STORY
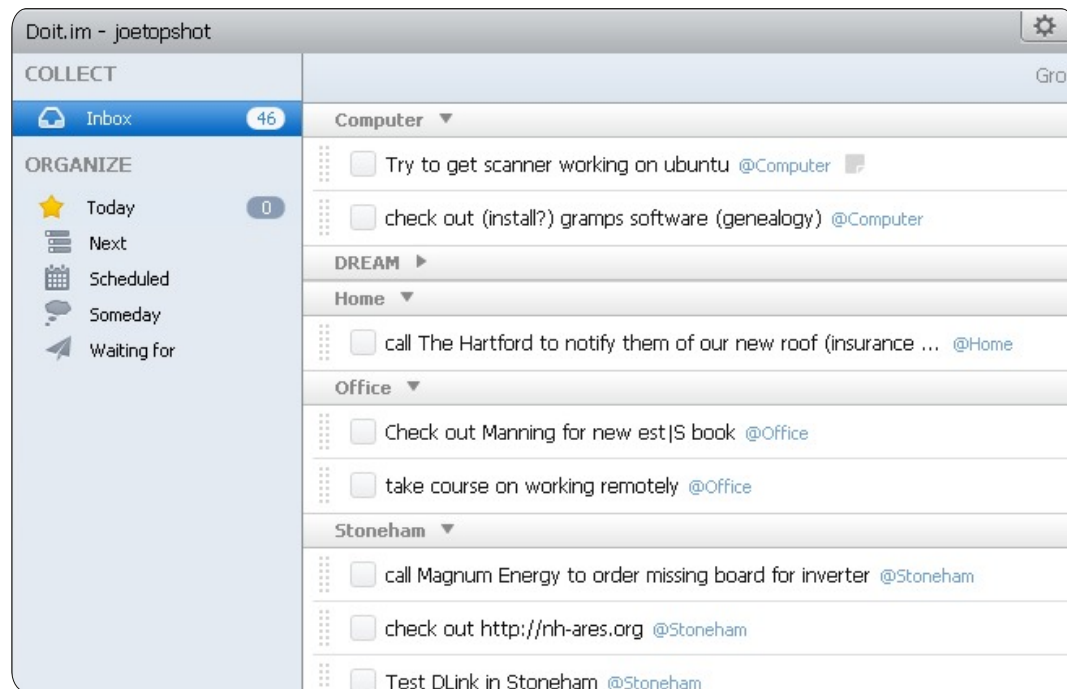




The bad news is that there is no native Linux version of DoIt. The good news is that it works out-of-the-box via Wine. No special wine options are required and the program works quite quickly on my laptop. There is also a web-based version of the app (accessible via http://doit.im), and even an Android version. They all synchronize nicely with each other. DoIt is probably the first program I run every morning, preparing me for the day's tasks.

## Evernote

One of the most popular programs around is Evernote. From their website: *"Evernote makes it easy to remember things big and small from your everyday life using your computer, phone, tablet, and the web."* I use it for keeping notes about everything. I have a folder for work notes, and a separate folder for personal stuff. I also have a folder where I keep credit-card and bank statements that I have downloaded as pdf files. What's really cool is that I can search my notes (including the pdf files I attached) for any text.
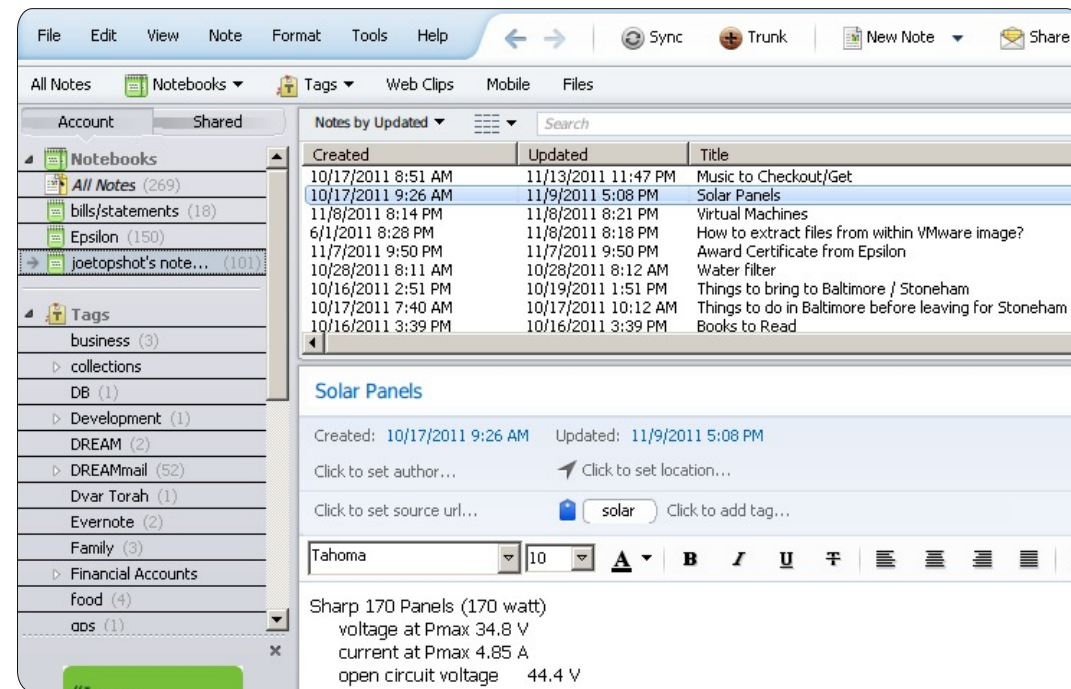
Entire web pages can be saved using Evernote browser extensions. This includes text, links, and images. If you're an MS Outlook user (yes, that's a Windows product), then Evernote's Outlook extension can automatically capture all or part of any email. Similar to DoIt, there is, unfortunately, no native Linux version of Evernote available. But, similar to DoIt, Evernote installs and runs easily through Wine. There are also web and Android versions of Evernote.

## Moneydance

Once upon a time I was a user of the very popular personal financial software called Quicken for Windows. I used it for a number of years until, one day, the software notified me that I needed to download (and purchase) an upgrade version as my version was too old. As I had already been moving my personal computer activities to Ubuntu Linux, I decided to look for a good, free, financial package that would run on Windows and Linux. I looked at a number of different packages but none of them held my interest. In the end, I opted to spend some

money and bought a commercial product. I cannot recall what I spent originally on Moneydance, but today it costs $49.99 (they also accept Euros and British pounds). The product works on Linux, MacOS, and Windows boxes (it's written in Java). I originally used Moneydance on a Windows laptop. When I switched to Linux, I only had to install the software on my Ubuntu machine (no extra cost for switching platforms), and copy my data files. It worked flawlessly. Today, I use Moneydance to manage my checking accounts, credit-card accounts, and investment accounts. I'm quite happy with the product; they update it fairly regularly.

## Manilla

Unfortunately, Manilla is available only for users in the USA (or who have financial accounts based out of the USA). This is a web-only based product, and so is platform neutral. Since their website says it so much better than I can, here is what they say the product does: "Manilla gathers all of the information you need to manage your bills and other important accounts, and puts it in

one easy, organized overview, available 24/7. With one password, Manilla also lets you know when anything is coming due with automatic reminders. Say goodbye to hassles and late fees!".

Before Manilla, here is how I handled my credit-card, utility, and other bills: A bill would come in the mail (or via email). I would note the amount owed and when the "pay by" date was. My note would contain the bill account, amount, and "pay by" minus approximately 7 days. I would then use DoIt (see above) to note that I have to pay one or more bills by the date that I noted. It was clumsy but it worked. Then my wife and I built a second home in the mountains of Maine (where I tend to work from as much as possible). Now, I had the problem of having to forward my mail periodically. Just remember this: the best definition of the word "oxymoron" is the U.S. Postal Service. Too often, I would end up paying late fees. The mail wouldn't arrive on time, or I would forget to note the amount and date of when the bill was due. Manilla has made my life a lot easier.

The scary thing about Manilla is that you have to trust them, as you

obviously have to give them your username and password - along with the answers to any and all challenge questions to all of your accounts. It doesn't work with all of my accounts (there are still 3 accounts I need to manage manually). But they now track my mortgage payments, all my credit-cards, gas, phone and electric utility bills (both homes), as well as my checking and saving account statements.

What's really nice is that the statements or bills from each of these accounts can be stored indefinitely on their site. I no longer need to keep a paper copy in my file drawer. Nevertheless, I decided not to take advantage of this feature. I download all account statements (as pdf files) and store them inside of Evernote. By having an unique Evernote tag for each account, I can conveniently see all statements for a particular account with one click of the mouse.

## Thunderbird

For email, in my opinion, this is the best product available on the Ubuntu platform. I won't really discuss it much as so much

information is available about Thunderbird. When I originally started using Ubuntu, my first email client was Thunderbird. So many articles spoke of the wonderful features of Evolution, I decided to give that program a try. I stuck with it for almost six months. In the end, the frustration factor was too high, and I switched back to Thunderbird. It's not perfect, but I use it for a significant amount of time each day, for both email activity as well as for reading RSS/ATOM feeds.

## Dropbox

This is such a cool app! It runs on Linux, Windows, Macs, and smart-phones. You define a special "dropbox" folder, and place whatever content you want into the folder. This can include pictures, documents, music, etc. Dropbox automatically synchronizes the equivalent folder on each computer that has Dropbox installed on it. For example, whenever I purchase an ebook, I place that book in a sub-folder of dropbox called "books". I can then read that book from any of my computers including my Droid-X smart-phone. This way, I

always keep my library with me.

I also have a separate folder wherein I store the Password Safe / Password Gorilla database. So if I add a new entry on my personal computer, it will be automatically updated and made available on my work computer. Note that Dropbox is not inherently safe from prying eyes. I would not store any personal information in my Dropbox folder that is not encrypted by me. For example, I would not store my Moneydance database in Dropbox. There is also a limit as to how much you can store for free. By default, the limit is, I believe, 2GB. If you get other people to sign up, that amount will increase. For $99/year, you get 50GB.

## Zotero

I've been using Zotero for several years now. Zotero is a plugin for Firefox, Chrome and Safari, that captures any and all information about a web page. A new version of the application runs as a stand-alone program on all platforms, including Linux. As their website says, "Zotero collects all your research in a single,

searchable interface. You can add PDFs, images, audio and video files, snapshots of web pages, and really anything else. Zotero automatically indexes the full-text content of your library, enabling you to find exactly what you're looking for with just a few keystrokes." I frequently snapshot news articles using Zotero, knowing that the articles will soon-enough disappear from the hosting news site, and this will be the only way to keep copies of those articles.

Six months ago, I discovered Evernote. Personally, I'm in a bit of a quandary, not really knowing if it still makes sense to use both Zotero and Evernote or not. They're both high-quality applications, and I'll leave it to the reader to decide which if not both applications to use.

In summary, the above programs (in addition to Firefox) probably represent well over 90% of what I do with my Ubuntu-powered laptop. I hope at least one of these applications has piqued your interest and will also make your life a bit easier.

# 16x16 SUDOKU

Numbers 0 to 9 and letters A to F are to be filled into the 16x16 grid so that every row, every column, and every 4x4 box contains 0 to 9 and A - F.

**Solutions are on the second last page.**

Puzzles are copyright, and kindly provided by, **The Puzzle Club** - www.thepuzzleclub.com

# MY STORY

**Written by Ronnie Tucker**

Since I can't give away free party hats, or slices of cake, I thought I'd spend a page (or three) showing the process of how an issue of FCM is made.

## Week 1 - The Deadline

Usually the first (or second) Sunday of the month is the writers' deadline for the regular folks. But, roughly two weeks before the deadline, I send out my first nag-mail reminding writers about the deadline. I'm pretty sure it's ignored, but I do it anyway.

One week before deadline, I send out another nag-mail telling the authors that time's getting on. I'm pretty sure they ignore this one too, but I can't prove it. As time passes, I'll start to get articles coming in. Not so much a gush, more of a trickle.

I have to compile: I Think, Letters, Editorial, My Desktop, Closing Windows (just the Windows and KDE parts), and now the GIMP tutorial.

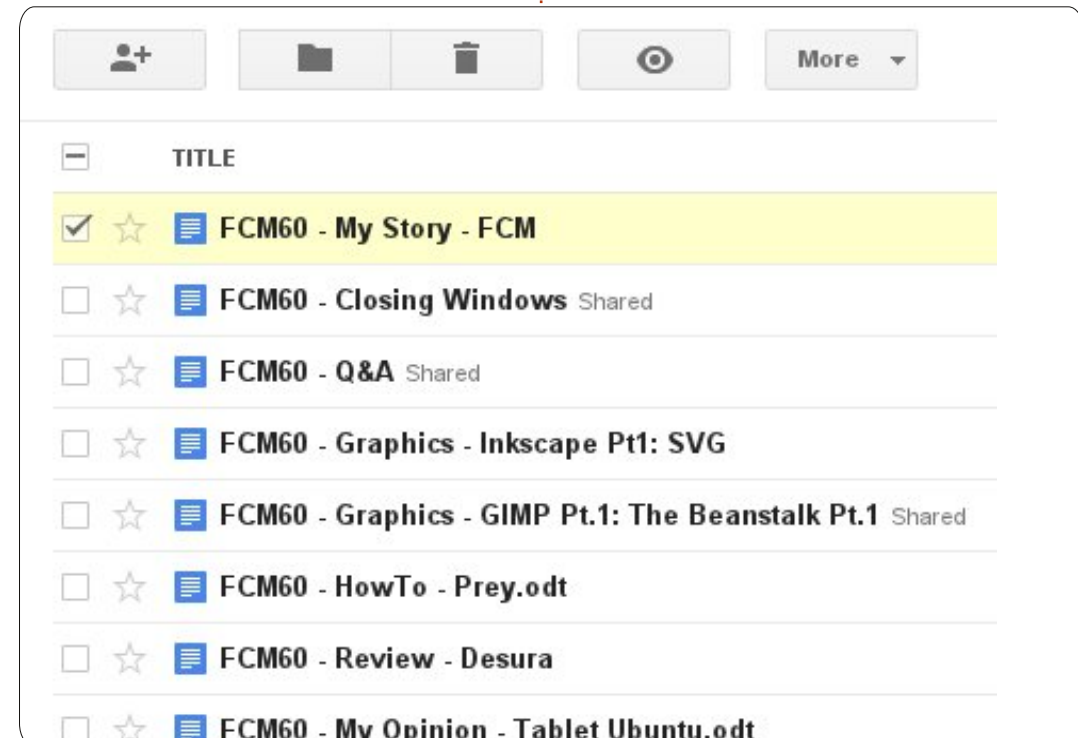Then, two days before deadline is my final nag-mail. It's around about this time that the writers start panicking and email me their finest excuses about how the dog ate their laptop, or something similar.

## Week 2 - The Proofreading

Once I have all the articles, I put them in a folder on Google Docs and set the proof-readers loose on them. It's usually messy, and it's here that they catch who's using UK spelling instead of US spelling (usually me), and who still doesn't understand how to properly use a comma (me again).

One week after releasing the proof-readers, they'll have pored over the articles, fixed all the spelling snafus and grammatical goofs, and tweaked any sentences that need clarification.

At this point I invite Jens and the translation teams to the

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**FCM#60 deadline is today.**  📁  Inbox  x  | Full Circle  x                    ⬇ 🖨 ⬀

**Ronnie Tucker**                                          1 Apr (6 days ago) ☆  ↩ ▾
to Charles, Elizabeth, Elmer, Gord, Greg, ilavenil, Jennifer, Lucas, Riku, Michael, Robert, Ryan, Jim ▾

Hah! **Just kidding!** 😊

Deadline for **FCM#60** (5th Birthday Edition) is next Sunday, **08th April**.

I want to thank all of you for staying with me as long as you have. FCM would never have lasted this long without you guys! ⭐

Here's to another year!

Help yourself to some cake: 🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰🍰

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**TITLE**

☑ ☆  📄 FCM60 - My Story - FCM
☐ ☆  📄 FCM60 - Closing Windows  Shared
☐ ☆  📄 FCM60 - Q&A  Shared
☐ ☆  📄 FCM60 - Graphics - Inkscape Pt1: SVG
☐ ☆  📄 FCM60 - Graphics - GIMP Pt.1: The Beanstalk Pt.1  Shared
☐ ☆  📄 FCM60 - HowTo - Prey.odt
☐ ☆  📄 FCM60 - Review - Desura
☐ ☆  📄 FCM60 - My Opinion - Tablet Ubuntu.odt

Google Docs folder so that Jens can begin making the epub edition and the translators can begin translating the text while I'm making the PDF. Speaking of which...

## Week 3 - The Scribus

This is where Scribus comes into play, and I lose my entire weekend. I usually copy last month's Scribus folder, rename it, and use it as a template for the new issue.

I always start by editing the issue number, month, and year first, then start from Command & Conquer and work my way through the issue removing the old text, adding the new text, inserting images, formatting text, and generally trying to make things look pretty along the way.

Along the way, I'll take a rest from Scribus and head over to the Google Currents Producer page and import the articles from Google Docs into a Google Currents edition. This doesn't take too long (couple of hours at most), and, once it's done, I can queue it up for release on a particular date and time.

Once I have a 90-95% complete PDF, I upload it to Crocodoc, and invite the proof-readers to a game of spot-the-inevitable-mistakes that I've introduced along the way. They'll highlight text/sections which they see as needing fixes, and I'll make those corrections before releasing the PDF.
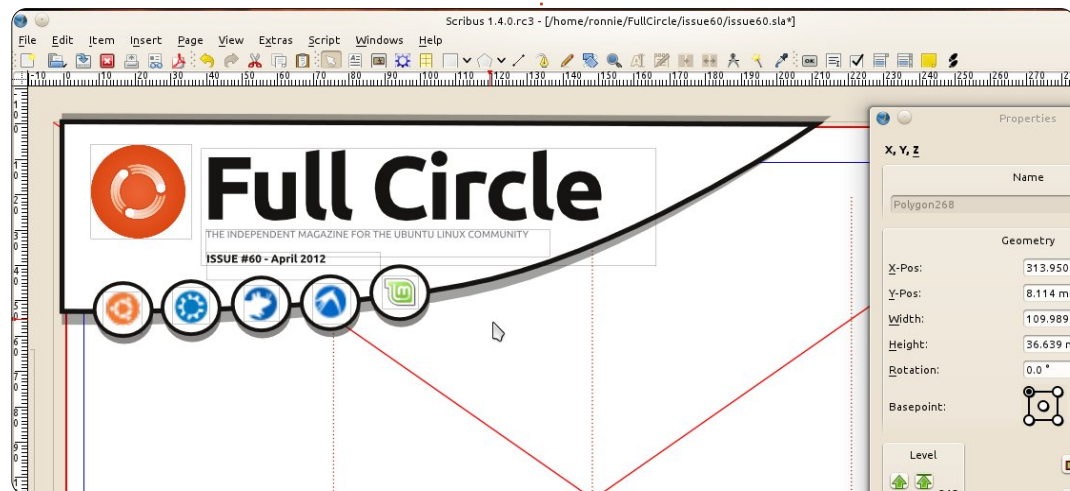
## Week 4 - The Release

Once the PDF is 100% complete, and (hopefully!) free of errors, I'll upload it to the FCM site and announce it to the world. First via the mailing list, which I hope you've all signed up for. Then, I'll inform the Ubuntu News mailing list of the new arrival, which they put in the Ubuntu Weekly News. I then announce it on Facebook, Google+, Twitter, and on our Ubuntu Forums section.

Once that's done, there's still work to do. I have to package up the Scribus files and put them out for our beloved translators to grab. By this time, they'll have most of the text translated and begin their side of things, Jens will be busy with the epub, and I'll go to Google Docs, create a new folder, and the whole process begins again...
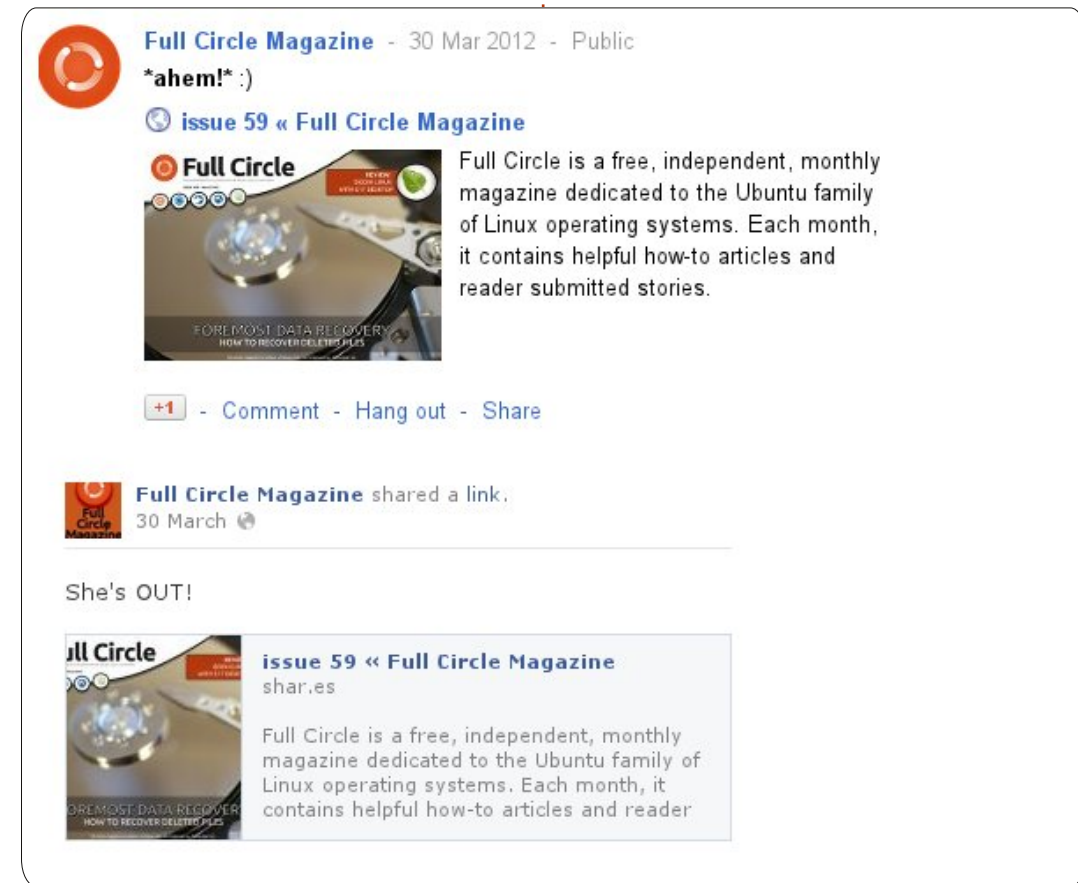
Canonical has announced plans to have Ubuntu 14.x ready for tablets and smartphones by 2014 but could that be too late? Are tablets a fad - much like PDAs and assorted mini electronics from the recent past?

First, let me define tablet for the purposes of this discussion. I'm going to omit the iPad since it uses the Apple iOS in lieu of Android. I'm also going to ignore tablets based on Windows 7 since that's a full OS and not a truncated version of something else (plus I know of just one tablet that actually runs it, and that's the Acer Iconia W500 that comes with a detachable keyboard making it a netbook minus the screen hinges).

That pretty much leaves the Android based devices, most of which sport 1:1 netbook specs (1GHz processor mated to 1GB RAM).

So do tablets look like a fad to me?

First you have the issue of inconsistency, to wit:

• Care to guess what version a particular tablet carries? Doesn't matter the price or size, chances are even the person or store selling it has no clue. You might find an expensive tablet packing 2.3 Gingerbread while the inexpensive offering has 4.0 Ice Cream Sandwich. My favorite? The Sylvania tablet being sold by a local store that originally came with 2.x but, somewhere down the line, had a sticker placed over that part of the box with just "Android" being listed for the OS (you could still see the 2.x entry through the sticker, though).

• Peripheral acceptance. Some come with USB connections and card readers, some don't. Better look before you buy, and don't assume that USB can be used to transfer files to your tablet. Some do, some don't.

• Wherefore art thou app store? Does your tablet of choice come with the Google Android app store or does it come with the one from outer Mongolia? Good question, and something you're not going to find out until opening the box. Buy a Nook Tablet or Kindle Fire, and you may soon discover that both use proprietary app stores charging more than Android's for the same apps (and both will try their level best to keep users from sidestepping to the Android version).

• On the topic of app stores, it may be best to state at this point that apps are not programs, they are wannabes. An app that can open Word documents and do minor edits cannot be considered a full word processor. What office suites I've seen and used through various stores are pale comparisons to even LibreOffice (which hopes to have a tablet offering sometime this year).

• Pricing. I have a netbook with the specs mentioned earlier - although it does have a 250GB HDD. I'll send it to you for $500 if you're interested. Too high? Then, why would you consider a tablet with the same basic specs plus a minuscule flash drive (usually 10GB or less) a great deal at the same price? Think about it. Even the Fire and Nook Tablet, at $200 to $250, are priced in netbook territory, yet pack puny flash drives (and the Nook reduces their version to 1GB with the other 8GB reserved for Nook apps or books).

• All the configuration allowance of a cinder block brick. Come to think of it, I can at least paint the brick, but doing anything with a tablet is forbidden. Want more RAM? Buy a computer. Battery weak? Few allow for a change by the user. Want to swap Ubuntu for the OS? Check around and you'll discover most of these are locked tighter than Fort Knox. On reflection, tablets are consistent in this area. Oops, wrong category.

• How about screen resolution and similar considerations? I've seen small 7-inch versions with sparkling screens and great video capability, while some of the 10-inchers sport archaic resolutions similar to the Windows 95 era and couldn't play a

YouTube video if their life depended upon it.

• Then you have the posers such as the Nook Tablet and Kindle Fire. Are they tablets or not? More not than anything else, these are essentially e-readers pimped with browsers and with limited function otherwise. Don't believe me? Buy one and see how much flexibility you have.

And these problems are just the tip. As with any new software or technology, there are initial teething problems, but Android has shown an ugly side mainly because Google released the source code to everybody - without any guidelines.

Oh, and did I mention that Android has really never gotten over the fact they started as a smartphone OS? Most of the apps you'll see were designed as smartphone time killers while waiting for a plane or bus.

Think I'm being overly critical? Being retired, I have an ample amount of time on my hands and routinely visit local retail stores. As such, I've gotten to know the clerks in various electronics sections and was mildly shocked to discover that

Android tablets sold during the Black Friday specials had a return rate after the holidays of almost 50%. That's right, nearly half of the tablets sold were returned with the vast majority being sent back for not performing to customer expectations.

Meanwhile, the debate rages on. Will tablets progress far enough in the evolutionary chain to survive or will they go the way of previous but now doomed techno-wizardry?

Maybe the answer will come sooner than we know. Microsoft is set to release Windows 8 in the last quarter of 2012, and it's quite obvious it's designed for the tablet crowd.

For those that haven't tested the free previews, it's actually the Windows 7 Metro UI smartphone OS mated to 7 Home Premium. Microsoft proudly proclaims how fast 8 boots, and it does get up and running in 15 seconds, but it's smoke and mirrors. While 8 is ready to rock and roll, 7 is still grinding away for another minute or so in the background (and that was on my 2.2GHz dual core processor with 8GB RAM – imagine it on a 1:1

tablet).

But 8 has its own share of problems:

• It swallows about 12GB of HDD space once installed. Considering the average Android tablet I've reviewed has around 10GB, you can see the space issue. Problem is, cranking up the flash drive space also means dishing out some serious $ since SSD prices still haven't come down to less than $1 per GB.

• Efficiency is still an issue. Windows 8 is a facade pasted over Windows 7, so resource usage is still a tick heavy. On my 2.2GHz notebook running 8GB RAM, it routinely swallowed 20% at idle. With tablets packing just 1GB RAM on average, you can see the potential for sluggish performance (which is why many netbooks come with 7 Starter since it dispenses with the excess baggage that eats RAM).

• Software compatibility is questionable. At this time, 8 runs apps while 7 runs programs. As a result, you have OS schizophrenia where the desktops flip back and forth depending upon what's open

(app or program).

All of this tells me you're not going to find 8 residing on your cheaper tablets. In fact, the current Acer Iconia with Windows 7 runs about $550, and has just 2GB RAM mated to a 1GHz dual core AMD C-50 processor and 32GB SSD. Meanwhile the Compaq CQ-57 laptop with the same base specs plus a 250GB HDD and keyboard, runs just $250. Not only that, but the Compaq's hard drive, RAM and battery can all be swapped out for better options (both are sold at walmart.com by the way).

Sure, it packs a pound or so more than the Acer tablet, but I also get the extra weight of $300 plus tax in my pocket.

Now we're back to Canonical and their decision to make Ubuntu a tablet OS with limited flexibility. Is this going to be a wise decision?

To be truthful, Ubuntu is a secondary OS for most users who have suddenly discovered their original OS has bought the farm. Others, like me, are in the minority by using Ubuntu as their main OS (and blowing off Windows even on a new PC). Other than this, Ubuntu

# MY OPINION

hasn't exactly knocked the socks off the mainstream computing public. Care to remember the Dell debacle in which Ubuntu was offered as a primary OS in lieu of Windows? I know of absolutely nobody who bought one of these, nor have I seen any for sale on the secondary market.

But Canonical's decision to go tablet has met with less than spectacular customer approval as witnessed by the latest Distrowatch ratings showing Ubuntu losing its top spot to Linux Mint, by a comfortable margin.

Why? Ubuntu has gone to offering Unity as the one and only desktop option, although users have the option of adding another, like Xfce, Gnome, Cinnamon, Enlightenment, etc - unlike Windows or Android.

Unity may be great for tablets in which program options are limited, but it has severe shortcomings when used on computers with a lot of programs. When I tested Unity - with openArtist packing over 1,000 programs - I was mildly amused while the Applications area suffered a stroke attempting to load icons and headings for all

these programs. And that was on a full computer, not some tablet.

Meanwhile the once faithful are flocking to other camps.

Pardon the pun, but I haven't seen this much disunity since Windows issued Vista.

Then you have the issue of Canonical's corporate policy of not offering proprietary codecs and drivers, while others just don't seem to care. This might be understandable if it wasn't for the fact that when you attempt to play videos or music in Ubuntu, it immediately offers to download what it considers offensive to begin with.

Meanwhile Linux Mint (and others) just include the drivers and codecs right from the start.

But Canonical is going full steam into the tablet arena, and even recently introduced a smartphone app that can run Ubuntu, albeit a reduced version that must be run on an attached monitor via a dock (be realistic – smartphone screens barely run Android let alone Ubuntu).

And the Distrowatch numbers just keep fading.

I've seen this happen before when developers have failed to seek customer guidance. Remember the Lindows/Linspire/Freespire fiasco where some group thought customers would flock to an OS that offered limited possibilities and a software download system called CNR (Click and Run) - which was better titled Cut and Run since most of the listings were overpriced and outdated? Don't worry, few do, and it's best left to the discarded OS graveyard along with Corel's WordPerfect OS (which was free but only if you bought the $40 book that had the DVD included), or the infamous K-Mart and Walmart computers that ran awful internet services on archaic specs.

In Canonical's favor, though, is a secondary issue that many probably don't know. Ubuntu is incredibly popular in European countries where smartphones outsell computers by a wide margin, mainly due to high VAT (value added tax) figures that can add 20% to the price of new technology (meanwhile the

average sales tax in the U.S. is somewhere way south of 10%, with California jacking up the percentage). For these users, the tablet is king because its lower price means less in the way of taxes.

It's up to Canonical at this point to choose their path wisely, and I haven't seen that recently. Abandoning Gnome and KDE for just Unity is proving to be an unwise decision, and it may be time to consider going back to offering more than just one dinner on the menu. Unless tablets improve quickly, I'm afraid it could be curtains for that technology in the near future.

A Google search for the newest version of Gnome's desktop environment will bring up Gnome's website, Gnome's Wikipedia page, images of Gnome, etc. But, after scrolling past the obvious results, one can't help but notice the slew of slurs against Gnome 3. A trip to any Linux blog, forum, or opinion page, will reveal the vast numbers of Linux users who simply can't stand it. They say it's unusable. They say they want Gnome 2.x back. They threaten to switch to XFCE. In fact, perhaps the nicest thing I have read on the web about Gnome's new interface is that it, "at least handles better than Unity." Every now and then, after reading one of these blog posts about how Gnome 2 was so much better than Gnome 3, I log out of my current session, and log back in to Gnome Classic. Maybe the rest of the Internet is right, and I've just forgotten how great Gnome 2 was. Maybe I really will be more productive using a tried-and-true desktop environment.

## The old way:

Here I am back in 2010. The first thing I need to do is open up the article that I am writing. I move my mouse up to the places menu, scroll down until I see my documents folder, double click on my articles folder, double click on a_case_for_gnome_3.odt. Now, I want to verify that Gnome 3 came out in 2011. My memory's not that great, you know. So I move my hands from the keyboard back to the trackpad, go up to the applications menu, scroll down to the internet section, and scroll over to Chromium. Back to the keyboard, type wikipedia.org. Back to the trackpad, click on the open document, back to the keyboard...

Wait, I just remembered that I was expecting an email. Back to the trackpad, Applications > Internet > Thunderbird. Hmm, Larry hasn't emailed me back yet, so I'll just send him a reminder. Back to the keyboard. Once I've finished, I'll start working on that article. Back to the trackpad, and then back to the keyboard again.

I wonder if Larry is online for a chat. Back to the trackpad. Sure enough, he's online. Back to the keyboard. He wants me to email him "Document X." Back to the trackpad.

## The new way:

By now, I'm thoroughly frustrated with my computer, and all the wasted motions from keyboard to trackpad and back again. So I log back into Gnome Shell and type:

    Super > a case for... > Enter.
    Super > larry > Enter.
    Super > thu... > Enter.

What would have taken a considerable amount of effort in Gnome 2.x took a few keystrokes in Gnome 3. Switching back and forth between the article and Larry's email would have meant switching back and forth between the keyboard and the trackpad several times. In Gnome 3, my hands never leave the keys. It's like keyboard shortcuts on steroids. I don't even have to remember whether my email client is open or not. If it's not open, all I do is start typing "Thunderbird" to open it. If it's already open, I still just have to start typing "Thunderbird."

I guess the case that I'm trying to make is this: If you love the keyboard (and I'm guessing you do, otherwise you wouldn't be a Linux user), then I think you'll love Gnome 3. If you want to have multiple applications running at the same time, and want to switch back and forth between them quickly and easily, you'll be right at home with Gnome 3.

Not sure whether you're a keyboard connoisseur or not? Here's a test. When you use a menu item in an application, do you make a note of whether it has a keyboard shortcut? When choosing from a list of "auto-suggests" in a search engine, do you instinctively move to the Tab key? If so, then I have a pretty good feeling that you are going to like Gnome 3. Give it a try, and keep those fingers on the keyboard where they belong. They don't call it "Home Row" for nothing, you know.

# I THINK...

## Ubuntu 12.04 will be released on the 26th of April. Will you be upgrading?

| | | |
|---|---|---|
| Maybe | 40 | 9% |
| Yes | 329 | 75% |
| No | 71 | 16% |

**Yes [329]**    **No [71]**    **Maybe [40]**

## If not, why not?

I'll do a clean install instead. It is faster and cleaner than building on the foundations of a three-year-old system.

I'll wait a little bit for the early adopters to hit the wall.

Printer and Wifi may not work.

Not sure if the pae kernel will install on my Intel Single-Core Centrino laptop.

I've given up with Ubuntu because of Unity. I currently run Mint 10 as my main distro, but I've been playing with Mint 12 with Cinnamon. Looking forward to Mint 13.

Still not sure about the new Unity, and tired of having to reinstall drivers on every major upgrade.

Fedora or Linux Mint are looking like better choices.

I usually give it a few months before taking the upgrade plunge.

My 10.04 system is stable. Thank you.

GNOME3 and Unity don't support my dual monitors.

I dislike the "possibilities" given with Gnome 3. It's a huge step back.

Dislike direction Ubuntu is going, Changing distro.

Not sure my older computer can take it.

---

This month Jennifer (Ubuntu Games) would like to ask:

## With the recent boom of Kickstarter games, have you donated to the creative cause, or do you prefer to wait and see?

To give your tuppence worth go to: http://goo.gl/RPoJu

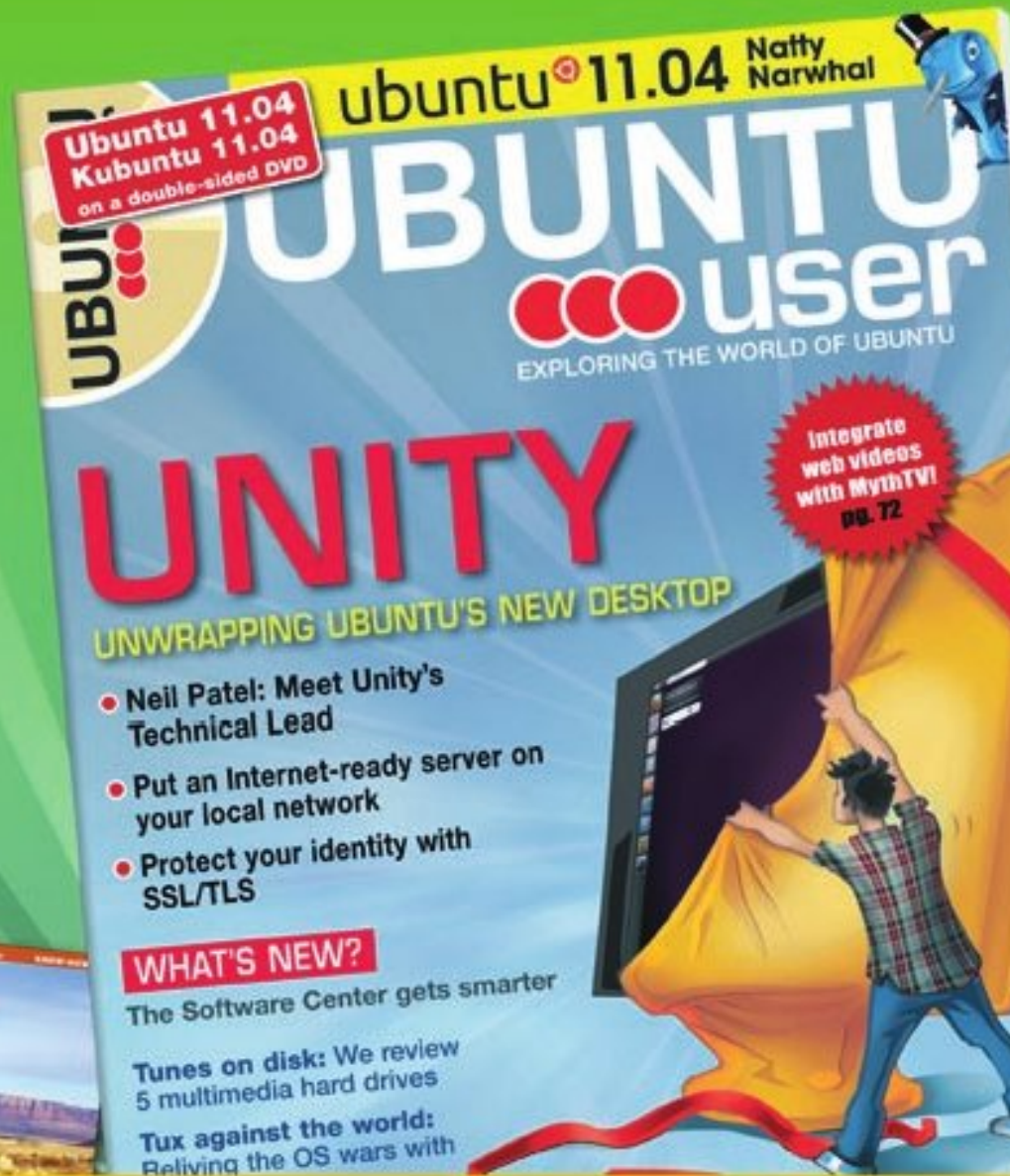Closing date for this question is **Sunday 13th May 2012.**

Ubuntu, or, for that matter, GNU/Linux, is really an excellent option for almost every job that computers may be used for (far better than Windows or MacOS) but gaming is one platform where we are indeed lacking when it comes to a totally modern OS experience.

Luckily, progress is being made, and many game developers (especially Indie game developers) are realizing the available Linux market, and our readiness to pay for it, has already been proven many a time on Humble Bundle releases where the average Linux user's payment is always the highest. Today, we're looking at Desura.

## What is Desura?

*"Desura is a community driven digital distribution service for gamers, putting the best games, mods, and downloadable content from developers at gamers' fingertips, ready to buy and play."* as

stated on http://www.desura.com/about . So how does one get Desura on Ubuntu and its derivative? Simply go to http://www.desura.com/install and click on Install Desura for Linux. It will download an archive, "desura-i686.tar.gz" in my case. Extract and

read the README file, which will provide you information on installation and other related subjects. Once you have installed the Desura game client, run it, and you will be asked to login. If you have an existing Desura account, login with that, or register a new one, as it is a fairly simple process.

Log in, and you are off to installing games - both free and paid. In the game section, you will meet some old friends like "Neverball", "Warsow", "Xonotic"(which is a fork of Nexuiz), "Alien Arena," and others. Also in attendance are top rated paid games. Just to name a few: "Braid", "World of Goo",

# REVIEW: DESURA

"Crayon Physics Deluxe", "VVVVVV" (if you have trouble pronouncing it just say V 6 times), "Trine", "Frozen Synapse," and many more. I installed three games from Desura: "M.A.R.S - A Ridiculous Shooter", "Vertigo" and "Smokin' Guns" (all of them are free). I have personally taken quite a liking to "Smokin' Guns" as it recreates the "Old West's" great atmosphere. It does lack

graphically in comparison to your modern shooters, but what it lacks in graphics it makes up for in the sheer exciting gameplay. The game has two modes, Single and Multiplayer.

Multiplayer is where the game earns its money, just join any of the many servers present and jump straight into action. My favorite game types are "Deathmatch",

"Teamplay" and "Bank Robbery". The games can be launched from the client itself, or from the installation folder - as they are installed locally. Desura is also about the community, and there you can interact with fellow gamers , make friends, join groups, and read fellow users' reviews. Finally, there is also a Development section where developers can release their games, do Beta

Testing and other developer related stuff.

Go ahead, install it, have fun. If you are playing "Smokin' Guns" and some "MKN" hurls dynamite at you, chances are it will be me.

**Good**
• Major step in making Linux attractive to gamers
• Easy Installation
• Is a social medium
• Great integration with the Ubuntu desktop.

**Bad**
• The game titles available for Linux are less in comparison to Windows.

# LETTERS
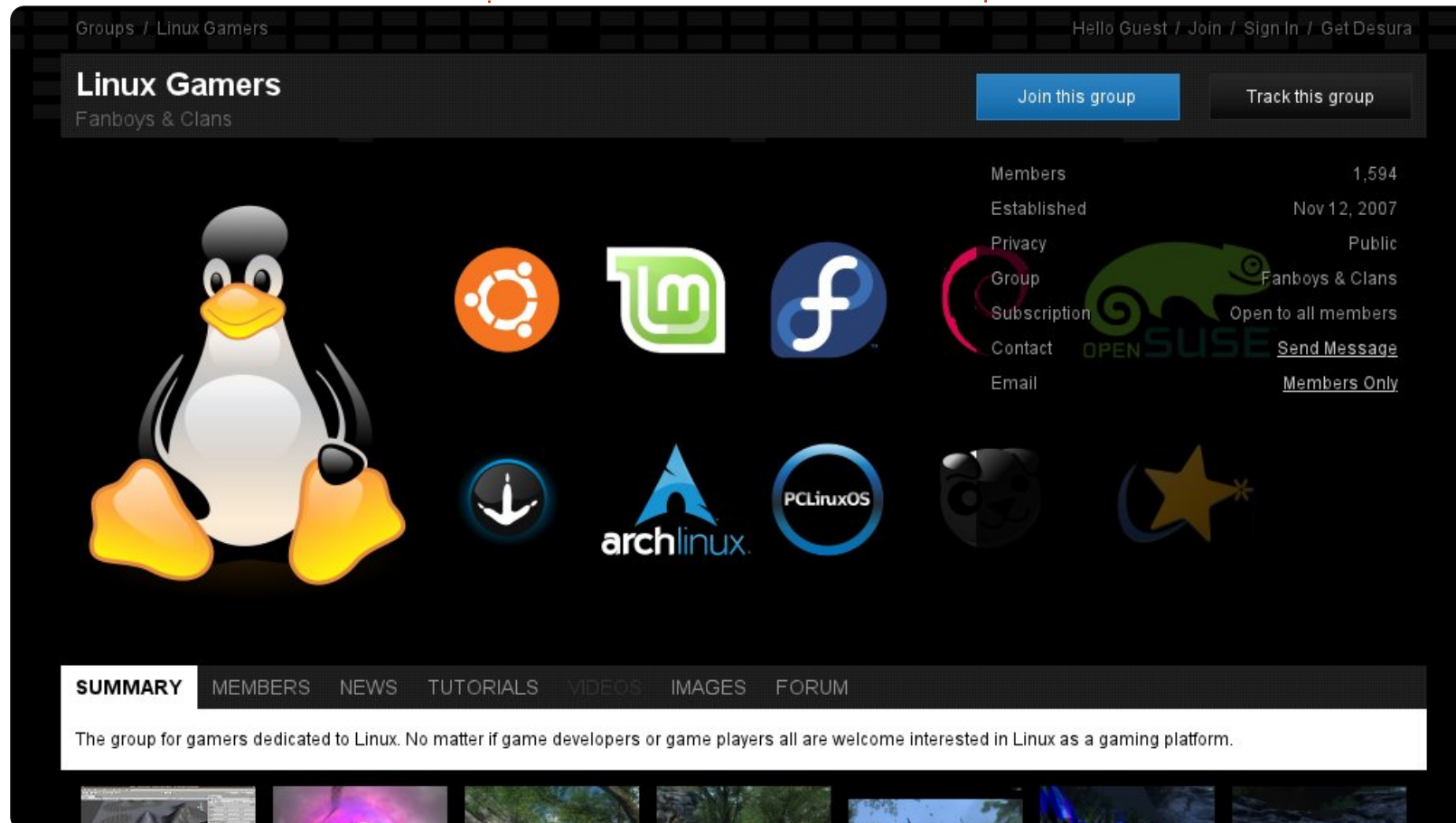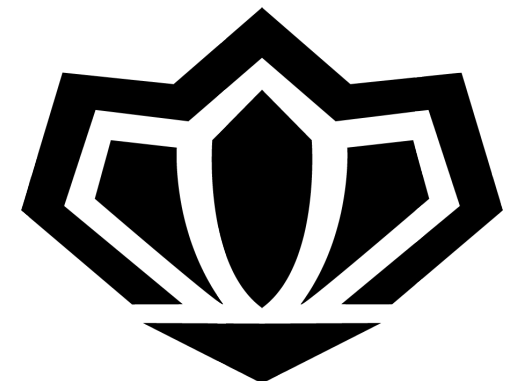
## Ubuntu Salesman

have been using Ubuntu for the past year. I absolutely have nothing bad to say about it at all. If anything, I try my hardest to "sell" it to everyone I meet. People in my workplace know that I love playing with computers, so they always come to me with questions. How do I speed up my computer? What is a good antivirus? Why does this always happen? My answer: You need Ubuntu. Or something along that line anyway. I even went as far as selling my "proprietary" media player, and buying one that works with Linux. I will never go back to the "Dark Side", I will always try to find a way around my computer issues...in Ubuntu.

**Matt**

## Hibernation

've been a long time Ubuntu fan until recently. No, this isn't a Unity hate mail, though I'm indifferent to it. My aggravation is hibernation. The last few releases stink! Every time I put my lid down the PC never recovers. It's a hard shutdown to get it back.

I've switched to openSuse Linux 12.1, and have had NO issues. It's more technical oriented to use, and the command line is different, but it's a solid distro. I'd rather be on Ubuntu.

I wonder if others have had the same issue?

**Matt Whittaker**

Gord says: *did you make any attempt to fix this? Providing the brand and model of your laptop is a start. I would Google: laptop-model suspend solved (Closing the lid should suspend, not hibernate.)*

## Gripes

thought I would share some of my gripes with you about Linux in general.

I've been using Linux for over 5 years now, and I like to share my Linux knowledge and get new people on board, but it is getting harder all the time. The Linux community spends all its efforts developing new User Interfaces, and fighting over them, when what we need is support for the things people really want, like: video support for MSN and Yahoo, and support for iPods out of the box. Everyone it seems has an iPod, which Linux does not fare well with.

I really love linux, but the lack of support for these things will doom this OS.

**Rob**

Gord says: http://ubuntu-install.blogspot.ca/2011/04/connect-ipad-and-ipod-with-ubuntu.html

## MS Exchange

read the article about the use of mail in combination with MS exchange. At my office they are using exchange in the cloud (office365). The existing plugins are incompatible with this version.

After a very long search, I found DavMail. From the site (http://sourceforge.net/projects/davmail/): DavMail is a POP/IMAP/SMTP/Caldav/Carddav/LDAP gateway allowing users to use any mail client with Exchange, even from the internet through Outlook Web Access, on any platform, tested on MacOSX, Linux, and Windows

I now use davmail, and I have almost nothing to complain about.

# LETTERS

I wonder why I never read about it before.

**Martin Stolk**

## More E17

Art Schreckengost supplied a nice review of Bodhi Linux, but had a major omission. He stated that he knew of only one other distro using E17 and Ubuntu. He missed the nicest distro out there (yes, my opinion), MacPup 528. MacPup uses E17, and is based on LuPu (Lucid Puppy, based on Ubuntu Lucid Lynx).

I have tried Bodhi and agree that the learning curve is there, and is a reason to rate Bodhi down a notch. There is no such learning curve to MacPup 528. I hope he tries it.

I would very much like for you to include contact information on authors, unless they do not wish to be contacted. I've published a few articles on online magazines, and wish the magazine would have sent me the feedback, or feedback would have been submitted directly to me.

**Gerald L. "Moss" Bliss**

Ronnie says: *If anyone needs to contact a writer, drop me an email. I always pass along any feedback I get for an author.*

## Directory Opus

In FCM#59 the letters section had an entry on Directory Opus, asking for a similar filemanager for Linux. I think

Ranger (below left) is what the writer wants: http://ranger.nongnu.org/.

**Ludo Beckers**

## Looks Familiar

This Canpolbabies Tricolour water teether "Steering wheel" (below) looks like a

Babybuntu (if it really existed) logo!

I'm thinking "Ubuntu for milk teeth" instead of "Ubuntu for human beings".
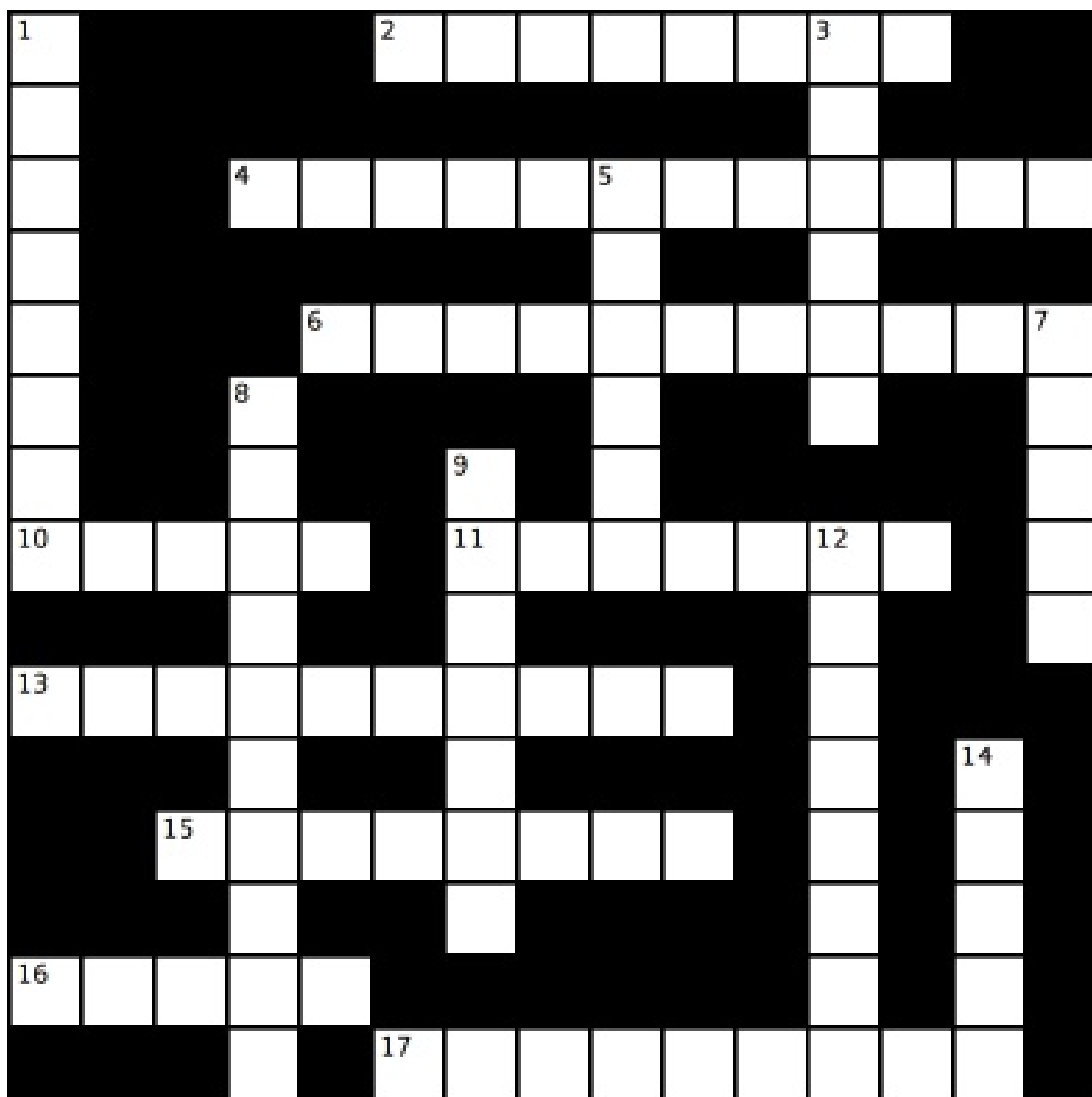
**Evgeny Kozlov.**

# PUZZLES

## Clues:

### Across

2      Motorcycle on filth in this multilevel game (4,4)
4      Unreeling, Nom unravels a free MMORPG (6,6)
6      Fire eater's story's a little funny fantasy at several levels (6,5)
10     A bone in your leg or a pretty old fantasy game (5)
11     Substitute a text adventure interpreter (7)
13     Juggle rocker tick for a game set beyond our world (4,6)
15     Long race or game trilogy (8)
16     Shake a popular game - 4 versions out so far (5)
17     Stadium not closed for a first person shooting game (9)

### Down

1      Twisted fortunes have ported a lot of games to Linux (8)
3      Snorkel garden has a multiplayer game in its infancy (6)
5      These games have lots of people shooting at the same time (6)
7      A boy, not Mr. Allan Poe, rescues his father in this 2D platform game (5)
8      Imagine armored vehicles, play this online multiplayer game (5,5)
9      Plan your own city using this simulator! (7)
12     This game engine is a-one in arabic (5,3)
14     You'll love this if you like rogue and Tolkien (5)

**Crossword by Ilavenil Thirumavalavan**

The solutions to all the puzzles are on the second last page of this issue. **No peeking!**

# Q&A

Compiled by Gord Campbell

If you have Ubuntu-related questions, email them to: questions@fullcirclemagazine.org, and Gord will answer them in a future issue. Please include as much information as you can about your problem.

**Q** Is the classic Gnome desktop available in Ubuntu 12.04?

**A** Yes, install gnome-panel, logout, click the gear in the Greeter window and select "GNOME Classic". You will probably also want to install CCSM, CompizConfig Settings Manager.

**Q** My laptop has Intel and Nvidia video adaptors. I understand something called Bumblebee can extend the battery life, by letting me disable the Nvidia adaptor. How can I install it in Ubuntu 12.04?

**A** (Thanks to **rodpott** in the Ubuntu Forums) Open a terminal and enter these commands:

```
sudo apt-add-repository
ppa:bumblebee/stable

sudo apt-get update
```

```
sudo apt-get install
bumblebee bumblebee-nvidia

sudo usermod -a -G bumblebee
USERNAME
```

(where you enter the username you log on with.) You can confirm that it's installed by running:

```
optirun glxspheres
```

To use the Nvidia adapter with a specific program, precede the program name with "optirun." For example, "optirun vlc" for the VLC media player.

**Q** What tools Can I use to monitor client computers on my network?

**A** Try **ntop**.

**Q** My jpeg files in nautilus are just displaying as a blank black box instead of a thumbnail of the actual image.

**A** In Nautilus, select Edit/Preferences. Click on the Preview tab, change the "Only for files smaller than" value.

**Q** I upgraded to a GeForce 520GT video card, and installed the drivers OK, but my second monitor is ignored.

**A** Run NVIDIA X Server Settings, and go into X Server Display Configuration.

**Q** I restarted Xubuntu 11.10 and Conky, that was always on the right side, now has moved to the left side.

**A** (Thanks to **wojox** in the Ubuntu Forums) Change:

own_window no
to: own_window yes

**Q** I have Ubuntu 11.10 desktop edition set up as a server. I want to run it "headless," no screen, mouse, or keyboard. When I try to control it using VNC, the resolution is too low.

**A** (Thanks to **Cancelor** in the Ubuntu Forums) See this message thread: http://ubuntuforums.org/showthread.php?t=1929145

**Q** How can I keep up to date with Ubuntu?

**A** Subscribe to the Ubuntu Weekly Newsletter: https://lists.ubuntu.com/mailman/listinfo/ubuntu-news

**Q** How can I save directly to a network drive from within an application?

# Q & A

**A** You just need to do this once: make sure your file manager is set to display hidden files. In your Home folder, scroll down to .gvfs, and right-click on it. Select "Make Link." The Link will not be hidden, drag it onto your desktop.

After making sure the network drive is mounted, from your application's save dialogue navigate to Desktop, select "Link to .gvfs" and the network drive will appear in it. One more double-click and you can save.

**Q** I'm building a new computer, but I'm keeping the hard drives that I have now. Do I need to reinstall Ubuntu?

**A** (Thanks to *QIII* in the Ubuntu Forums) Disable/remove all third party drivers prior to shutting down for the last time. Backup everything. It is a persistent myth that this "just works". I have had it work most of the time, but I have also had it fail.

**Q** I just built a home theatre PC (HTPC) with an Intel Atom 330 (1.6GHz, dual-core) and NVIDIA ION graphics processor. I believed that this machine should play 1080p no problem, but it lags on even 720p, and I get tearing with regular xvid playback.

**A** (Thanks to *Michael37* in the Ubuntu Forums) Try xbmc. I have an Acer Aspire Revo 3600 (dual-core Atom 330 and Nvidia Ion). I don't have any problems playing 1080p content. I am using the v190 driver and VDPAU acceleration. http://wiki.xbmc.org/index.php?title=Installing_XBMC_for_Linux

- - - - - - - - - -

## Two Tips and Techniques
### Day and Night

**I**'m currently evaluating what version or distro of Linux I will move to this spring. Even to me, my parameters are amusing. Here is perhaps the most unusual.

In Ubuntu 10.10, I have been using an applet called f.lux, and I like it a lot. It's not very exciting: at dusk, it reduces the brightness of my display, and makes it warmer. At dawn, it brightens my screen, and makes it cooler. No big deal, but it enhances my computer usage.

Of course, determining "dusk" and "dawn" requires knowing my latitude and longitude. Fortunately, Google Maps give me that information.

## Sharing Simplified

On average, I try one new version or distro of Linux a month. One of the features I always try, is to set up a shared folder, and to access shared folders on other computers. It always works, so I don't understand why people have trouble with this feature.

To create a shared folder on any distro which uses Nautilus as its file manager, I create a folder called "shared". In Nautilus, I right-click and select "sharing options." I click on "Share this folder," "Allow others to create and delete files in this folder", and "Guest access." Then I click on "Create Share." All done.

Depending on the distro, I am prompted to install Samba, then start again.

To access shared folders on other computers, I start the file manager. I select, "Browse Network." I double-click on a computer name, then on a shared folder. At this point, I can copy or paste files. It all "just works."

In Kubuntu, with the Dolphin file manager, I take the same steps, although the details are slightly different.

My wife is Chinese, so she requires the QQ video-conferencing software -- which works only under Windows. When I connect to her Windows 7 Ultimate computer, I am prompted to enter a Windows username and password. No problem.

In the past three years, I have never edited a configuration file. I have never used the Terminal for anything to do with folder sharing. It has always "Just Worked." If your experience is different, and you know why, I would like to hear from you.

The Ubuntu Women project started Career Days in September of 2011 in order to help women in our community learn more about technical careers related to Free/Open Source Software.

The inspiration behind Career Days was the lack of actual day-to-day information about various technical jobs. I wanted to hear personal stories from women in technical (or tech related) jobs to get a feel for what the jobs really entailed.

The following are excerpts and some details from the first three sessions by women in our community who have stepped up to share details about their careers:

### Elizabeth Krumbach, Linux Systems Administrator

*"A sysadmin is pretty much learning all the time; technologies change rapidly, the open source tools available are ever-expanding, and the needs of customers change over time."*

• What does a Systems Administrator do? A sysadmin may be called upon to help select and provision hardware, or work with peers and management to engineer solutions to computing problems or changing expectations within a company.

• What kind of training does a Systems Administrator need? Some people go to school, others are self taught by running their own servers at home or for their own local organizations or projects. There are even Ubuntu training opportunities, more details can be found here: http://www.ubuntu.com/support/training

• On a day-to-day basis, she may find herself working on: configuration of firewalls, mailservers, webservers, monitoring, content filtering systems, and high-availability (HA) virtualized clusters

More at: http://wiki.ubuntu-women.org/CareerDays/LinuxSystemsAdministrator

### Jane Silber, Developer turned CEO

*"I joined as a s/w engineer, moved in to team management roles, and eventually became VP of the company."*

• Interest in computing began in high school, she majored in Math/Comp Sci, and joined a software startup after graduation.

• She built a development career with jobs over the years in Japan, Washington DC, London, and more, before becoming a manager, and, eventually, CEO

• In many/most people's careers, there is a pivotal "stretch job" - the job that really pushes you beyond what you've done before. If she were to offer advice, it would be to be open-minded, to look for the stretch roles if that's what you want, to remember that you don't have to have done everything before.

More at: http://wiki.ubuntu-women.org/CareerDays/ProgrammerToCEO

### Amber Graner, Community Manager

*"I usually just smile, and remind them just because I don't write code doesn't mean that I am not technical. Nor does it mean I am not capable of understand or learning the concepts and processes behind FOSS, nor does it mean I can't get involved and make a difference."*

• She got to test all the latest automation that was being developed for the intelligence agencies (from '89-'93). Not only that, she helped test J-Stars as well, as it replaced the older SLAR technology during the First Gulf War. (Note: for her efforts in testing technology (J-STARS/SLAR) in deep attack missions during the first Gulf War, she was awarded a Bronze Star). It was also in the Army where she was first introduced to Unix, then Linux, via slackware - through some testing that the 82nd Airborne Division

# UBUNTU WOMEN

was experimenting with.

• Ubuntu Women Project member and author of several Drupal books, Emma Jane Hogbin told her once: *"Don't think everyone who joins an open source project has to become a developer. Use the skills you have, learn the ones you want, and just be yourself."* AWESOME advice.

• Don't discount any of your experience - regardless of whether you got a paycheck to do it or you volunteered. Work is work regardless of whether you can deposit money for having done the work.

More at: http://wiki.ubuntu-women.org/CareerDays/CommunityManager

Our amazing presenters have also committed to being available for follow-up questions related to their area of expertise, so definitely check out the logs and ask any questions that come up!

If you're interested in getting involved, please see the Ubuntu Women Career Days wiki page at http://wiki.ubuntu-women.org/CareerDays or email me, Cheri Francis, at cheri703@ubuntu.com.

While it is particularly inspiring to participants for the presenters to be women, these sessions are open to the whole community, and you don't need to be a woman to attend or present.

# CODEWORD

Every number in the codewords grid is 'code' for a letter of the alphabet. At the end you should have a different letter in each numbered box, and a word in English in each of the horizontal and vertical runs on the codeword grid.



| 23 | 26 | 10 | 12 | 17 | 16 | 26 | 19 |  | 17 | 18 | 24 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | 15 |  | 9 |  | 17 |  | 26 |  | 12 |  | 10 |  |
| 15 | 18 | 24 | 25 | 5 | 11 |  | 19 | 4 | 24 | 19 | 26 | 12 |
|  | 24 |  | 15 |  | 1 | 15 | 23 |  | 15 |  | 14 |  |
| 7 | 19 | 19 | 3 |  | 17 |  | 1 | 17 | 13 | 8 | 17 | 11 |
|  | 1 |  |  |  | 18 |  |  |  | 19 |  |  |  |
| 19 | 12 | 1 | 19 | 13 | 12 |  | 6 | 17 | 12 | 1 | 19 | 12 |
|  |  |  | 11 |  |  |  | 2 |  |  |  | 4 |  |
| 17 | 26 | 26 | 17 | 20 | 12 |  | 10 |  | 24 | 15 | 24 | 12 |
|  | 19 |  | 18 |  | 2 | 10 | 19 |  | 17 |  | 26 |  |
| 19 | 11 | 3 | 19 | 17 | 13 |  | 22 | 17 | 11 | 3 | 17 | 26 |
|  | 1 |  | 26 |  | 19 |  | 19 |  | 3 |  | 15 |  |
| 21 | 10 | 20 | 12 |  | 6 | 17 | 13 | 24 | 17 | 15 | 11 | 1 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

**Solutions are on the second last page.**
puzzles are copyright, and kindly provided by,
**The Puzzle Club** - www.thepuzzleclub.com

I don't know if you have noticed but there seems to have been an influx of games for Linux being announced at the start of April. First off, there are three (well two for certain, and one a maybe) via the donation crowdfunding service Kickstarter which helped out Novacut. We have Tim Schaffers's point-and-click adventure game "Double Fine Adventure" (not sure if it's been given a new name) http://kck.st/A9k3jH. It comes out for most major OSs: Mac, Linux, Windows, and Android, and, I think, IOS - thanks to the $3 million it raised via Kickstarter.

Next up is Brian Fargo's (founder of Interplay) RPG, Wasteland 2, http://kck.st/yDcMry. This raised an impressive $2.1million with 7 days still remaining. This will be available across Mac, Linux, and Windows, when complete.

Finally, there's the Shadowrun Pc game, for now simply called "Shadowrun Returns" by Jordan Wiseman (creator of Battletech, Crimson Skies, etc) http://kck.st/HgUlMj. Initially, this was supposed to also have support for Mac, Linux, and Windows, but, even though they have met and surpassed their Kickstarter goal, the game will be available for only Mac and Windows upon launch. They have said "maybe" they'll do a Linux release after launch, usually when game devs have said this they mean never, for example the folks behind both Bastion and Magicka promised DRM-free versions of their games and "maybe" a Linux port. Both of them have yet to appear. At least the folks behind Trine delivered on their promise for a Linux and DRM-free version of their game (still waiting on a Trine 2 Linux version).

We also have a fan-made Wing Commander which is officially endorsed by EA, which has a Mac, Linux (promised to be released shortly), and WIndows version. It's called "The Darkest Dawn" http://www.wcsaga.com/downloads/files/releases.html. The only problem being that EA is known for giving its support, and then, mere moments later, turning around and pulling it, causing fan projects to be shut down. There was a King's Quest fan project that suffered this fate. EA gave its consent, and then, mere days before the game was to be released, pulled that consent. I believe public outcry/bad publicity eventually made them change their mind.

I almost forgot about the upcoming RPG Age of Decadence by Iron Tower Studio http://www.irontowerstudio.com/ that is now taking pre-orders. They have announced that the game will be across Mac, Linux, and Windows.

There's even a playable beta, not sure if it's available for Linux yet though.

There are more crowdfunding game efforts on Kickstarter right now where the developers are promising Mac and Linux ports. The fact that Double Fine more than exceeded its goal by millions may have something to do with this. I either don't really know much about the folks behind them, or they are out of my preferred game genres. For example there are some FPS and RTS games seeking funding.

Let us continue our exploration on bsnes (http://www.byuu.org/bsnes), an emulator striving for perfection when it comes to realism in playing snes games. In the last edition of Full Circle, we discussed installation, rom purification, basic settings and first impressions. I recommend you to read that article before proceeding into details presented shortly. This month, we focus on different bsnes profiles and the manual editing of configuration files for precise tuning. Chrono Trigger is used as a sample game. We address some key points of the bsnes user guide, which can be read at http://www.byuu.org/bsnes/user-guide/.

## Bsnes not working after an update?

If you used the method described in FCM#59 to install bsnes (the workaround with .deb files), you might have noticed that, after an upgrade to version 0.87, bsnes fails to start. The reason for this is largely unknown at the time of writing. However, there is a simple solution: just downgrade back to 0.84 and stay there. Hopefully this annoying bug will be fixed in Precise 12.04.

## Profiles

Bsnes has three modes (profiles) of operation: accuracy, compatibility, and performance. Accuracy is intended for relatively new high-end machines, and, according to the bsnes homepage, it is "almost twice as slow as the compatibility profile". However, in practice, the differences between profiles are small, and it's difficult to determine which one is which - unless you look very carefully (see figures below: the first one is for accuracy, second for compatibility, and third for performance). As default, bsnes starts in compatibility mode. Accuracy and performance modes can be launched by navigating into /usr/games and running the files bsnes-accuracy or bsnes-performance.

I decided to use the compatibility profile mainly because my rig with E6750 processor, 4GB ram and 8800 gts graphics card was not up to the task of running accuracy mode. Therefore, all details presented below are tested for the compatibility profile only.

## Configuration files

The bsnes user guide is probably thorough enough for most users. Nevertheless, more advanced tuning is possible by manually editing the configuration files located in ~/.config/bsnes. Also, once you have customized the files, you can back them up for later use or to another machine, making the configuration portable. If you place the files in the same directory where the bsnes executable is located (that is, /usr/games in Ubuntu 11.10 32-bit), bsnes automatically uses those files.

I use VIM (http://vim.org) for editing, and highly recommend it for any power-user or professional working in the field. There's a

tutorial series on VIM starting in FCM #54 which I find quite comprehensive. However, if you don't want to spend weeks getting used to VIM logic, any text editor (e.g. gedit) will do just fine.

• The geometry file geometry.cfg can be used to adjust window positions (see figure below). If you experience problems with disappearing windows, delete this file and run bsnes again.

• Inputs are defined in input.cfg. At the end of the file, there's a list of shortcut keys for saving states, full screen mode, pause, reset, etc, which you can customize. Too bad there's (at least not yet) no shortcut for loading a cartridge. Hopefully in the near future...

• bsnes reads the rom file paths from paths.cfg which can be individually customized for different file types (i.e. you can save your snes and nes roms in different directories).

• settings.cfg essentially has the same information for general settings as the graphical user interface, and also some extras. For instance, you can add a video shader for better image quality by specifying the option:

```
Video::Shader =
"/home/%USERNAME%/.config/bsn
es/shader/HQ2x.OpenGL.shader"
```

The same thing can be accomplished from Settings -> Video Shader -> HQ2x.

**Note**: do not edit config files while running bsnes. This might cause unexpected behaviour and loss of unsaved game data.

## Final verdict on bsnes

As the program is clearly still in development, it is perhaps a bit unfair to call this "final". All in all, bsnes gets the job done well. The experience resembles authentic snes in a way that is uncommon for most emulators. The only drawback is the extensive use of computer resources. You must have an up-to-date machine to run the accuracy profile without glitches or tearing of sound effects. Luckily, the quality of emulation is also very good for compatibility and performance profiles, so you don't necessarily need to upgrade just for playing snes.

★★★★½

**Riku Järvinen** (rierjarv) is a CS major student from Finland who delves into the Linux and Open Source gaming world once in a while.

```
rierjarv@rierjarv-P5K-SE: ~/.config/bsnes
MainWindow = "+50,+73,1277,855"
FileBrowser = "+0,+0,640,400"
SlotLoader = "+128,+128,500,125"
DipSwitches = "+128,+128,400,280"
SettingsWindow = "+0,+0,640,360"
CheatDatabase = "+128,+128,640,400"
CheatEditor = "+0,+0,600,360"
StateManager = "+0,+0,600,360"
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
"geometry.cfg" [dos] 8L  267C                     3,1
```

It's pretty safe to assume most gamers have played Frozenbyte's fantasy side-scroller, Trine and Trine 2 on Xbox Live, PC, or Mac. But, now, open-source gamers can get it on the physics-based platforming experience too. Frozenbyte released Trine 2 for Linux in early April of this year, online co-op included! With the recent release of the Linux version, I was curious as to how the whole porting experience went for the staff at Frozenbyte. Jukka Kokkonen (Lead Linux Coder) and Mikael Haveri (PR) were kind enough to answer some questions for the FCM community.

**How does your mindset differ when working with Linux as opposed to other platforms? Jukka Kokkonen, Lead Linux Coder (JK)**

There probably isn't that much of a difference when working for Linux as opposed to other platforms. But there perhaps is some level of thought present that Linux probably isn't the usual gaming platform, and, as such, we're more likely to encounter various issues along the way. Despite how well we get it working on the development computers, there are probably going to be much more of those random cases, where the game refuses to work properly for some player - so more support requirement for the Linux version was to be expected. However, we are also hopeful that the Linux community is probably quite adept in solving these kind of issues, and thus we expected this to balance out the issues to some extent.

We would really have hoped to get it working "out-of-the-box" as much as possible for every Linux user - but a bit sceptical that it would be a feasible target. At least my personal experiences with Linux are that it still requires a little bit of do-it-yourself attitude - much less than it used to be 10 years ago, though.

A good example of these unforeseen issues is that the disk and network performance of my Linux work computer kept randomly going totally down to the muds. Kernel logs helped pinpoint the issue a bit, but I never figured out the exact reason, it was either a hardware issue or a Linux kernel issue. And after some Googling, I found a kernel workaround for it. Unfortunately, it would have required compiling a custom kernel. Now, I've done that before, nothing new there, but this time I felt a bit lazy and decided that just rebooting the computer every time it glitched was the easier way around. This just goes to show, that even today, one can expect to encounter some unexpected issues on Linux, but also, the solutions to the issues can often be found, as someone has already come across it and figured it out.

**When and how was the decision made to work on the Linux version? Mikael Haveri, PR (MH)**

We teamed up with the Humble Bundle guys for the first-ever company specific bundle, which was very well received. This also strengthened our belief in the Linux community, and made us realize that there is a definite market that we should cater to. Since we had to have Linux versions for the bundle, at first it was our priority just to create them for the campaign. Now, after that experience, I'm pretty sure the Linux versions of all the future games will follow more closely after the releases on other platforms.

**How was the overall process porting the game? (JK)**

On specific parts, it was quite easy. On some parts, there were little surprises, like not having the audio middleware available on Linux. The fact that we already had the code in a basically compile-ready condition for the gcc toolchain made things easier. So we didn't have to start fixing some compile issue trivialities. Also, because we had the Mac OS X port done, which also used things like SDL and OpenGL, the transition from that implementation to the Linux implementation was quite easy. For example, the base OpenGL renderer port on Linux was up and running in about a day or two when we used the Mac OpenGL renderer as a base. Of course there were some bugs to iron out, and tweaking to be done, etc, so it took much more than those few days to get the whole thing ready for release.

**Was there anything that really surprised you guys while working with this port? (JK)**

There were no major surprises, I think. A little bit of a surprise was how little time porting of some things took (such as the OpenGL renderer or some other parts of the code), mainly since those could be easily converted from the existing Mac port. But then again, there were some surprises that had the opposite effect on the time for porting, like the audio middleware not being available on Linux. If we would have had to do some code modules for the port from the scratch, like the OpenGL renderer, things might have been different.

Then there was, of course, all the random issues caused by different Linux distributions having a little bit of different libraries, window managers, etc. But, these didn't really surprise us. Though we perhaps couldn't anticipate what all of those little issues would be, we did know that there would be such. So far, the initial reports from users already show that there certainly are all kinds of small issues, mostly focused on the issues caused by the differences between the desktop window managers - but luckily, we've had no major issues so far. There's been nothing that we couldn't fix - or at least somehow have a workaround past the issues, with the helpful hints from the other Linux users who have already figured out how

to apply some workaround.

**What were your personal experiences with Linux prior to Trine 2's port? (JK)**

Personally, my experiences with Linux before the Trine 2 port were that I do have a Linux server running at my home, but I'm not really using it as my primary desktop computer. I've also worked for a couple of years on web portal technology back in the day, and that was basically all Linux development. I've also done some minimal freeware games, some of which I also ported to Linux - but this was more than 10 years ago. For the rest of the programmers who were involved in the Linux port, most of them I think have had at least some level of contact with Linux or other Unix systems during their university studies.

**Are you guys planning on releasing your future games on Linux as well? (JK + MH)**

From a technical point of view, I see no problem here. As we already have the engine ported on Linux, and assuming we'll continue to use our own engine for the next games, most of the porting work has already been done regarding Linux. (So I guess it mostly comes to the the expected sales and economics on the platform really.)

It is great fun to port to Linux from the perspective that it is such a proactive community - making our efforts easier and more fun. But, from an economic perspective, it all depends on the amount of Linux copies we sell and how the market grows. Although everything is looking good so far, it is yet to be seen how far the Linux game market will grow.

You can get Trine 2 for Linux at http://www.trine2.com. The standard edition, which includes a Steam key, is available for $14.99. For $10 more you can get the collector's edition, with some nice bonus items such as a digital artbook and original soundtrack. A huge thanks to Jukka and Mikael for their time!
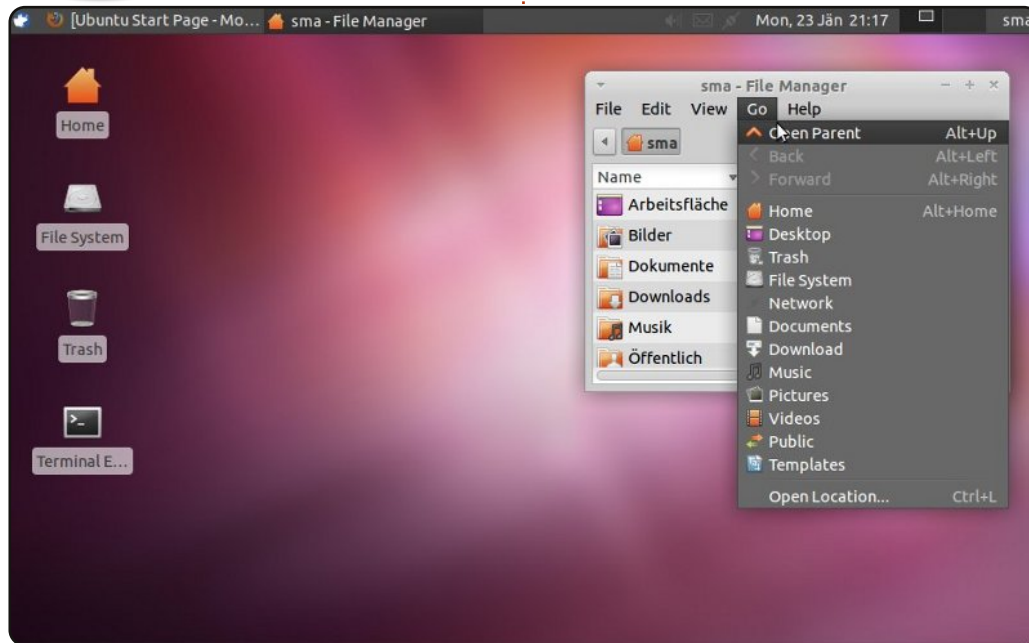
For those users who want to preserve the look and feel of Ubuntu with GNOME 2.x, I provide this desktop. Xubuntu with the original wallpaper from Oneiric (you can download it from: http://media.cdn.ubuntu-de.org/wiki/attachments/22/39/1110goneiric.jpg).

The font is Ubuntu (Regular), size 11 (Settings Manager > Appearance > Fonts)
The Title font is Ubuntu (Bold), size 11 (Settings Manager > Window Manager > Style).
The Theme is greybird (it's default in Xubuntu 11.10).
The Icons-Theme is Humanity (Settings Manager > Appearance > Icons)

**Martin**



I am using Ubuntu 11.10 on an HP Mini 110 Netbook. The interface is a customized Gnome, by following the "How-To" given in FCM#56.

I am finally feeling happy after making my Ubuntu look "classic". The end result is simple and lovely. The wallpaper is one of the preloaded set from Oneiric. I have removed extra panels, and made it look something like Windows.

All of my friends now think that I have applied some theme to my Windows OS.

**Murali Krishna**

# MY DESKTOP

My desktop is Ubuntu 10.04 with ambiance theme, screenlets, system monitor, and sensor applet in upper panel. I use my computer mostly for web browsing.

I've been using Ubuntu since Hoary, and I dual-boot with Windows XP - only to get a better picture from my analog tv tuner card.

System specs:
AMD Barton 2500+, 1.5 GB RAM, 120 GB HDD, and a 19" CRT screen at 1280x1024 resolution

**gorski**

Upon taking a required "Intro to Linux" class for my degree, I recently had the opportunity to try out Ubuntu. After learning the Linux command line, and getting comfortable with another OS other than Windows, I fell in love with Ubuntu. Now I run Ubuntu as my main OS, and occasionally use a Microsoft OS in my Virtual Machine.

Distribution: Sn0wl1nux/Ubuntu 11.04 natty
Desktop Environment: GNOME 2.32.1
Platform: i686
CPU: AMD Turion II Dual-Core Mobile M520
RAM: 4 GB

**David Darr**

# PUZZLE SOLUTIONS

## 16X16 SUDUKO

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| 9 | A | 5 | 0 | 7 | 3 | 1 | 4 | F | B | 2 | 8 | E | 6 | D | C |
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| 1 | 4 | 8 | D | 9 | F | C | 2 | 3 | 7 | B | E | A | 5 | 0 | 6 |
| 0 | 7 | E | C | 4 | 1 | 6 | 8 | 5 | F | A | 2 | B | D | 9 | 3 |
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| C | 0 | B | 7 | 2 | 4 | 9 | D | 8 | 3 | F | 5 | 6 | 1 | A | E |
| 6 | D | 9 | 8 | 5 | 0 | F | 7 | C | 1 | E | A | 3 | 2 | 4 | B |
| F | 5 | 0 | 3 | D | 7 | A | E | B | 8 | 9 | 6 | C | 4 | 1 | 2 |
| 4 | 9 | D | 2 | B | C | 3 | 6 | 1 | 5 | 7 | F | 0 | 8 | E | A |
| E | 1 | C | B | 0 | 8 | 4 | F | A | 2 | D | 3 | 9 | 7 | 6 | 5 |
| 8 | 6 | 7 | A | 1 | 5 | 2 | 9 | E | 4 | 0 | C | D | 3 | B | F |

## CODE WORD

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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

## CROSSWORD

DIRTBIKE
REGNUMONLINE
DRAGONFABLE
TIBIA / INSTEAD
RICKROCKET
MARATHON
QUAKE
OPENARENA

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