



Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

ISSUE #43 - November 2010



VIRTUALIZATION PT6 :
DEBIAN AS XEN SERVER



Photo by damiandude (Flickr)

TOP 5 - Backup Ideas You Know You Should... But Do You?

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Images In Raw Therapiee p.14



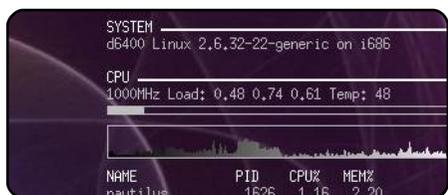
Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY



Team Interviews p.27

Each month, we'll be publishing interviews with LoCo (Local Community) or Translation Team members.



Review - Conky p.24



Linux Lab p.17

An old AMD PC with 256MB RAM and no hard drive. Is it still usable?



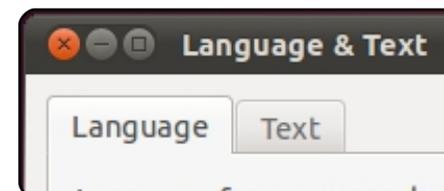
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Welcome to another issue of Full Circle!

Another action packed issue for you this month, folks.

We have the conclusion of the readers survey 2010 article which began last month. This month I'm replying to your ideas or comments. In some cases, several people suggested the same - or similar - ideas, so I've chosen the best worded version as the question. So don't take offence if you suggested an idea and I didn't use your text.

If you're wondering how FCM is translated, or how to begin translating FCM, then you should have a read through the interview on [page 28](#). The Russian FCM team have interviewed the Hungarian team on how they do their translations. Interesting stuff!

If you're a Chinese/Japanese reader, or user, and you're wondering how best to enable Japanese/Chinese input in Linux, then you should check out Lucas's all new and improved Command & Conquer column on [page 6](#). He never did come up with a cool new name for it.

If photography is your thing, then you'll want to read the article on editing RAW images using an application (which I'd never heard of before) called *Raw Therapee*. Phil Buckler tells all.

And last, but not least, is Andrew's Top5 backup ideas. Like I say on the cover, you know you *should* backup your data, but *do* you? Well, the Top5 gives you several online, and offline, ideas.

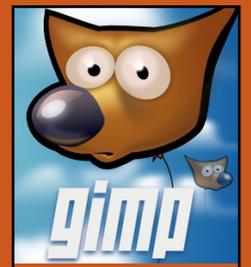
Oh, and if you have any articles for FCM please email them to articles@fullcirclemagazine.org as our backlog of articles has dwindled greatly!

All the best, and keep in touch!

Ronnie

ronnie@fullcirclemagazine.org

This magazine was created using :



Full Circle Podcast

Released every two weeks, 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>





Linux Mint 10 "Julia" Released



New features at a glance:

Welcome screen

- Install codecs and upgrade to the DVD edition from the welcome screen

Menu

- Highlights newly installed applications
- Finds and installs software from the repositories
- Search engines
- GTK bookmarks support
- GTK themes support

Software manager

- Application icons
- Better categorization

Update manager

- Ignore updates
- Download size

Upload manager

- UI, speed, ETA
- Connection test
- Cancel / Run in background

New look and feel

System improvements

For a complete overview and to see screenshots of the new features, visit: "What's new in Linux Mint 10".

System requirements:

- x86 processor (Linux Mint 64-bit requires a 64-bit processor. Linux Mint 32-bit works on both 32-bit and 64-bit processors).
- 512 MB of system memory (RAM)
- 4 GB of disk space for installation
- Graphics card capable of 800×600 resolution
- CD-ROM drive or USB port

Source: LinuxMint.com

Tiny Core Linux 3.3 released

Tiny Core Linux 3.3 (tinycorelinux.com) running the Chromium web browser. Tiny Core lead developer Robert Shingledecker has announced the release of version 3.3 of Tiny Core Linux. Based on the 2.6.33.3 Linux kernel, Tiny Core Linux 3.3 features updates to the Fast Light Toolkit (FLTK), such as a new integrated file manager and a minimal editor under System tools.

Source: h-online.com

Now Your Fridge Can Run Linux



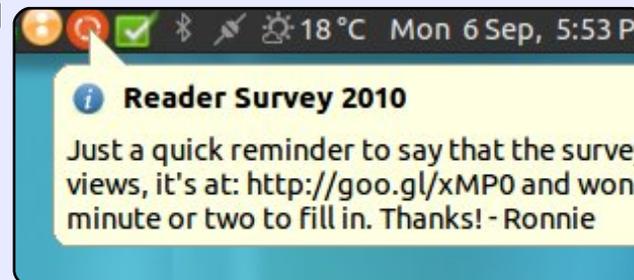
The range of devices running Linux grows every day. Now you can add one more to the list: Electrolux (Frigidaire) in Brazil has just announced the Infinity i-kitchen, a smart appliance running Linux on an embedded 400MHz Freescale i.MX25 processor. With 128MB RAM and a 480×800 touch panel, the i-kitchen provides the user with unparalleled control over his refrigerator operations.

In addition to providing basic information such as current time and temperature, several additional apps are built-in: notes, calendar, contacts, photos, tips and recipes.

Source: cultofmac.com

Full Circle Notifier - Beta Release!

Our very own Robert Clipsham (mrmonday) has released the first beta of the **Full Circle Notifier**, a small application that sits in your system tray and will not only announce issue/podcast releases, but can be set to automatically download them for you too! Several people are creating various distro packages of FCN. For more info, see the FCN Google Group: <http://goo.gl/4Ob4>





COMMAND & CONQUER

Written by Lucas Westermann

Before I start this month's article, I feel I should apologize for my usage of "cat," as a reader felt it deserved an award for the "worst usage of cat" (or words to that effect). I know that "tail" accepts files as well, and, as such, cat was superfluous, but I wanted to give an example of what cat does – not how best one should use it! If I hadn't done it as I had, I'd have needed another example command, which I thought was unnecessary. I apologize if I confused (or offended) anyone in doing so.

A year ago, I started to learn Japanese (mainly for a challenge), and the first real hurdle I faced was figuring out how to use an input-method system to allow for Japanese typing. Since I'd never heard of iBus, I decided on SCIM (Smart Common Input Method). These days, Ubuntu ships with iBus, which is similar to SCIM, though easier to configure.

I imagine that many readers of Full Circle need to use Japanese or

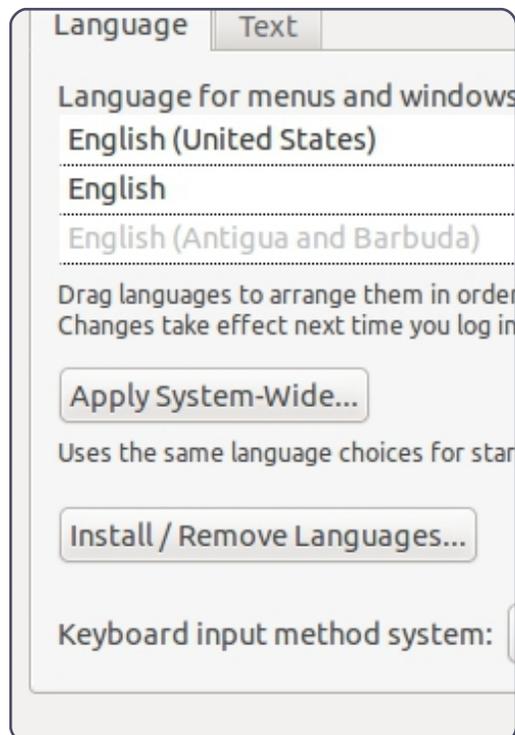
Chinese input. Here is how you go about enabling the extended input.

Step 1

Open your Language Support window (found under System > Administration > Language Support in Ubuntu 10.10).

Step 2

Choose the "Install/Remove Languages" button in the main window (below)



Step 3

Scroll through the list, and check the box at the end of the line of the language you'd like (in my case, it was Japanese – see Fig. 2). After selecting the language, and closing the window, the language packs required by the chosen language (fonts, dictionaries, locales, etc.) will be installed.



Step 4

Once you're back in the main Language Support window, you'll need to choose "iBus" from the drop-down menu next to "Keyboard input method system".

Step 5

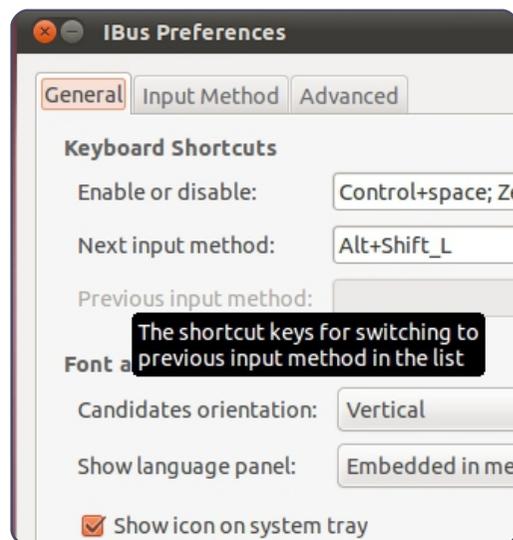
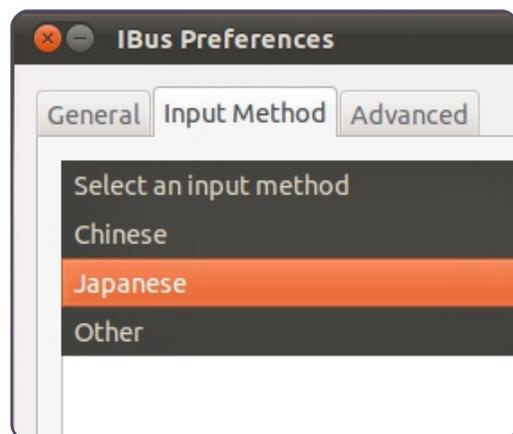
Log out and back in, in order to enable the extra systems and daemons required by iBus (you could do it by hand, but it could cause issues).

Step 6

Open your iBus preferences by going to System > Preferences > Keyboard Input Methods. Once it's opened, go to "Input Method" (see Figs. 3 and 4, below and next page), and choose your language from the drop-down box (Japanese > Anthy, or a method chosen from the Chinese menu). I can't recommend a method from the Chinese section, since I don't use Chinese input, but it's easily enough changed if you decide the method you're using isn't suitable. Once you select one, you must hit "add" to actually accept that Input

COMMAND & CONQUER

Method. The one at the top of the list is your “default” language (the one that is turned on/off when you enable or disable iBus).



Step 7

To use iBus, you'll need to simply hit Ctrl + Space to turn it on. Then, if you're typing Japanese, for example, you will type in rōmaji (ローマ字 i.e. latin alphabet), but the symbols will

appear as you type the phonetic pronunciation. To generate the Kanji (漢字) for a word, simply hit space after you type it (so that にっぽんご becomes 日本語). If there are multiple options, just hit space again and it will show you a list of possible Kanji.

That should be everything you need to start typing away in Japanese. I hope some of you find it useful, and, as usual, if you have any questions, suggestions, or requests, send me an email at lswest34@gmail.com. Be sure to include “Command & Conquer” or “C&C” in the subject line, so I don't overlook it.



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.

Full Circle Podcast

In this episode, UDS, Unity and no big guns...

In episode #13:

- * **Review:** Issue #42 of Full Circle Magazine
- * **News:** Ubuntu Developers Summit (UDS), Unity interface
- * **Opinion:** Introducing "Ubuntu the Movie," (it's not an ad, apparently...)
- * **Gaming:** The game sweeping the world: Minecraft and Ed previews new indie puzzle game 'And Yet It Moves'

File Sizes:

OGG 29.3Mb

mp3 23.8Mb

Runtime: 54min 40seconds

Released: 06th Nov. 2010

<http://fullcirclemagazine.org/>





As I was finishing up the last installment of our series, I got an email about a programming competition. While we don't have time to deal with this one, various sites have programming competitions throughout the year. The competition information can be found at http://www.freiesmagazin.de/third_programming_contest - if you are interested. That made me realize that we haven't talked about true Client/Server programming. So with that in mind, we'll dig into this topic, and see where we can go with it.

So, what is a Client/Server Application? In very simple terms, anytime you use a program (or even a web interface) that accesses data from another application or computer, you are using a client/server system. Let's look at an example that we actually used before. Remember when we made our cookbook program? That was a VERY simple example (and not a very good one) of a client/server application. The

SQLite database is the server, the application we wrote is the client. A better example would be the following. There is a database on a computer in another part of your office, floors away. It holds information on the inventory of the store you work at. You use a point of sale register (one of 10) within the store. Each of those registers are a client and the database located somewhere is the server.

While we won't try to create that kind of system here, we can learn some of the basics.

The first thing we need to think about is the location of our server. Many people have only one computer in their house. Some people might have 7 or 8.

To use a client/server system, we have to connect from the client machine to the server machine. We do this with what is called a pipe or socket. If you ever made a "tin can" telephone when you were a kid, you have an idea of what I'm going to be talking about. If not, let me

paint you a picture of times gone by. First, you had to get your mother to save you two tin cans from beans or something. Then you cleaned them carefully, and took them out to the garage. You used a small nail and a hammer to poke a small hole in the bottom of each. Then you got about 15 feet of string (again from your loving mother), ran the end of the string through each can, and tied a large knot in each end of the string to hold it inside the can. You then got your best buddy, and stretched the string tightly and yelled into the can while your friend held his can up to his ear. The vibrations from the bottom of the can went through the taut string, and caused the other can bottom to vibrate. Of course, you could hear without the can, but that was beside the point. It was cool. The socket is about the same thing. The client has a direct connection (think of the string) to the server. If many clients are connecting to the server, each client would have a tin can of their own, and the poor server has to have the same number of tin cans all held tightly

to each client's string phone. The bottom line here is each client has its own direct line to the server.

Let's make a simple server and client. We'll start with the server first. In pseudo code, here's what happens.

Create a socket
Get name of server machine
Select a port
Bind socket to address and port
Listen for a connection
If connected...
Accept the connection
Print we got a connection
Close the connection

The actual code to our server is shown on the next page, bottom left.

So, we create the socket, get the hostname of the machine we are running the server on, bind the socket to the port, and start to listen. When we get a connection request, we accept it, we print the fact we are connected, send "Hello and Goodbye", and close the socket.

PROGRAM IN PYTHON - PART 17

Now we need to have a client to make the whole thing work (shown bottom right).

The code is almost like the server, but, in this case, we connect, print what we receive, and close the socket.

The output from the programs are very predictable. On the server side of things we get...

```
My hostname is earth
```

```
I'm now connected to ('127.0.1.1', 45879)
```

and on the client side we get...

```
Hello and Goodbye
```

So, it's pretty simple. Now let's do something a bit more realistic.

```
#!/usr/bin/env python
#server1.py
import socket
soc = socket.socket()
hostname = socket.gethostname()
print "My hostname is ", hostname
port = 21000
soc.bind((hostname,port))
soc.listen(5)
while True:
    con,address = soc.accept()
    print "I'm now connected to ",address
    con.send("Hello and Goodbye")
    con.close()
```

We'll create a server that actually will do something. The code for server version 2 can be found at: <http://fullcirclemagazine.pastebin.com/Az8vNUv7>

Let's break it down. After our imports, we set up some variables. BUFSIZ holds the size of the buffer that we will use to hold the information that we receive from the client. We also set up the port we will listen on, and a list holding the host and port number.

We next create a class called ServCmd. In the `__init__` routine, we create a socket, and bind the interface to that socket. In the `run` routine, we start listening, and wait for a command from the client.

When we do get a command from the client, we use the `os.popen()` routine. This basically creates a command shell and runs the command.

Next the client (above right), which is a good deal easier.

```
#!/usr/bin/env python
# client2.py
```

```
from socket import *
from time import time
from time import sleep
import sys
BUFSIZE = 4096

class CmdLine:
    def __init__(self,host):
        self.HOST = host
        self.PORT = 29876
        self.ADDR = (self.HOST,self.PORT)
        self.sock = None

    def makeConnection(self):
        self.sock = socket( AF_INET,SOCK_STREAM)
        self.sock.connect(self.ADDR)

    def sendCmd(self, cmd):
        self.sock.send(cmd)

    def getResult(self):
        data = self.sock.recv(BUFSIZE)
        print data
```

```
if __name__ == '__main__':
    conn = CmdLine('localhost')
    conn.makeConnection()
    conn.sendCmd('ls -al')
    conn.getResult()
    conn.sendCmd('BYE')
```

```
#!/usr/bin/python
# client1.py
#=====
import socket

soc = socket.socket()
hostname = socket.gethostname()
port = 21000

soc.connect((hostname, port))
print soc.recv(1024)
soc.close
```

We'll skip everything here except the send command, since you now have enough information to figure it out on your own. The `conn.sendCmd()` line (line 31) sends a simple `ls -al` request. Here's what my responses look like. Yours will be somewhat different.

Server:

```
python server2.py
...listening
...connected: ('127.0.0.1',
42198)
Command received - ls -al
Command received - BYE
...listening
```

Client:

```
python client2a.py
total 72
drwxr-xr-x 2 greg greg 4096
2010-11-08 05:49 .
drwxr-xr-x 5 greg greg 4096
2010-11-04 06:29 ..
-rw-r--r-- 1 greg greg 751
2010-11-08 05:31 client2a.py
-rw-r--r-- 1 greg greg 760
2010-11-08 05:28 client2a.py~
-rw-r--r-- 1 greg greg 737
2010-11-08 05:25 client2.py
-rw-r--r-- 1 greg greg 733
2010-11-08 04:37 client2.py~
-rw-r--r-- 1 greg greg 1595
2010-11-08 05:30 client2.pyc
-rw-r--r-- 1 greg greg 449
```

```
2010-11-07 07:38 ping2.py
-rw-r--r-- 1 greg greg 466
2010-11-07 10:01
python_client1.py
-rw-r--r-- 1 greg greg 466
2010-11-07 10:01
python_client1.py~
-rw-r--r-- 1 greg greg 691
2010-11-07 09:51
python_server1.py
-rw-r--r-- 1 greg greg 666
2010-11-06 06:57
python_server1.py~
-rw-r--r-- 1 greg greg 445
2010-11-04 06:29 re-test1.py
-rw-r--r-- 1 greg greg 1318
2010-11-08 05:49 server2a.py
-rw-r--r-- 1 greg greg 1302
2010-11-08 05:30 server2a.py~
-rw-r--r-- 1 greg greg 1268
2010-11-06 08:02 server2.py
-rw-r--r-- 1 greg greg 1445
2010-11-06 07:50 server2.py~
-rw-r--r-- 1 greg greg 2279
2010-11-08 05:30 server2.pyc
```

We can also connect from another machine without changes anywhere - with the single exception of the `conn = CmdLine('localhost')` (line 29) in the client program. In this case, change the 'localhost' portion to the IP address of the machine that the server is running on. For my home setup, I use the following line:

```
conn =
CmdLine('192.168.2.12')
```

So, now we are able to send information back and forth from one machine (or terminal) to another.

Next time, we'll make our client/server applications much more robust.

Ideas & Writers Wanted



We've created Full Circle project and team pages on LaunchPad. The idea being that non-writers can go to the project page, click 'Answers' at the top of the page, and leave your article ideas, but **please be specific with your idea!** Don't just put 'server article', please specify what the server should do!

Readers who fancy writing an article, but aren't sure what to write about, can register on the Full Circle team page, then assign article ideas to themselves, and get writing! We do ask that **if you can't get the article written within several weeks (a month at most) that you reopen the question** to let someone else grab the idea.

Project page, **for ideas:**

<https://launchpad.net/fullcircle>

Team page **for writers:**

<https://launchpad.net/~fullcircle>



Greg Walters is 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.



COMPETITION

Written by Dominik Wagenführ

Same procedure as every day: It is late in the evening, and you're still sitting at your office desk and listening to some music. Suddenly a siren sounds through all rooms, the doors are closing automatically, and you cannot open them any more. A light green mist appears, and some creepy shapes wander around the hall. Sometimes you really hate Mondays ...

1. The task

The third programming contest http://www.freiesmagazin.de/third_programming_contest of **freiesMagazin** (with the subtitle "Right2Live") is based on a simple hide and seek game. There are two teams: Blue and Red, Good and Evil, Human and Zombies – depending on your preferences. At the start, all participants are in the Blue team and will switch to the Red team during the game. You will start in a room, hall, or any other free field on the map.

The aim of the game is to earn

as many points as you can. On the one hand, you can earn points by staying in the Blue team, because you will get points for each round in this team. On the other hand, you can collect points in the Red team if you catch members of the Blue team so that they will switch to the Red team too.

You will switch the team if your life energy (starting at 100.0) falls down to 0.0 (or below). The reason for the loss is the toxic fields on the map that drain your life energy. Further, you will switch to the Red team if a red player catches you (stands besides you on some field).

Your player can move (horizontally, vertically or diagonally) one field in every round, and look in some direction. The communication is done via a server-client-concept. So you need to interpret the commands given by the server (for setting game data, etc.), and send a response on which way to move and look.

The map on which you will move contains empty fields (of

course), walls, doors and keys. Before walking through doors, you need to collect the matching key somewhere on the field. So, if you do not have the right key, you may not enter a closed room (or, on the other hand, leave it).

2. Engine, AI and GUI

You can download the engine via FTP <ftp://ftp.freiesmagazin.de/2010/freiesMagazin-2010-10-contest.tar.gz> or via HTTP <http://www.freiesmagazin.de/ftp/2010/freiesMagazin-2010-10-contest.tar.gz> for starting the server and testing your own bot. The engine is written in C++ using the Qt4 framework.

There is a simple AI (artificial intelligence) that you can use as a test subject if your bot is smarter than this one. (It hopefully is - because the example AI just moves around randomly.)

Further, you will find a GUI inside the package for visualizing the progress of each player on the

field.

3. Conditions for participation

The realization of the bots can be done in any language that is workable with a current Linux system. It is important that the client must connect to the server via address localhost and port 15000. It is not allowed to connect to any other port (see GUI above), or to manipulate the server or any other client (e. g. by sending too many commands at one time). The source code of your bot must be distributed under a free license, defined by the Open Source Initiative <http://www.opensource.org/licenses/alphabetical>. Otherwise it cannot be published later.

The deadline for all submissions is "19th of December 2010, 11:59 pm". The winners will get some gift coupon for Amazon <http://www.amazon.com/> (or Bookzilla <http://www.bookzilla.de/> if you live in Germany). The first prize is a

coupon amounting to 50 Euro, the second an amount of 30 Euro and the third prize will be a 20 Euro coupon. The other participants will not win anything but the fun of programming their bot – at least we hope that it will be fun.

You'll find a much more detailed description of the contest - including the server commands, the moving and opening of doors, and many more pictures - on the freiesMagazin website http://www.freiesmagazin.de/third_programming_contest.

About freiesMagazin:

freiesMagazin <http://www.freiesmagazin.de/> is a free (as in freedom) German magazine about Linux and Open Source, similar to Full Circle Magazine. The magazine will be published monthly by some volunteers who think that knowledge should be accessible by everyone.

About Dominik Wagenfuehr:

Dominik has been chief editor of freiesMagazin for some years. He tries to spread the word for

Open Source and Free Software. Further, sometimes he is involved in the German Ubuntu community.

MY STORY - UBUNTU NETBOOK REMIX

I am contracted to a small IT company that recently sold a netbook PC to a local school teacher. It was pre-installed with Microsoft Windows XP & worked well until it was plugged into a local area network. Infected with many viruses, it then proceeded to crash repeatedly and was non-usable. We proceeded to remove the many viruses, but had to re-install Windows as many system files were corrupted. The netbook had two anti-virus/anti-malware software applications installed!

Over the next month, the netbook got infected repeatedly and the owner was no longer prepared to pay for virus removal and OS re-installation. I then recommended UNR (Ubuntu Netbook Remix) as a replacement operating system, but the owner was reluctant. He feared that his netbook would be harder to use and not compatible with the files he needed to access. When he realised it was free and unlikely to get infected however, he was willing to give it a try.

On first trying UNR, he was very impressed with its ease of use, stability and the large collection of included software. He then commented on the responsiveness and loved the user interface. The short boot/shut-down times also impressed and he was equally impressed with OpenOffice.org's ability to access his existing documents. Best of all though, was its resistance to virus infections that had plagued him previously.

Unfortunately, many hardware vendors don't sell netbook computers without a Microsoft OS pre-installed, increasing their prices unnecessarily and limiting the choice of models we can recommend to our prospective clients. While other netbook-specific Linux distributions exist, UNR leads the way with it's combination of usability, stability and bling (3D desktop effects, etc.).

Jimmy
Matrix IT Networks
South Africa



About two months ago, I got a question from a reader asking me about Debian as a Xen server running a Red Hat based guest. I hadn't finished the research by last month's due-date, and, with University work, I haven't yet finished the entire set up (I had to figure out a test machine first, and I'm trying to get the network card working on my old temperamental laptop). As such, I'm splitting this article into two parts. Part 1 will cover installing Debian and the Xen server, and next month's Part 2 will cover how to set up guests on the machine.

Step 1

Download an ISO image of Debian from www.debian.org/CD/ (it's up to you what method you use to download the image). I downloaded a testing image of Debian for amd64 architecture, since that's what my laptop requires, but your decision may be different. Once it's downloaded, burn it to a CD, or use unetbootin to stick it on a USB stick. If you decide to burn it to a CD, make

sure you burn at a slower speed to minimize the chances of any errors.

Step 2

Insert the CD or USB stick into your soon-to-be Debian server, and boot to it. It's up to you if you choose the graphical install or the normal install – it's the same process, it just looks slightly different.

Step 3

First, you'll be required to choose your country, language, and keyboard settings. I leave this up to the reader to figure out, as each system will be slightly different.

Step 4

The installer will then try to detect the CD it's running from, and it shouldn't have any issues. However, I think that the graphical installer asks if you'd like to insert another CD to scan - simply choose

“no” and continue on.

Step 5

After installation, you'll need to configure your network. Generally Debian should be able to automatically detect the settings (as long as there are drivers present), so I won't go into detail here. Choosing your hostname is entirely up to you; your domain name is required only if you have one. Choosing a mirror within your country will improve download speeds.

Step 6

You'll may need to configure the clock (mine was auto-configured), but if you have any trouble, localtime is what your PC is set to if you had Windows (or have Windows) on it, otherwise Linux and Unix default to UTC.

Step 7

Next up is partitioning. I generally recommend choosing Guided – Use Entire Disk (as long

as you are planning on having Debian alone on the server). If you do decide to go this route, putting your /home on a separate partition is useful if you plan on using the user account. If you're going to just run as root on a closed system, or plan on storing very little in your home folder, putting it all on one partition is fine too.

Step 8

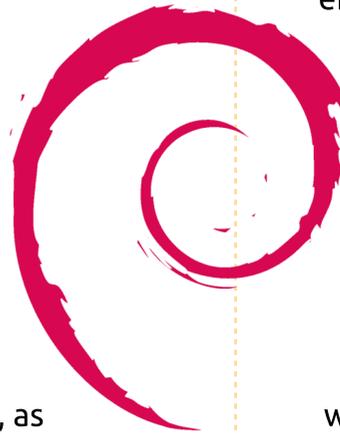
The next step that requires input is setting up your users. I leave that up to you once again.

Step 9

Software. What you really need installed is simply the base system (the default selection). However, if you want a GUI, you can also install the desktop environment option (installs GNOME). For a server you really wouldn't need it, but it's a personal preference. Also, if you plan on running any other server services on the device, choose them here too.

Step 10

Install the GRUB bootloader,



and then reboot.

Step 11

Once you've logged in on your device (I will assume you're running as root here, because sudo wasn't installed by default on my device, and setting it up isn't part of this article), run the following commands:

```
apt-get install xen-utils-
common xen-tools
```

```
apt-get install xen-linux-
system-2.6.26-2-xen-amd64
```

For the second command you may need to change the package a bit if you run 32bit (if so, replace amd64 at the end with 686), or if you have a different version of the kernel.

Step 12

(optional if not running Squeeze)

You'll want to make a backup of the /etc/xen/xend-config.sxp file, and then you'll want to edit it and



uncomment the line "(network-script network-bridge)". To do that, you'll need the following commands:

```
cp /etc/xen/xend-config.sxp
/etc/xen/xend-config.sxp.bak
```

```
vim /etc/xen/xend-config.sxp
```

Step 13

Reboot. You now have a fully functional Xen server.

I hope you found this article useful. Next month, I'll pick up where we left off! If anyone has a specific request for a guest OS, send me an email at lswest34@gmail.com, and I'll be sure to add information for that OS as well. Please put "Virtualization" in the subject line, so that I don't overlook it!



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.

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HOW-TO

Written by Phil Buckler

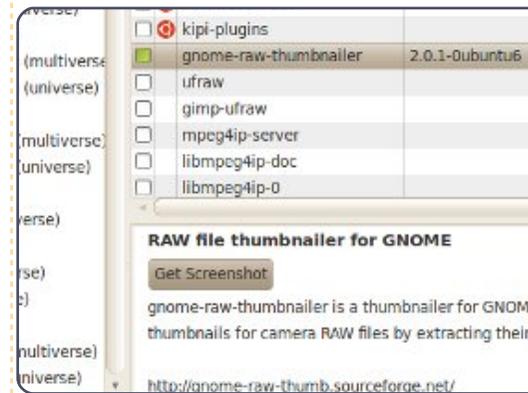
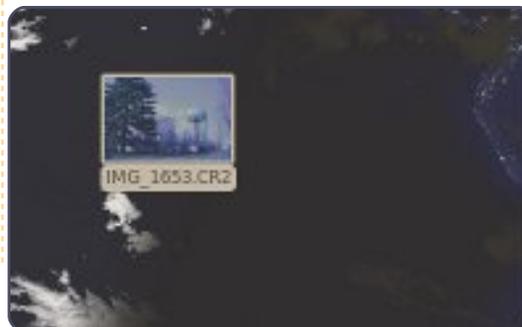
Edit RAW Images With Raw Therapee

This is intended to be a basic introduction to a tool that I recently stumbled upon. First, we will cover the who, when, and why of using this software tool. Next, we will cover some technical points. Finally, we will get a step by step tutorial of how I corrected my image.

Many people out there swear by the Adobe suite of photography tools. Packages such as Lightroom and Photoshop give the artist a powerful set of tools to use, but at a large cost, approximately \$1000 US list. For the novice who does not want to spend hundreds of dollars, but still wants to stay legal, or the enthusiast hooked on open source tools, Raw Therapee (RT) accompanied by GIMP provides a strong set of photo editing tools. Such tools are only getting better with time. RT is now open source and they are working on v3.0, currently in alpha.

So what is a RAW image? In digital photography it is equal to

undeveloped film from the old days. Most DSLR cameras and some “point and shoots” will give you this file to work with as it can be an option on the camera itself. Like it or hate it, I shoot with Canon cameras. That being said, RT, from my understanding, will work with most mainstream raw formats. My camera can give me filename.CR2, filename.JPG or both, which is the route I choose so each image has two options for me. The JPG format is post processed on the camera itself and works for some applications, and the RAW files hold more information. The JPG image has settings applied to it by the camera CPU, like white-balance and saturation. RAW, or CR2, conversely, have no settings applied; the file is the raw data collected by the sensor.

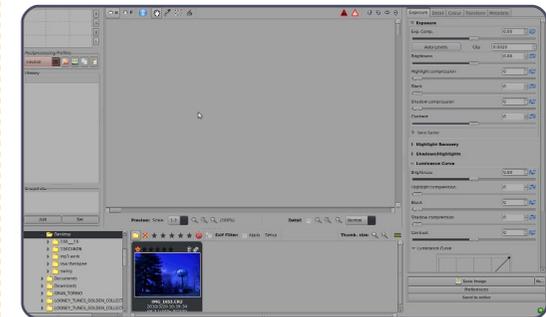


One helpful tool is *gnome-raw-thumbnailer* which lets you view thumbnails of raw images (below left). To enable this, install ***gnome-raw-thumbnailer*** from the repository (above).

Below is a photo I took with a

poor white balance selection. I will fix this image in Raw Therapee. RT can simply be installed from the repository.

Let's open RT. From Applications > Graphics, click on RawTherapee. Once opened, we need to open our raw image.



EDIT RAW IMAGES WITH RAW THERAPEE

Navigate through the folder tree in the lower left corner and double click the folder containing your raw image. Then wait as RT reads in all the data for all image files in this directory. Double click your raw image file to open it in RT.

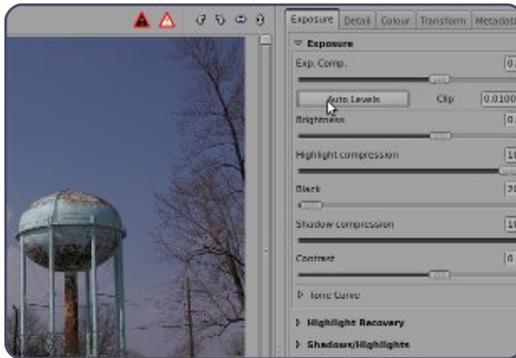
Normally, you should work from left to right starting with the exposure tab, but on this image I started with color because that was the major problem with my image.

The first item I corrected was the image white-balance. This is telling the software what color in the image is true gray or white.

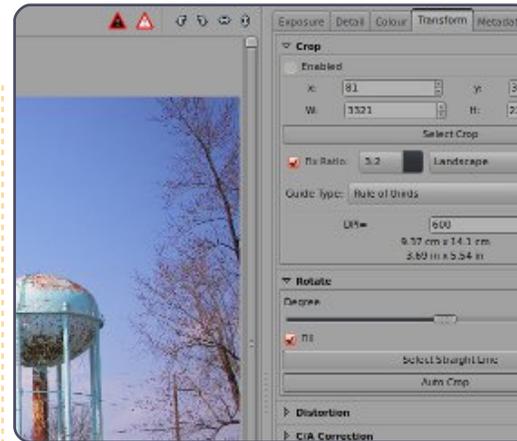


Start this process by using the detail tool to zoom in on the image. This is done by checking the detail box then moving the square in the upper left corner with the little hand. Once you have found your gray spot click on the color tab and then click on the “Spot WB” button, finally click on your white/gray spot.

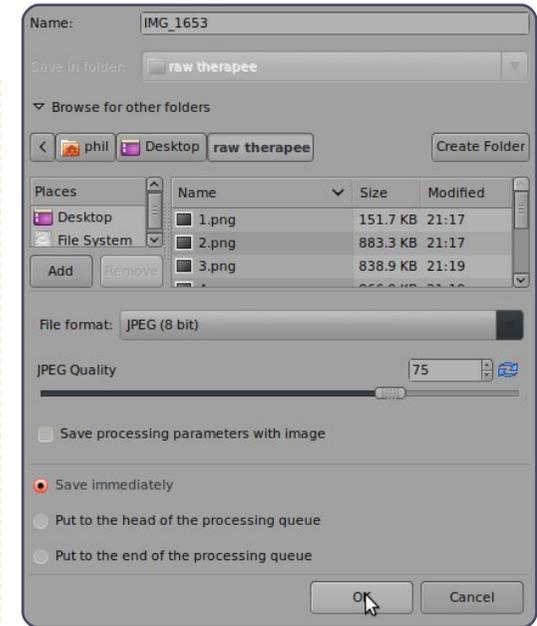
Next, I wanted to auto adjust the brightness, contrast, and other image levels. To do so you go to the exposure tab then click on the “auto levels” button.



Finally, an artistic change I wanted to make was to add a slight vignette or darkening at the edge of the photograph. A vignette can also be caused by the lens. On the Transform tab inside the vignette correction section, I set the amount to -100. This is the most vignette that RT can add but it is enough for this image.



Now that we are done with the editing we need to save the image. I use the “As...” button to bring up the save as dialog (right). Select your location and file type and click OK.





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 OpenOffice, but **PLEASE SPELL AND GRAMMAR CHECK IT!**

Writing

In your article, please indicate where you would like a particular image to be placed. Please do not embed images into your Open Office document.

Images

Images should be JPG with low compression.

Regarding image sizes: if in doubt, send a full size screengrab and we will crop the image.

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 proofreaders 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

You don't need to be an expert to write an article - write about the games, applications and hardware that you use every day.

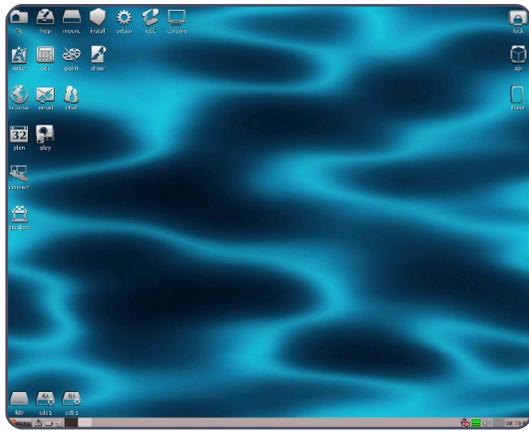


LINUX LAB

Written by Ronnie Tucker

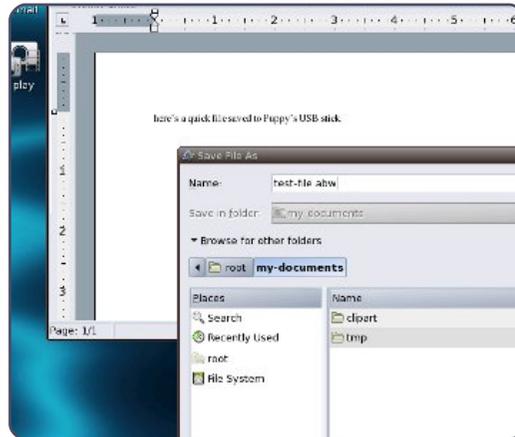
This month I'm trying Puppy Linux 5 (Lucid Puppy), and Slax, on my old test PC minus its hard drive. Is it possible to use a computer without a hard drive and still have the capacity to save to the same USB stick that the OS booted from?

Both Puppy and Slax booted fine with no complaints about having no hard drive. So far so good.



In Puppy, I opened Abiword, created a new file with a line of text, and saved it to the My Documents folder, which is present on Puppy's desktop. This saved fine, but would it still be

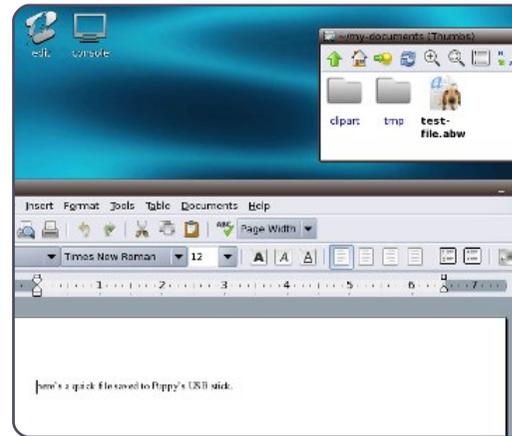
available after a reboot? Remember, there is no hard drive for Puppy to save to.



On asking Puppy to reboot, I was asked a series of questions regarding a lupusave file. The saved file created is initially called lupusave.2fs and is in ext2 format, but you can customise the file name. I called it 'linux-lab'. I was then asked how large the save file should be. For this brief test I chose 64MB, but you can choose anything from 32MB to 1GB or more. Puppy then gave me my 'final sanity check' (as it called it), and I clicked <YES, SAVE>. The save file is created in the /puppy1 folder as lupusave-linux_lab.2fs (since I customised the file name).

It took a while to create the save file, but when it did, it rebooted, and I loaded up Puppy once more.

On checking the My Documents folder, there was my Abiword test-file.abw!



Puppy had successfully saved a file to a 'save file' which is now effectively a hard drive on the same USB as the OS. Impressive! So, technically, you could use Puppy on a computer with no, or a broken, hard drive.

Slax didn't fare so well. Upon seeing a desktop, I loaded up Kword and created a similar test-file, just a simple line of text, and saved the file (test-text.odt) to the

Slax desktop (since it has no My Documents, or similar, folder).



Rebooting didn't go well. In fact, rebooting didn't happen! My USB stick was now unbootable, and the BIOS complained about there being no boot device. I checked the USB stick on my main desktop PC, and, sure enough, it wouldn't boot. So, the lesson is, don't save files to the Slax desktop! Slax definitely failed the basic file-saving test, but (like Puppy), it's still good for diagnosing sick computers.



Readers Survey 2010 Results - The Finale

Written by Ronnie Tucker

This month, in the last of the Reader Survey articles, I'd like to respond to some of the comments made in the survey. Here goes...

"It would be great if we could have both landscape and portrait versions of FCM."

"I never print FCM, so it'd be great if the articles were available as HTML."

Unless someone can come up with a magical solution, landscape and portrait versions would require me to make two editions per issue. Unfortunately, I don't have the time for this! Regarding HTML, the text is available, and I'm always open to volunteers, but please don't volunteer to create an HTML edition of FCM, and then stop after two issues! It's a lot of work to lay out every article of every issue in HTML, and to make it look pretty - especially the back catalogue of 42 issues!

"I'm a scientist working on research, and I don't think that my typical usage scenario [...] is common to Linux users."

Oh you'd be surprised!

"I would like to see a monthly article that talks about open-source being used in the scientific community."

"I would like to see some tutorials on how to use some of the business applications."

See? Told you so! But we need the business folks and scientists to step up to the plate and submit.

"I wish that the My Desktop section was written in such a way that the reader could duplicate the look."

I can only print what's sent, I'm afraid. In some cases the text is highly detailed PC specifications, and too long; sometimes it's a short list of theme/icon names, and not long enough; or in some cases the text is non-existent!

"It would be great if you could get hold of newer laptops to see what does or doesn't work."

I've written to several hardware manufacturers asking if they'd like to submit hardware for review (even if I have to send it back). I explained that we're a non-profit magazine, so I couldn't afford to pay for returns and what-not. No replies. The other way is for readers to review their laptops telling us what worked or didn't work 'out of the box'.

"Announce in the current issue what will be in the next issue."

I honestly I have no idea what will be in the next issue until the current issue is out and on your desktop. The writers' deadline is usually one or two weeks after the release of an issue, so I've no idea what the regular writers will be writing about (usually they don't either).

"Maybe do video podcasts with news, tutorials, and nerdy humor?"

“ What about an FCM [insert language here] version? **”**

Robin has done just that by putting the Full Circle Podcast on YouTube with, in the most recent episode, a video of Linux Mint Debian Edition.

"What about an FCM [insert language here] version?"

I create only the English edition; it's up to you readers to band together to form a translation team. Contact me (the editor), and I'll give you links to the text and Scribus files. From there, it's up to you folks to produce a localised version in PDF format.

"I'd like to see a wrap up of [insert series of articles here] in a special edition."

Yes, I've thought about this many times, but, unfortunately, it's tricky to do. I can export specific pages from PDFs, and reassemble them into a new PDF, but the resulting PDF is huge. Apparently it's something to do with the way the PDF internals. I'll try to write a HowTo on how it's done. That way, you folks could do it yourselves.

"Make FCM longer!"

I don't have a life as it is! Trust me, if I'd known that FCM would take up as much time as it does, I probably wouldn't have started it in the first place!

"Have a more predictable release date!"

The last page of every FCM tells you when the next edition will be released! Suffice to say, it's the last Friday of each month, and has been now for several years!

"Have the PDF go full screen automatically."

That I can do, but I'd rather not, as I don't want new users to have their screen flicker and be taken over by FCM, and not know how to regain control of their PC.

"Have one large, easy to find, download button, and not have to search through several pages to find a download link."

At the top of every page on the website there is a download link. Click that, and choose your issue. Click the cover, or language, to download. Simple as that.

"Could you email me the latest edition?"

I think we'd be closed down if we did that. Tens of thousands of people download FCM each month. If we sent out that many emails, we'd immediately be labeled as spammers, and FCM would land in your spam box. Having said that, we're in discussions...

"Less 'How my pet hamster learnt to use and love Ubuntu'."

See? Ubuntu is just so easy to use! OK, OK. So, if anyone has stories of how their pet gerbil loves Linux Mint, email them to Robert Clipsham.

"Make the magazine bigger and

with more advertisements."

That seems pointless. We don't make any money from advertisements, so having more ads would just make the file size unnecessarily larger.

"Include more quizzes and prizes."

I'll try to, but I have to personally pay for the postage and packing of the prizes. The prizes are usually review copies of books that I've received, so I have to wait until new Linux books are available for review before I can request them. And inevitably they are two inches thick, and are expensive to post outside of the UK. Just my luck! Why does no one release nice, slim, Linux books?

"It would be great to have FCM in an ebook reader format."

That's simple to do using Calibre, which you really should be using for your ebook reader, as it's a great ebook library app. I'll maybe do a HowTo on that too.

"Have links open in a new tab!"

I have absolutely no control over how links open in the PDF from

within Scribus, sorry!

Regarding contributions:

"I would like to use my PayPal account."

Not quite the contribution I was meaning.

"No, I'm not an expert."

Join the club. You don't have to be an expert to write an article for FCM. As long as you're writing about something you do every day, then it's experience that counts.

"No, I don't like working with Scribus."

Neither do I. Just kidding! Articles can be written in plain text or in your favourite office software. All I ask is that you don't embed images within the office files.

"English is not my native language, and I'm not writing articles unless you have someone to check them."

Indeed we do! We have several proof-readers/copy-editors (see the last page of each issue for the credits) who meticulously go

READERS SURVEY RESULTS 2010

through every article to correct mistakes and rewrite into standard English when needed. Without them, FCM articles would contain too many spelling and grammatical errors, and would be harder to comprehend, in general.

"I assume you have loads of people already."

Uh, no. We do have regular writers, but anyone can be a regular writer as long as they have a good idea for a new column. We're always looking for more people who can submit regular and/or one time articles.

"I do contribute to FCM, but my article was only published after several months."

Sorry, sometimes I have a big backlog of articles and that happens. I try to publish the articles on a first in, first out basis. As of this writing (November 2010) the backlog is pretty short, so now is a good time to write that article you've been thinking about.

"You might get more writers if you have an idea box, or something similar."

This is something I've been looking into, and I've recently set up a LaunchPad page where people can submit ideas for articles, and, if they're writers, assign themselves to an idea and get writing. It's at <https://launchpad.net/fullcircle> - click the Answers link at the top of the page.

And the age old chestnut of a question:

"A print version would be nice."

Indeed it would, but it would also be very expensive to print! Readers would either need to pay for each issue (probably in advance) and pay highly, or we'd need to flood the magazine with advertisements to make money, but would you really want to wait several weeks for it to be posted out and arrive?

Again, I'd like to thank all of you who took the time to fill in the survey, it'll help shape Full Circle in 2010 and beyond.

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MY STORY

Written by Danish Lala

The words “this is too slow”, in an angered but controlled voice, got my attention.

“What,” I asked, a bit sure of the answer. But I did not get an answer.

“Ubuntu works faster, and is easier”, he said, a few minutes later.

All I said was, “Yes, Dad, I know”.

On the Fool's Day, my father finally bought his laptop. He wanted one for presentations, surfing the net, viewing pictures, and watching videos. Helping him out on hardware and software issues, I advised him to buy a Lenovo. He now has a Lenovo Ideapad (Y450) which came preloaded with Windows (Genuine). Why Windows? Since he likes easy and hassle-free stuff, and he will be roaming with the machine without having me around, I thought Windows might be much better for him. In case of any issues, even for installing or

fixing something, help might be near. If the laptop has Ubuntu, and something does not open, or an error comes up, it will be a problem for him. Since he may not understand the problem, and help may not be physically present, I went for a Windows machine.

Now, hearing those words was a surprise for me. When I first started using Ubuntu in late 2007, I wanted it to be on my home PC, which was used by all the members of my family. I realised Ubuntu is a good system, but waited to install the LTS which was to be released in 2008. When I put my suggestion of using Ubuntu on the home PC to my family members, I was faced with family opposition, since nobody had prior experience with Linux. Everyone was unsure of how they would get their work done. In fact, they were unwilling to change. That time, my father was also very sceptical, but then, after some cajoling and an informal presentation of Ubuntu's features, everyone relented. For some time, due to hardware and codecs issues, everyone was ready to kill

me. My father then had instructed me to bring Windows back, but I persisted. Soon there were no hardware and codecs issues - thanks to the Ubuntu Community.

My father likes technology and computers, but not the details. But his telling me Windows is slow (referring to the boot time as well as the post-login time), was a fact least expected from him. That day, one thing was clear: that Ubuntu is not only for geeks but even for a good father

who likes technology. So this one is for Ubuntu and the Ubuntu Community. Hip Hip Hurray!



ubuntu



MY STORY

Written by Frederic Urbain

We gave a brand new computer to our twelve-year-old son for Christmas. A beautiful gift, indeed. After a little jig around the Christmas tree, he decided to keep and try Windows 7. Letting people choose their software, I did not want to exercise influence over him.

One month later (ONE month!), he came to me and asked me to help him install Ubuntu. When online with friends, he experienced some crashes, and was upset. Leaving the room to get a Karmic installation CD, I took 10 seconds to dance a little jig for myself.

After an easy installation, I began to show him Compiz and Cairo-Dock. As I am myself using an old computer - which hardly supports 3D effects - my son never had the opportunity to see the rotating cube. He immediately imagined himself making a demo for his astonished friends.

I met Fabrice, the head-developer of Cairo-Dock, during the last Parisian install-party. He is a pale, reserved, young guy who was not prepared to face such success. Maybe he does not realize what he brought to the community. I want to thank him here.

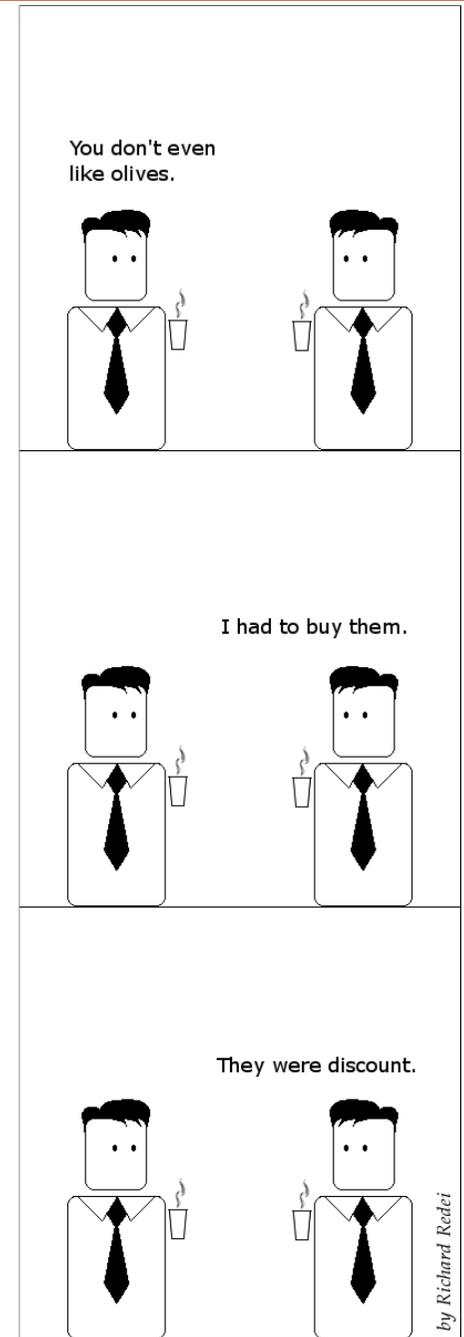
Ubuntu gave itself the mission to convert end-users to GNU-Linux. We won't be able to complete this goal by repeating that the command line is often faster and easier than the graphical interface, although it is true. We won't, as well, attract anyone by endlessly telling them about the issues we met during our first installation. If we want end-users to come to us by millions, Ubuntu has to stay

powerful, stable, fast, easy to use. But those are normal goals for an operating system. Most of all, it has to be "sexy"!

People don't really care if Ubuntu is faster or safer than another operating system. People just want their system to be beautiful. They want to proudly show their desktop to their friends, like a twelve-year-old boy. Don't we do that in the "My Desktop" pages? I bet it is one of the first-read sections of this magazine.

Ubuntu should be a Christmas present.

Think about that when coding, translating, or explaining, Ubuntu.



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Another re-discovery: I had forgotten (until I booted the PartEd Magic CD) an excellent little desktop utility for displaying system information, monitors, sensors - actually displaying anything on your desktop, not just system information.

It is by far the best system monitor I've found, not just lightweight and fully customizable, but with a whole community of loyal users contributing config files, code and hacks.

A round of applause for **Conky**...

The key is the config file `~/.conkyrc`. The header contains color and layout settings, the body contains the monitoring information to display on your desktop, anything from the weather to news feeds to stock tickers, with or without icons, borders, font effects or backgrounds. You get full control of the appearance and window settings: windowless, transparent, moveable, the works.

My 'Conky' is still very basic: machine ID, CPU type and temperature, RAM usage, top five processes running, disk usage, network address and throughput. This is just the start.

If you go to the Ubuntu Forums, there's a thread of over 1200 pages where the Conky hackers have posted `.conkyrc` files with screenshots (you may need to be logged in to see all the screenshots). Take a look at some of the all-singing, dancing, graphical desktop whizz-bangs of which Conky is capable. Just bear in mind, the more you tinker and load into Conky, the more resources you may eat up!

*** The Conky settings page on sourceforge**

<http://conky.sourceforge.net/>

*** Documentation page**

<http://conky.sourceforge.net/documentation.html>

*** Screenshot page** - gives you a sample set of config files for a

range of basic and advanced settings to get you started. <http://conky.sourceforge.net/screenshots.html>





Untangle is a router. Routers route traffic from the Internet to your PC, so that it doesn't have to be subjected to all the insecurities of the Internet. Untangle goes further, however, than most routers: it not only protects you using the standard firewall/NAT combo, but it also has many apps. From its virus blocker to intrusion prevention, Untangle protects you from the insecurities of the Internet.

To set up Untangle for your network, you can use a standard PC with two NICs. Untangle runs on commodity hardware that you can find just about anywhere. Untangle is currently based on Debian Stable; any hardware that works with Debian should work with Untangle as well.

We all know about the basic feature set for a router - things like the ability to block spam, viruses, spy-ware, and ads, among other things. Today, though, I am going to go through some of the lesser known, or at least less

advertised, features of Untangle.

Excellent Documentation

Untangle has some of the best documentation I have ever seen. Their wiki is a gold-mine of information. Each of Untangle's add-ins, and even each of their networking features, has its own dedicated wiki page. For example, I wanted to know what a "threshold" was in terms of a spam filter. Guess who has a paragraph explaining every facet of thresholds? Untangle's wiki.

The documentation alone is not the most interesting part; the most interesting part is the way you get to the wiki pages. All throughout Untangle's web GUI, every page, and module, there are help buttons. These buttons each lead to a section of the wiki detailing the options on that page. For a large complex product like Untangle, you can never have too-much documentation, but their wiki gets close.

OpenVPN

While Untangle's OpenVPN module is no stranger to publication, not so are the feats you can pull off with a VPN (virtual private network) like it. A VPN connects any mobile device directly to an entire network; moreover, entire networks can be connected to each other in a VPN style called site-to-site.

When you connect your laptop, home desktop, or phone, to Untangle's VPN, you gain access to all of your networked devices at the office. Just bought that new laser printer for the office? Why should you have to buy another for home? Just print your documents directly to the office. Do you have an IP camera? Now you can access it remotely and securely. Even remote control of your desktop can be accessed from a VPN, if you combine it with TightVNC for password-protected access to your remotely controlled desktop, without opening it up to the Internet as a whole.

If, in the future, you end up opening a separate store, you can connect both networks to each other via OpenVPN as well.

Port Forwarding

Port forwarding on Untangle is very easy: simply tell it the protocol, port, and internal IP address of the server, and watch it go. It doesn't end here, though, for there is an "Advanced" mode for port forwarding - and this is where it gets interesting.

With the ability to control every facet of forwarding a port, you can forward based on things like Destination Address, Destination Port, Protocol, Source Interface, and Source Address. You can use these options to forward almost any packet, anywhere.

Host-name & Domain Name

Now, when we say "domain name", we're not talking about that dot.com name you bought

from Go Daddy, We are talking about an internal suffix, for each and every machine, that can be used for things like LDAP and AD.

DHCP Server

The DHCP server of Untangle is very interesting to me. Because it is based on DNSMasq, every time a device asks for an IP address from DHCP, it has its host-name mapped to its IP address. This has the effect of permitting you to access network devices by their name instead of by their IP address. I personally use it like this: Every computer is given a host-name in the form of its owner's name, so, for me, it would be ksoviero. This way, when I want to remotely control a desktop, I simply type "ksoviero" as the client's host.

DNS Server

Untangle also has a DNS server for the internal network that you can manually add entries to. You can map any host-name to any IP address you wish with it.

QoS

Quality-of-Service is a way to guarantee bandwidth to any protocol. For example, you can guarantee Skype gets first dibs, or maybe your VoIP provider. That way, if you are doing something network intensive, your phones still work perfectly.

There are also a few other simple features, such as the ability to add CLI arguments to DNSMasq from the GUI (I use this for PXE booting the whole network). All-in-all, Untangle is the best router/gateway hands down. Not just open source, not just Linux based. The best router ever.

To the Untangle team I say please continue producing such a great product.

Quick Opinion

Once upon a time there were floppy discs. At the beginning they were enormous and you needed a suitcase to carry them in. Over time the 3.5" floppy arrived, and they could be carried in a shirt pocket. Then came the CD and DVD. The floppy disc has now been phased out.

Back in the days of floppies, and the then new CD/DVD, we controlled our computer and its software. You installed an operating system with loads of floppies, and then added software by loading even more discs. With the CD/DVD we did the same, but now installed to a hard disc. A 20 MB hard drive changed the computer market overnight. In those days you were in charge of software installation and configuration. Today computers come with a pre-installed operating system and software. You have no control whatsoever.

I recently bought a Netbook which came with Windows XP. I checked that the Netbook functioned correctly with XP, to satisfy myself, and the guarantee, then installed Ubuntu. This voids the guarantee, but the machine is much faster.

This is where I think that the market has changed for the worse and is a rip-off. When you buy a computer with a pre-installed operating system you have little control as to how it is configured. You are also missing out on the pleasure of installing the OS the way you want it. Why do I have to pay for an operating system I do not want?

In Europe this unfairness is now under investigation by the Monopolies Commission. The sooner something is done about it the better.

Allan Hambidge



TRANSLATION INTERVIEW

Supplied by Dubkov ilya (FCM Russian Translation Team)



Gabor Kiralyvari

FCM Hungarian Translation Team

Ubuntu is brought to users in their own language by a large community of volunteer translators, who tirelessly work on localizing every part of the operating system on every release. In this series of interviews we'll get to know who they are, about their language, and how they work.

How long have you been translating Full Circle Magazine?

I sent an e-mail to Ronnie on 13 June, 2007 (22:19 at night) saying that the Hungarian team was founded. I sent a reminder to Ronnie on 16 June (14:16 in the afternoon), as I had not yet received a reply to my first e-mail. So let's say we've been translating the magazine for 3 years now.

How many issues have you translated?

Issue 38 has just been published in English, issue 38 is on the way, issue 39 is under construction, issue 40 is under translation at the moment. All the other issues are translated to Hungarian. Please

check the following link for our progress:

<https://wiki.ubuntu.com/UbuntuMagazine/TranslateFullCircle>

Please describe your translating process: what tools do you use, how do your team members communicate, how do you translate and edit articles?

Mainly Google Docs and Scribus source are used for sharing the documents. We used to copy the contents of the Scribus source into Google docs, article by article, from the final English release (Scribus source).

Most of the time we communicate through a mailing list; this was created in Google groups. If there are major things to discuss, then we have an IRC channel for this purpose (rarely used). 95% of what needs discussing can be done via the mailing list.

Translations are done in the following way: a table with 2 columns is created in Google docs. The left one contains the English

version of the article, while the right one is used for the Hungarian translation. This is because it is easier for the proofreaders to check spelling and translation when both texts (English and Hungarian) are available in one view. When an article is translated, it goes to the first proofreader, and then to the second one for finalizing the translation. The latter gives the go-ahead for publication. When this is done, I send the article to the Scribus editor who exchanges the English text to Hungarian in the source file. After it is finished, I'm almost the last one who corrects the source and creates the final PDF. Then I send the PDF to the last checkpoint where the focus is on checking the internal and external links. If everything is fine, then the PDF and source are sent to Ronnie's team. Right after this, it is published in our webpage (<http://fullcircle.hu/>), and news is sent to LoCo websites (<http://ubuntu.hu/> and <http://hup.hu/>).

How many people are usually

working on one issue?

Approximately 15-17 from beginning to end, but it depends on how many articles and pages the magazine has.

Do you check on how many users download the magazine?

Yep, Google Analytics has been built into our website for this purpose, and many other statistics can be seen here.

Do you publish articles that have been written by authors from your country only for the magazine in your language?

This idea came up two years ago when the publishing of a famous printed Hungarian Linux newspaper was cancelled. But we realized that our resources were insufficient for this. Some of us have published articles for the English magazine. In this case we didn't have to translate the articles to Hungarian (just this one).

Do you interact with other

TRANSLATION TEAM INTERVIEW

Ubuntu magazines or any organisations, such as LoCo?

No interactions with other magazines, but we have a really good relationship with the Ubuntu LoCo in Hungary. There are plans to tighten the relationship and collaboration. They also support us by announcing on their site (mentioned above, ubuntu.hu) when a Hungarian issue is ready in Hungarian; we also contacted them when we had some resource problems with our advertisements. Some of us were chosen to be Hungarian Ubuntu Community Members for our work on FC magazine. Everyone likes this magazine in the community, even in Hungarian!

Write some interesting facts about your team.

Lowest point in the life of our team: once I was the only member in the team, so I had to rebuild the whole team from scratch through internet resources. Now we are a great team with great members who know their duties!

What we are proud of? We are among the top contributors all over the world with our monthly

published translations of the English FC magazine into Hungarian. Furthermore, there was a request for having the magazine published in a format that the Orca screenreader could handle so that blind/visually impaired people could also have access to the magazine. This has been done, and is liked very much. FC is also published in odt format for Orca screenreader.



Become an Ubuntu Translator

Do you speak languages? Join our translation community, and make Ubuntu accessible to everyone in their own language. You can:

Get in touch with a translation team

(<https://translations.launchpad.net/+groups/ubuntu-translators>) or

create your own

<https://wiki.ubuntu.com/Translations/KnowledgeBase/StartingTeam>

Help translating this language -

<https://translations.launchpad.net/ubuntu>



Ubuntu Seniors?

I am three months short of 70 years of age, male, married, grandfather, and a reasonably tech savvy person.

Although I haven't seen, and perhaps I have not looked hard enough, a column or set of articles for us seniors. I really don't think we lack knowledge, but we need the same information as the IT student, or college trained individual. The style of writing would be to avoid slang and jargon, or to have a glossary and a column for us pensioners.

What do you think? I don't mind helping out, but I am also in business, and the business is priority.

Leslie Satenstein

KDE Fail

In FCM#41 you talked about how KDE 4.0 looks better than Windows, and is giving Gnome a challenge. I used

KDE on my older computer when I was running Fedora Core 2, and wanted it on my new computer. When I installed it from Ubuntu's repository, however, it barely runs at all! Many of the old applications crash, and Knotify itself is one of them, so I can't even report problems I'm having! As a result, I don't think Gnome will have too much trouble keeping up, even without an updated look & feel.

Larry Jordan

Lucas Gets An Award

I think the example for 'cat' on page seven [of FCM#42] is a good candidate for the "Worst Abuse of Cat Award".

Lucas wrote:

```
sudo cat /var/log/errors.log | tail -150 | more
```

There's no need for the pipe from cat because tail is able to read the file on its own:

```
tail [OPTION]... [FILE]
```

So, it's better to use the

following, which is shorter to type and faster to run:

```
sudo tail -150 /var/log/errors.log | more
```

Markus

Lucas says: *I plead guilty, but I put that in there as an example of what cat does, not necessarily the best usage of it.*

More Corrections

I want to correct two of the answers in FCM#42.

First, to reconfigure the display to default, use:

```
xrandr --auto
```

The dpkg-reconfigure line that was supplied hasn't actually done anything to display settings since 2007 or 2008.

Second, there was a question describing music rippers which are not properly setting ID3 tags, and

the answer given was to use Rockbox. Using Rockbox will not fix the MP3s! Install audiotagtool and use that to set ID3 tags in the files. It's possible the player & car want ID3v1 while Rhythmbox is using ID3v2 or vice versa. Check one of the Windows-ripped MP3's to see.

Mackenzie Morgan

Shotwell Update

I have a question regarding the Shotwell article (FCM#42). I'm using Ubuntu Lucid and the Shotwell is version 0.5.0.

There are two things you give instructions to do, which I would like to do, that do not seem to be available in the version I have. One is editing the title of my photos and the other is using a rating system. Can you please tell me what version of Shotwell you are using that gives these capabilities?

Sue Newland

Ronnie: *Sorry, that was my fault, I installed the latest version from*

the Shotwell site:

<http://yorba.org/shotwell/>

Angry Young Man

The angry young person ranting and raving about Mac customisations to someones desktop really grabbed my goat. What does it matter what someone wants their computer to look like? Your desktop is simply a tool. The tool someone else uses for a job shouldn't prompt a person to write an article for a magazine! I notice the writer doesn't include his vision for what the desktop SHOULD look like. And unless it is Mark Shuttleworth, Steve Jobs or Steve Balmer, he probably has no actual sway on what peoples desktop will look like. Keep in mind, I don't care how the writer's desktop (or anyones for that matter) looks or behaves, I just want to defend the desktop customisers right to do whatever they like with their own, open-source software.

</rant>

In regards to the Linux Lab, I have an anecdote to share.

Earlier this year I bought a 2001 G3 iMac 400DV from eBay. At some point someone had missed the instructions on flashing the BIOS before live-booting the OSX CD/DVD and had messed up the video. So, I got the machine back from Melbourne (four hours on a train and bus), did the BIOS flash, swapped the original hard drive out for posterity and did an install of 10.04 LTS Power PC Alternate install. Couple of small dramas with the bootloader, and maybe xorg.conf, and this ancient 400mhz 256MB machine was back in action. Literally better than new.

Now it is sporting a modern, up-to-date, secure OS, Firefox 3.6, and even running a full Gnome desktop. I spent a couple of days installing software, Mplayer had to be compiled for the G3 CPU as the one in the repos was compiled for a G4, but even then, run from the CLI the video was so skippy I scrapped that idea. Flash video using Gnash worked occasionally, and really poorly, but it was sweet to see that it could, and who knows what HTML5 could mean for a machine like this. I used MoC (or mocp) a CLI music player and alsamixer in gnome-terminal to play some tunes through those old

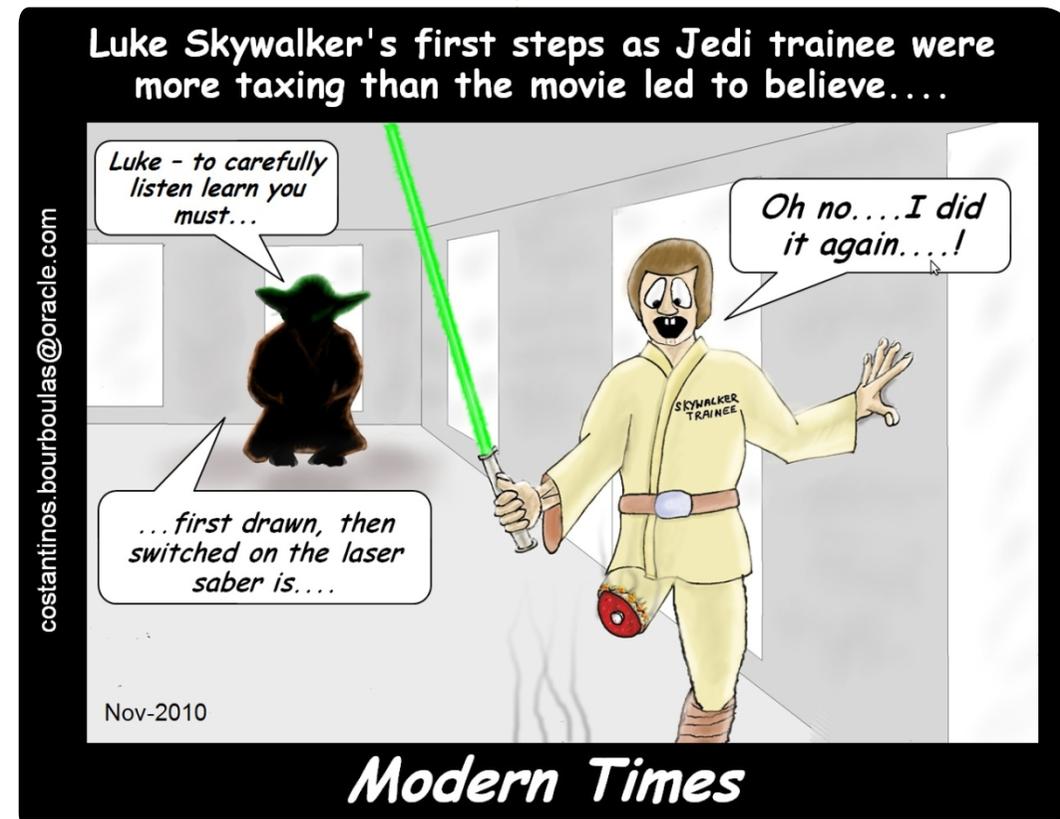
(but awesome) built in speakers.

I really feel as though I cut my teeth on this machine, learned a hell of a lot about putting together a sweet, slim, desktop that for someone not wanting to blow a lot of money has put to damn good use. This story still hasn't got an ending. One day that CRT will burn out and I will gut the iMac and hopefully replace its internals with my Thinkpad (that also has seen better days), but

until then my sister-in-law has a AU\$10 Apple running Firefox, OpenOffice, music-player, a digital photo-frame, etc., etc., and we keep that CRT out of landfill!

Good job on publishing a newsletter that can inspire me to get off my back side and write an email in!

WARvault





UBUNTU WOMEN

Written by Elizabeth Krumbach

In early November 2010 the percentage of Ubuntu Members (<https://wiki.ubuntu.com/Membership>) who are female finally broke 5%; this was big news for the Ubuntu Women project!

Why big news?

In the frequently cited flosspols.org study in 2006 by the University of Cambridge, it was brought to the forefront that *"1.5% of F/LOSS community members were female at that time, compared with 28% in proprietary software."* In June of 2006, The Ubuntu Census Survey (<https://wiki.ubuntu.com/UbuntuCensusSurvey>) came out with a number of 2.4% participation of women within the Ubuntu community.

Since these numbers were released, the Ubuntu Women project has come into its own and worked hard to recruit and support and encourage women who work in the Ubuntu community. In November of 2009,

the Ubuntu Women project began releasing statistics of their own regarding the percentage of female Ubuntu members within the project (based upon self-identification, use of public resources like wiki pages and public blogs, and public knowledge from meeting each other at conferences and events). At that time it was 4.5%, nearly double the figure from three and a half years before.

Now, a year later, we've broken the 5% mark. Of the 625 Ubuntu Members, at least 32 of them are self-identified as female.

To continue working toward this goal, the Ubuntu Women project has several ongoing initiatives, including:

- Matching up women with mentoring programs within the Ubuntu community.
- Targeted encouragement to members of our project to attend conferences, and get more involved with projects and events within the Ubuntu community.

- Social and technical support via our Internet Relay Chat channel, #ubuntu-women.
- Contests and interviews which seek to increase the visibility of women who use and contribute to Ubuntu - to break down stereotypes.

And more! New initiatives are proposed and discussed regularly at our bi-monthly team meetings in [#ubuntu-women-project](#).

But Ubuntu Women certainly can't take all the credit. Over the years, the Ubuntu project itself has been an attractive project to contribute to, in large part because of the revolutionary Code of Conduct (since adopted by other projects in the open source realm) which sets a tone for respectful, professional

conduct project-wide. New contributors are welcomed with open arms to many Ubuntu-related projects, and mentoring and encouragement programs are popular throughout the community.

To learn more about the growth of female involvement within the community, with graphs and charts, check out our wiki page prepared by Alan Bell of the Ubuntu Women project:

<http://wiki.ubuntu-women.org/UbuntuMembers>

For more about the Ubuntu Women project itself, including how you can get involved, you can always visit ubuntu-women.org.





NEWS

Gaming On Linux is a gaming news website, keeping you up-to-date on all the latest Linux gaming news and competitions to win games!

<http://www.gamingonlinux.info>

And Yet It Moves is a lesser known commercial indie which has been available on Linux for a few months now. It's a platformer, but with an unique approach. You still have to move around the 2D world by climbing and jumping obstacles to get to each checkpoint. However, in order to solve challenging puzzles, you have to rotate the game world. Tilting the world turns walls into floors, slides into platforms, and stacks of rocks into dangerous hazards.

There is no story to speak of in the game - just go through each level getting to the checkpoints. There are 17 levels to complete, all with different environments and

challenges to overcome. The turning world design is difficult to grasp at the start, but quite quickly it will become second nature. You will likely get crushed by falling rock, or fall to your death, but the game is very forgiving, and will start you from the last checkpoint. Though each level plays out mostly the same as the last, there is not enough variety with this excellent design. Each level is timed, and your time and ghost are published on the online leader board, adding certain replay ability to the game. Your ghost is a recording of your movement, so other players can download your ghost and race it. Plus, there is a speed run mode for each level. Achievements add even more replay value to the game; with some insane awards to get, can you complete a level without moving?

The graphic style is outstanding. Another unique aspect to the game is paper-styled graphics, which look excellent. Sadly, I cannot comment on the sound, since it didn't work for me. I'm not sure if it's an Ubuntu,

sound card, or game fault (this game was tested on Ubuntu 10.10 and 10.04). The physics in the game are excellent, with a few minor bugs, such as rocks landing on the checkpoint spawn, automatically killing me every time I spawned.

You will need a decent computer to run And Yet It Moves. It's nice to your graphics card, but hard on your processor, mainly because of the physics. It can become choppy in some large areas.

And Yet It Moves is a simple game which makes the most of an excellent design, but with difficult parts near the end of the game. Levels are enjoyable, and offer plenty of replay ability with online leader boards and speed run mode. Graphics are crisp and work well with the game's style. If you're a puzzle and platformer fan, it is a must try. There is a demo available from <http://www.andyetitmoves.net> in deb format, which lets you play a few levels. The full game is \$10,

and is available on Windows, Mac and Linux.

Score: 8/10

Good:

- Unique Graphics
- A new spin on platformers
- Online leader boards and ghost sharing
- Achievements!

Bad:

- Relies on the same approach through out the game
- Sound did not work for me!
- Occasional buggy physics

Full Circle would like to thank Broken Rules for supplying our review copy of *And Yet It Moves*. **Broken Rules are independent game producers who support Linux, please support them.**



Ed Hewitt, aka chewit (when playing games), is a keen PC gamer and sometimes enjoys console gaming. He is also on the development team for the Gfire project (Xfire Plugin for Pidgin)



Q&A

Written 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 How do I make Ubuntu display text files directly, instead of asking me, "view or execute"?

A Go into Nautilus, and click on Edit > Preferences > Behaviour, select "View executable text files when they are opened."

Q I recently finished installing 10.10 64-bit desktop, and I'm trying to get Samba set up. I keep getting this error message from my Windows 7 laptop: "Windows cannot access \\share\share error code 0x800070043".

A (Thanks to *granade* in the Ubuntu Forums) Windows 7 is the issue! Follow these steps:

- Control Panel > Administrative Tools > Local Security Policy >

Local Policies > Security Options

- Network security: LAN Manager authentication level
- Send LM & NTLM responses
- Minimum session security for NTLM SSP (there are 2 of these; disable both)
- Disable "Require 128-bit encryption."

Q After installing Ubuntu 10.10, Google Chrome would install but it would not work. When I ran it from a terminal, it said there was a segmentation fault.

A From terminal, run:

```
sudo apt-get remove libmoon
```

Q I shot some video, in a format called 3GP, on my Android-based MyTouch. (This is also known as the HTC Magic in parts of the world outside the USA.) I

want to convert it to AVI or Xvid format.

A Use Winff, aka "Video Converter", and specify "XViD fullscreen" as the device preset.

Q Does Dell sell computers with Ubuntu pre-loaded in my country?

A Each country manager chooses which computers to sell in his or her country, and that includes the ones which come with Ubuntu. To see how Dell feels about Ubuntu in the USA, go to: <http://www.dell.com/content/topics/segtopic.aspx/ubuntu?c=us&cs=19&l=en&s=dhs&~ck=anavml>

Q Why doesn't the command: `ls | grep *zip` do what I want?

A (Thanks to *DaithiF* in the Ubuntu Forums) If you have zip files called a, b and c, the command turns into:

```
ls | grep a.zip b.zip c.zip
```

If you look at the man pages for `grep`, you will see that this will search inside b.zip and c.zip for the string "a.zip". You should just use "`ls | grep zip`".

Q How can I get Terminal to open with a larger window?

A With Ubuntu 10.10, run terminal, select Edit/Profile Preferences. On the first page, at the bottom, you can specify a custom default terminal size. My preference is 120 by 50.

Tips and Techniques

How Hot is Too Hot?

When it comes to computers, heat kills.

Just over a year ago, I built a "one step back from the bleeding edge" computer. One of my objectives was to have excellent airflow through the system box, leading to low component temperatures. (For computer components, I define "low temperatures" as anything below 50 C.) But how can I tell if I achieved this objective?

The quickest method is by going into the BIOS setup during a re-boot, and going to the section which displays the "system" and CPU temperatures. In this case, "system" means the chipset, the huge chip which defines a motherboard. However, many people are, quite rightly, nervous about going into the BIOS setup, since you can really mess up your computer with accidental keypresses. As well, the BIOS

shows the temperatures only at that moment, and you can't see how they vary under different conditions.

Ideally, we would see the CPU, video card, and hard drive temperatures on the upper panel under Ubuntu. This Tip will show you how to get there.

First, we need to install some software. I prefer Synaptic Package Manager; choose `lm-sensors`, `hddtemp`, `sensors-applet`, and `fancontrol`. (Fancontrol might be included when you select `lm-sensors`.) `lm-sensors` is the key piece, and you finish installing it from the command line. Run `sudo sensors-detect`, and take any defaults it offers except at the very end, where it asks, "Do you want to add these lines automatically to `/etc/modules`?" The default is "no," so we type "yes", and press Enter. There are several ways to finish up, the simplest is to reboot.

After the reboot, we can confirm that `lm-sensors` was installed by running the command "sensors," which should show a variety of temperatures, voltages, and fan speeds. To see things on

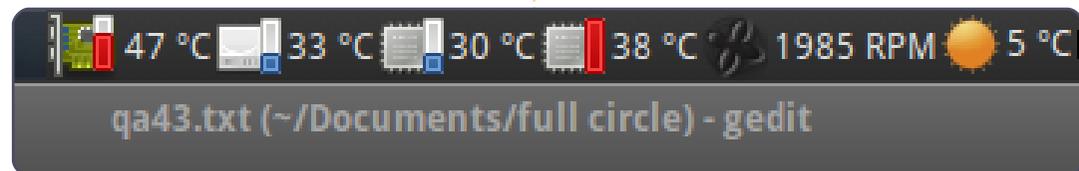
the panel, we right-click on the top panel, select "Add to panel," and then pick "Hardware Sensors Monitor."

Now right-click on the empty applet, and select "Preferences." Under "General," I prefer to see "icon with value," temperatures in Celsius, and a 10-second update interval. Under the Sensors tab, I see three sections on my computer: `nvidia`, `hddtemp` and `libsensors`. You open a section by clicking on the pointer at the left edge of the line. Under `nvidia`, I click on the only entry, "GPU0CoreTemp." Likewise, I enable `/dev/sda` under `hddtemp`. Finally, I open `libsensors` and expand the window so I can see what I'm doing. Then I enable `temp1` (system temperature), the second "temp1" (CPU1 temperature), and `fan1`, the CPU fan. As I enable an item, it appears on the panel, so I don't have to wait until the end to see what it looks like. I highlight "fan1", and click on "down" until it is below

the "tempx" entries.

I should note that for my AMD Phenom II X2 550 processor, `lm-sensors` depended upon the kernel supporting the CPU sensors when I built the computer, and that support did not arrive until Ubuntu 10.10. That applies to the entire AMD "10h" line of CPUs, which is most of what AMD has made over the past year - both desktop and laptop CPUs. I understand there is a stand-alone driver available now from the `lm-sensors` web site, but I have not tried it.

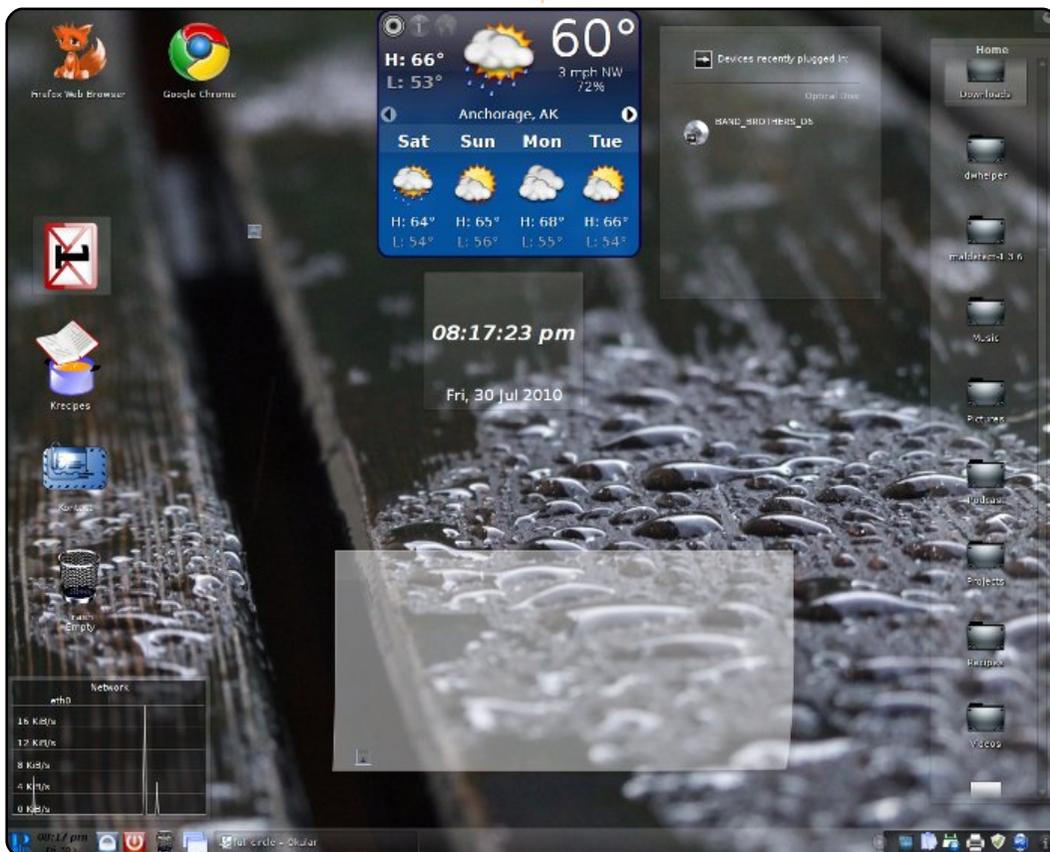
As you can see from the screen capture below, my "new" system has a bunch of nice, low temperature readings. My computer should last forever!





MY DESKTOP

Your chance to show the world your desktop or PC. Email your screenshots and photos to: misc@fullcirclemagazine.org and include a brief paragraph about your desktop, your PC's specs and any other interesting tidbits about your setup.

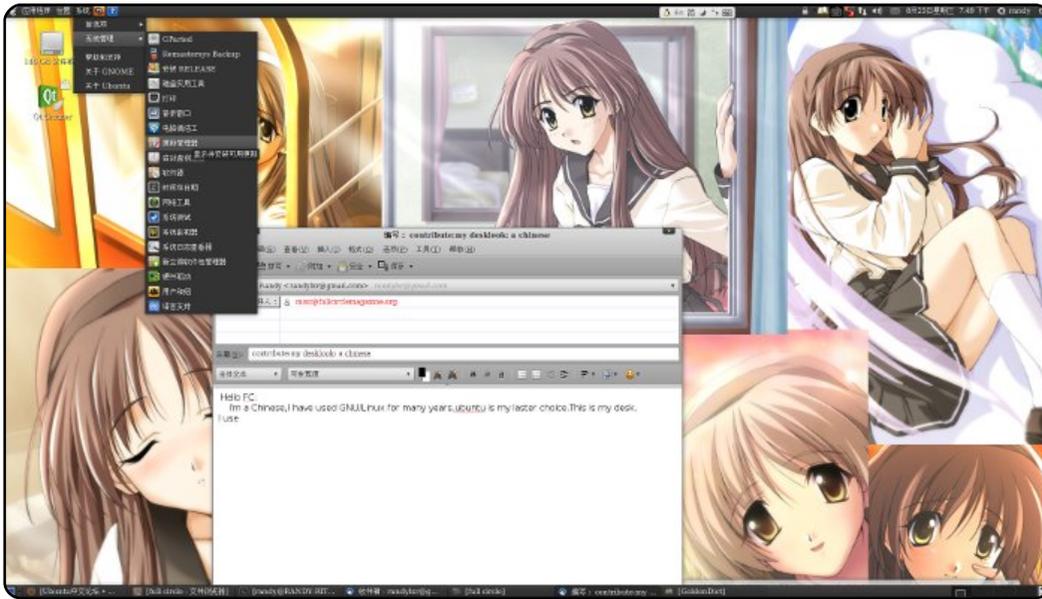


Here is my new desktop! I was running Mint 9, Gnome. I have always liked KDE, but needed KDE Mint 9 to make it work. It "just works" with my Gateway 2X Pentium 4, 3 GHz stock system! Wallpaper is the weather here - it changes with the weather. Others are just standard stuff called UBUNTU!!

Randy A. Stiles

I'm running Ubuntu 10.04 LTS. I have been using Ubuntu since 8.10, and loving it ever since then. My desktop consists of AWN and Conky-Colors. I also removed the Gnome panels for free extra pixels on my netbook. The background I use is a screenshot from one of my favorite anime, called Bakamonogatari. My theme consists of using Shiki-colors and using the Eco theme icons. All of this is running on an Acer Aspire One: Memory - 1GB, HD - 160GB, CPU - Intel Atom.

Pedro Melero



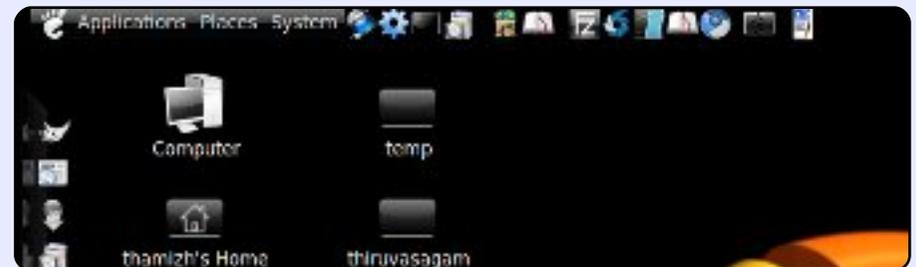
I'm Chinese. I have used GNU/Linux for many years, and Ubuntu is my latest choice. I'm going to high school Grade 2 in 5 days. This is my desktop. I use the Equinox theme, fusion-ico, to control Compiz, and Wenquanyi fonts. The back is from a Japanese game, Memories OFF, the angle HIZUKIA AYAKA (family name, given name).

Randy



I use Ubuntu 10.04, Lucid Lynx, on a Dell Inspiron, with Intel core 2 Duo, 2GB RAM, 250GB HDD; resolution is set to 1366x768 (16:9). I customized a theme by using various ones downloaded from www.gnome-look.org. The left dockbar was aligned by using AWN manager; for the gadgets I'm using Screenlets. The Icon set is blackubuntu, and control is XNtricity. I'm a blogger in my mother tongue, Tamil, writing as UBUNTU NESAN about Ubuntu's special functions, which means "the one who loves Ubuntu."

Thamiziniyan

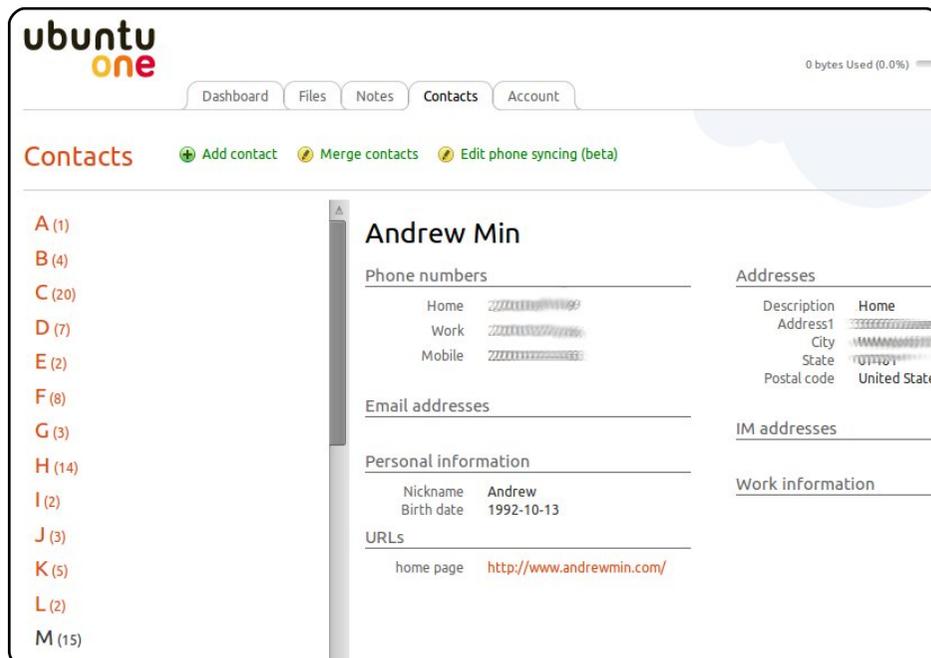


Ubuntu One

Homepage: <https://one.ubuntu.com/>

For a dead-simple backup option, try Ubuntu One. It's built into the more recent versions of Ubuntu, and it supports automatic synchronization of 2GB worth of files to the cloud from your computer. There's also a \$2.99/month plan that gives you a total of 20GB. While it is primarily a program for keeping files synchronized across different machines, Ubuntu One also works great as a backup program: just copy your Documents folder into the Ubuntu One folder periodically and everything will move online.

To install Ubuntu One (if it's not already included), use the ***ubuntuone-client*** package.

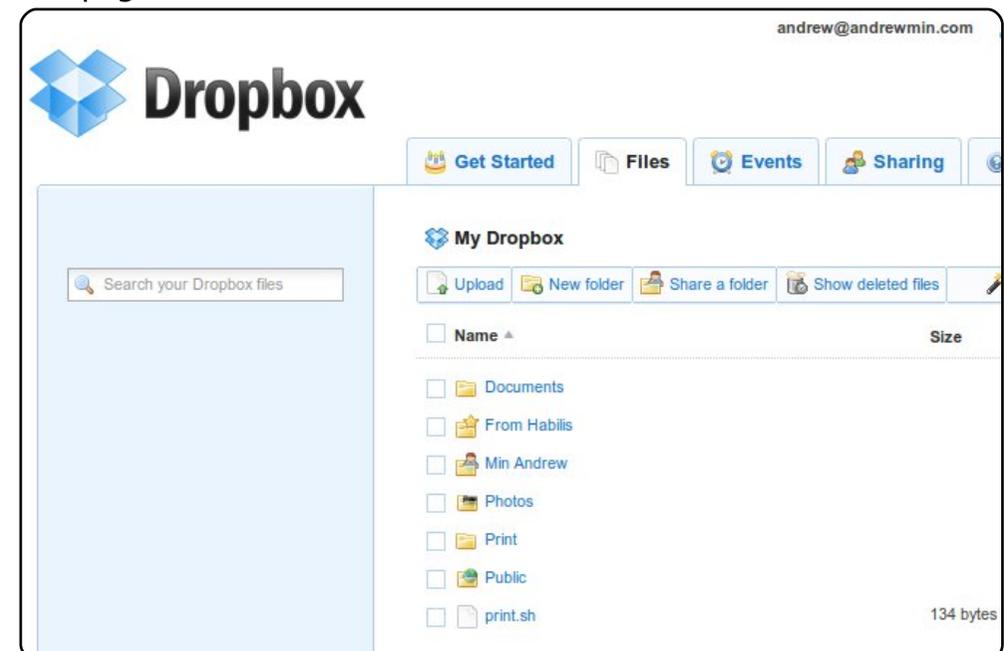


Dropbox

Homepage: <https://www.dropbox.com/>

If you don't like Ubuntu One (or wished it were better), give Dropbox a whirl. Dropbox is very similar to Ubuntu One (it's believed to be the inspiration for Canonical) in that it's built for file synchronization but also works beautifully for file backup. Unlike Ubuntu One, it has quite a few additional features, including symlink support (so you can make your Documents folder backup automatically), and version history (so you can revert back to old versions and even undelete certain files). It also has slightly more flexible pricing plans if you want to go above the free 2GB quota.

To install Dropbox, install the Ubuntu client from the Dropbox homepage.

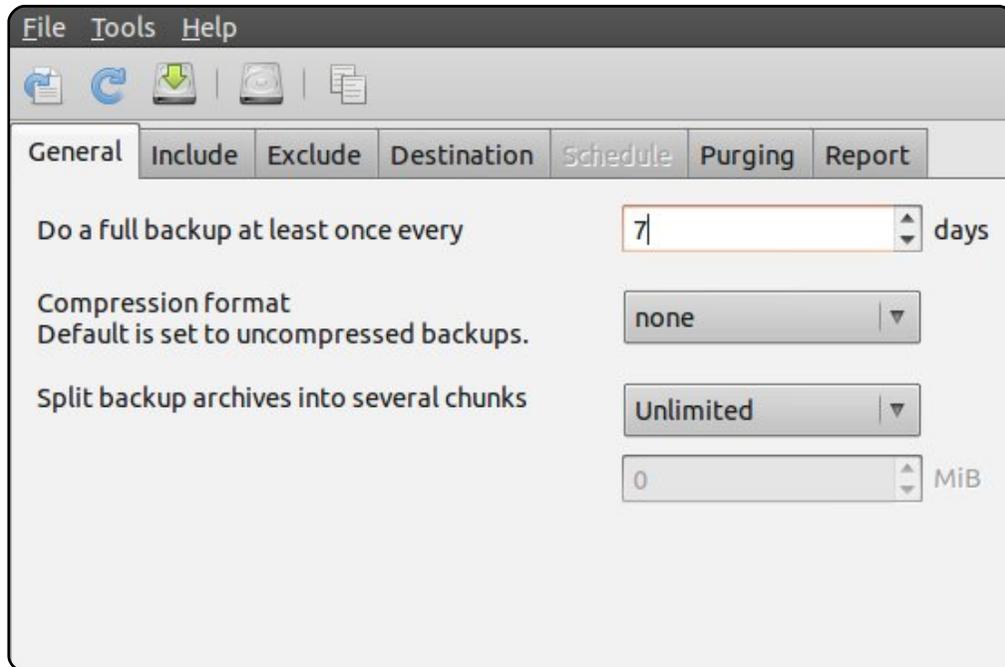


Simple Backup

Homepage: <https://launchpad.net/sbackup>

If you'd rather backup to a private location (such as an external hard drive or web server), Simple Backup is a simple way to back up your documents. It's a Gnome-based backup suite that supports both local and remote destinations. It also includes a built-in scheduler and compressor, and allows the user to exclude and include specific files, as well as purge old backups. All of this is contained in an easy-to-use interface that almost any user could figure out.

To install Simple Backup, use the **sbackup** package in the universe repositories.

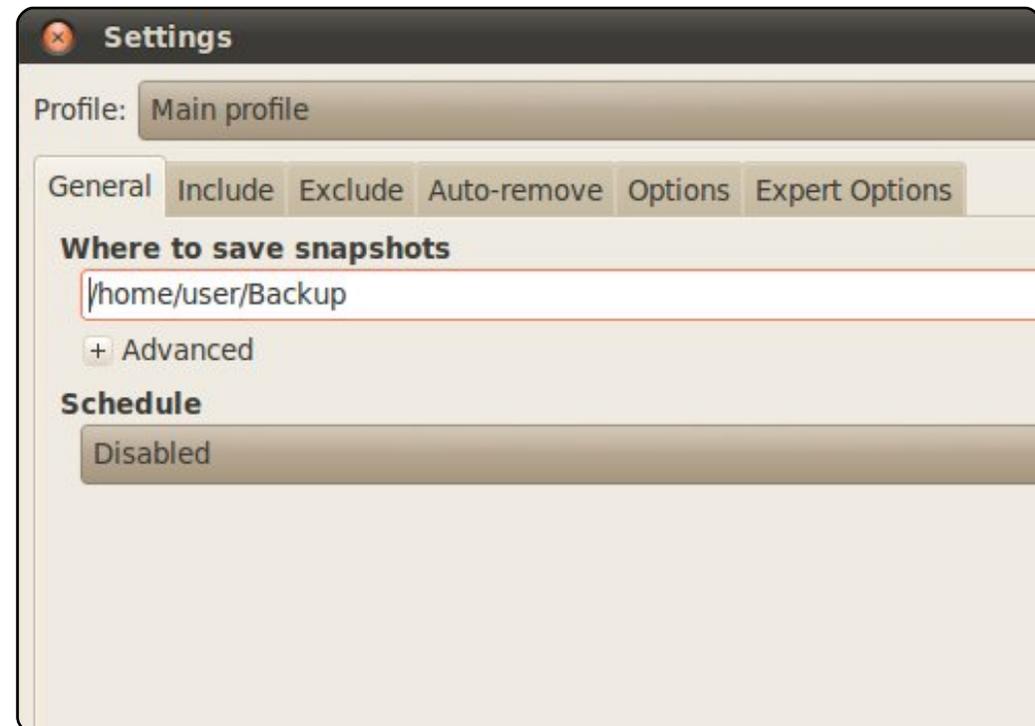


Back in Time

Homepage: <http://backintime.le-web.org/>

If you need more advanced features in your backup utility, give Back in Time a try. It's modeled after the popular Time Machine program for Macs, and, like Time Machine, it supports “snapshots” of your directories. That means you can not only bring back old files, but also old versions of your files. It's smart, too, in that it only backs up the changed files, rather than duplicating everything (so you actually end up saving space). And, unlike competitors TimeVault and FlyBack, it's under active development.

To install Back in Time, follow the instructions at the download page: <http://url.fullcirclemagazine.org/f8ded2>

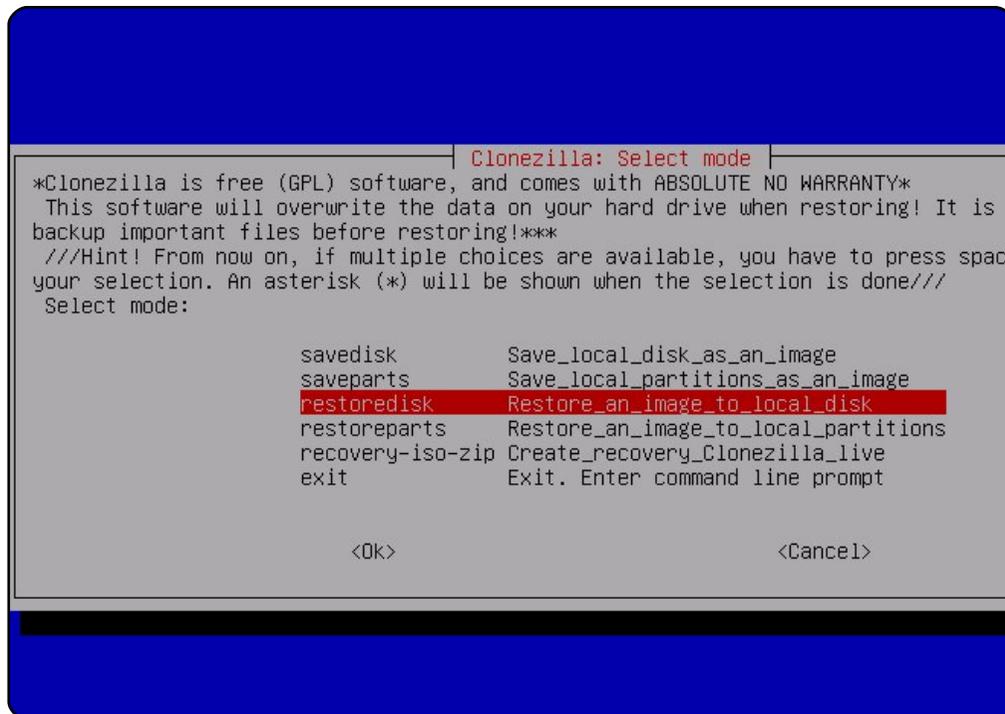


Clonezilla

Homepage: <http://clonezilla.org/>

If you need hard-core, full disk backups, look no farther than Clonezilla. It's a clone (pun intended) of the well-known Norton Ghost. Basically, it backs up your entire hard drive. It supports all the major file systems (ext, reiser, xfs, jfs, FAT, NTFS, HFS, UFS, and even VMWare's VMS), and even backs up your Grub install. If your job is to back up a hard drive, Clonezilla will get the job done.

Since Clonezilla backs up your whole hard drive, you can't just install it in your Ubuntu partition. You'll need to burn a live CD. Follow the instructions on the home page for explanations on how to do just that.



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We aim is to provide current, topical information about, and for, Ubuntu Linux users the world over. We cover all aspects of Ubuntu Linux and Free Software, and appeal to everyone from the newest user to the oldest coder, from the command line to the latest GUI.

Because the show is produced by the Ubuntu UK community, the podcast is covered by the Ubuntu Code of Conduct and is therefore suitable for all ages.

<http://podcast.ubuntu-uk.org/>



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