

Issue #21 - January 2009



full circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU COMMUNITY

 ubuntu

 kubuntu

 xubuntu

 edubuntu

INTERVIEW :
NICOLAS VALCARCEL

HOW TO :
PROGRAM IN C - PART 5
WEB DEVELOPMENT - PART 2
CHANGE VIDEO ASPECT RATIO
UBUNTU ISO TO BOOTABLE USB

COMMAND AND CONQUER :
FORMATTING OUTPUT

GAME REVIEW :
TRIBAL TROUBLE 2

THE RESULTS ARE IN!

SURVEY RESULTS





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P.08



P.11



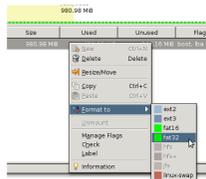
P.26



P.29



P.16



P.20



P.38



P.43

	News	p.04
	Command and Conquer : Formatting Output	p.06
	How-To : Program In C - Part 5 Web Development - Part 2 Changing Video Aspect Ratio Ubuntu ISO To Bootable USB	p.08 p.11 p.16 p.20
	My Story : Creative Zen V Plus In Ubuntu	p.23
	My Opinion : Missed Opportunity	p.24
	Game Review: Tribal Trouble 2	p.26
	Interview : Nicolas Valcarcel	p.29
	Survey Results	p.31
	Ubuntu Games	p.38
	Q&A	p.40
	My Desktop	p.41
	Top 5 : Torrent Tools	p.43
	How to Contribute	p.45

icons: KDE4 Oxygen



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EDITORIAL

Welcome to another issue of Full Circle Magazine.

The first issue of 2009 brings you the results of the FCM#20 survey. Whilst the majority of the results were as expected, some were quite surprising. Well, to me they were. You can read all about the results (with bar graphs no less!) on [page 31](#). With the results, I've also posted a link to one of our wiki pages which has article ideas that are up for grabs. Reserve them while you can!

One thing that was often requested in the survey comments was an article on putting Ubuntu onto a bootable USB stick. I've recently been installing Ubuntu variants on my EEE PC, so I've written an article on how I use *Gparted* and *Unetbootin* to put Ubuntu on a USB stick. Next month I'll be using it to show how I install a distro on the EEE PC.

No book review this month folks, sorry, I just couldn't finish the current book in time for the deadline. Probably next month I (or Robert) will review a new book. And to the two winners thus far: I promise to send your books out shortly!

Enjoy the issue, and I wish you all the best of luck in 2009!

All the best,

Ronnie

Editor, Full Circle Magazine

ronnie@fullcirclemagazine.org

This magazine was created using :



What is Ubuntu?

Ubuntu is a complete operating system that is perfect for laptops, desktops and servers. Whether at home, school or work Ubuntu contains all the applications you'll ever need including word processor, email application and web browser.

Ubuntu is and always will be free of charge. You do not pay any licensing fees. You can download, use and share Ubuntu with your friends, family, school or business for absolutely nothing.

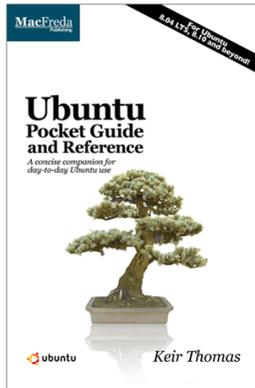
Once installed, your system is ready to use with a full set of productivity, internet, drawing and graphics applications, and games.

<http://url.fullcirclemagazine.org/7e8944>



NEWS

Ubuntu Pocket Guide And Reference



Ubuntu Pocket Guide and Reference is available in both print and PDF editions. The print edition is available for \$9.94 from Amazon.com, and the PDF edition is completely free and is identical to the print edition.

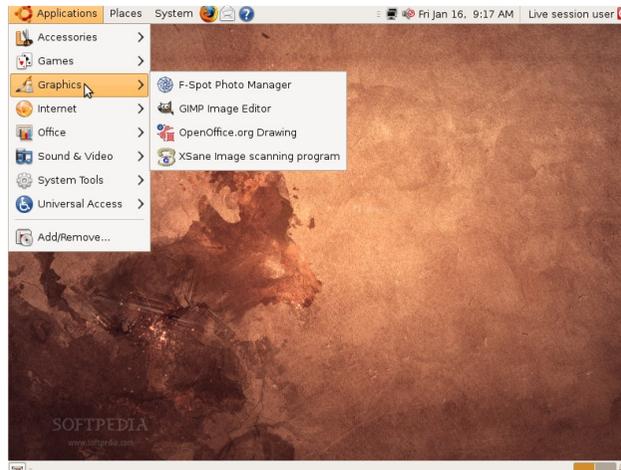
Author Keir Thomas told FCM:

In the 48 hours since the site went live, the book has been downloaded over 100,000 times. It has become easily the most widely-read Ubuntu book out there and, possibly, the most widely-read Linux book of all time! I'm pleased to say the book is also topping the Amazon.com Linux books best-seller list.

Source:
<http://www.ubuntupocketguide.com/>

Amazon.com link:
<http://url.fullcirclemagazine.org/bce9ea>

Jaunty Alpha 3 released



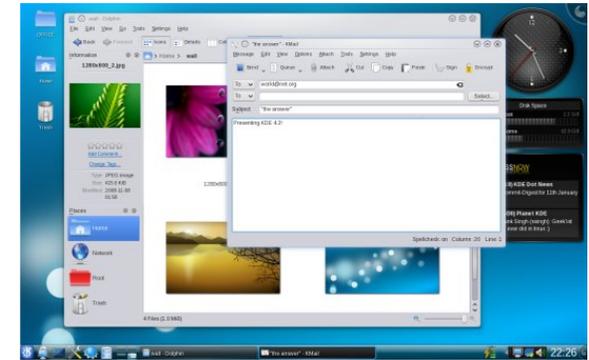
Jaunty Jackalope Alpha 3, which will in time become Ubuntu 9.04, has been released. Alpha 3 is the second in a series of milestone CD images that will be released throughout the Jaunty development cycle. The Alpha images are known to be reasonably free of show stopper CD build or installer bugs, while representing a very recent snapshot of Jaunty.

See <http://wiki.ubuntu.com/Mirrors> for a list of download sites.

Pre-releases of Jaunty are **not** encouraged for anyone needing a stable system or anyone who is not comfortable running into occasional, even frequent breakage. They are, however, recommended for Ubuntu developers and those who want to help in testing, reporting, and fixing bugs.

Source:
<https://wiki.ubuntu.com/UbuntuWeeklyNewletter/Issue125>

KDE 4.2 - 'The Answer'



The KDE Community have announced the immediate availability of "The Answer", (a.k.a KDE 4.2.0), making ready the desktop for end users. KDE 4.2 builds on the technology introduced with KDE 4.0 in January 2008. After the release of KDE 4.1, which was aimed at casual users, the KDE Community is now confident we have a compelling offering for the majority of end users.

Source: <http://kde.org>

FCM#20 COMPETITION WINNER

Congratulations to **David Coston** who wins our copy of *Ubuntu Kung Fu*. We'll get that sent off to you as quickly as we can.

If you didn't win, sorry, but there'll be another competition next month.



NEWS

Ubuntu 9.04's blazing boot times

According to IT Wire's David M Williams, the results of the latest alpha release of Ubuntu's Jaunty Jackalope are spectacular. The next major release of Ubuntu will be out this April and Ubuntu's engineers have, as always, included the latest Linux kernel to come out of Linus Torvalds' hands. While the kernel always includes more drivers, better performance and various bug fixes, often times these go under the radar because they are obscure, or only of niche interest. The Linux kernel 2.6.28 delivers a stable implementation of the ext4 file system. It's this file system which is getting geeks worldwide all steamy under the collar. ext4 looks set to offer greater file performance along with greater reliability and stability. What's more, while ext3 was designed well before the advent of SSDs, ext4 is fully aware of such drives. ext4 includes the ability to maximize the lifetime of solid state drives and thus should theoretically offer a boost to netbooks without any corresponding fear of a shortened lifetime. Here's to Ubuntu 9.04 and better disk speed!

Source:
<http://www.itwire.com/content/view/2267/1/1141/>

Shuttleworth praises Windows 7



Blogger Gavin Clarke reports on Mark Shuttleworth's reaction to Windows 7.

Shuttleworth states he is looking forward to a good, clean netbook fight with Microsoft following the release of Windows 7. He believes that with Microsoft having to sell Windows 7 to OEMs instead of giving Windows XP away to them, it will improve Ubuntu's place in the market. Shuttleworth thinks that a good version of Windows will end the current phony war between Windows and Linux in the high-growth netbook market, and reignite the fight on features and capabilities.

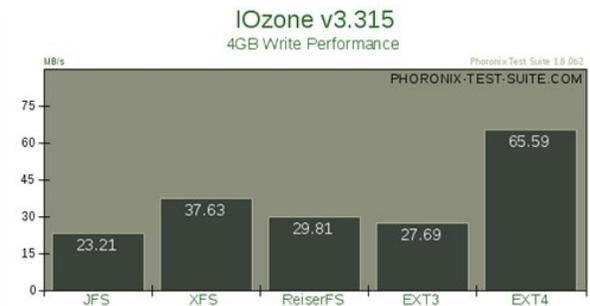
Even with the new features that Windows 7 is coming out with, the plans for Ubuntu 9.04 Jaunty Jackalope, will up it's game to keep pace.

Source:
http://www.theregister.co.uk/2009/01/22/shuttleworth_windows_7/
 and: **Ubuntu Weekly News**
<https://wiki.ubuntu.com/UbuntuWeeklyNews/letter/Issue126>

Ext4 Arrives In Ubuntu 9.04

Ext4, the next generation of Linux's Ext3 filesystem, is now available in the latest Ubuntu 9.04 installer images. Ext4 was officially declared stable in version 2.6.28 of the Linux kernel, which was released last month.

Ext4 is designed to provide better performance and increase reliability. It also increases the maximum filesystem size to one exabyte and reduces the amount of time that is required to perform a fsck operation.



Linux hardware site Phoronix has released benchmarks (above) based on extensive Ext4 performance testing that was conducted with a solid-state drive. The most impressive results can be seen in the IOzone test, which measures write performance for a large file. In this test, Ext4 annihilated the competition and significantly outperformed XFS, JFS, ReiserFS, and Ext3. The new filesystem also outpaced its peers in the Intel IOMeter File Server Access Pattern Test.

Source: <http://arstechnica.com>



COMMAND AND CONQUER

Written by Lucas Westermann

In this instalment of Command & Conquer, we will cover the basic uses of *grep*, *sed*, *awk*, *cat*, and *cut* for formatting output. This can be useful when putting together things such as Conky, or scripts that display theme information in the terminal.

The first command we should look at is *cut*. If, for example, we wanted to display the distribution name in a theme script, we would find it in `/etc/issue`. If, however, we run `cat /etc/issue` we see that there is one line too many, and there are escape characters included in the line. So if we run `/etc/issue|head -n 1`, we remove the extra line by piping the output of *cat* through *head*, which then displays only the first line of the output. So far so good, but what about the escape characters? This is where *cut* comes in handy. To use *cut*, we must supply a delimiter, and then tell it what to do with this. The command we would use is:

```
cat /etc/issue|head -n 1|cut --  
delimiter=' ' -f 1,2
```

This command then tells *cut* that the delimiter to use is a blank space, and to display the first two fields (basically, *cut* slices output up into segments according to the delimiter, so fields 1 and 2 are the first fields before and after the first delimiter in the output, in our case, Ubuntu 8.10). *Cut* can also be used to display only a certain number of characters when using the `-c` flag.

With *sed* the same could be done with:

```
cat /etc/issue|sed '{s/\n// ;  
s/\l// ; /^$/d}'
```

This may look like gibberish, but the first two expressions (each expression is separated by a semi-colon) tell *sed* to substitute “\n” with “” (nothing), and the same for “\l”, removing those characters from the output. “/^\$/d” is a command that tells *sed* to delete any blank lines (“^\$” is the regular expression for a

line that begins with a blank and ends with a blank and has nothing between those -- a blank line). So `'s/\n\b//'` is merely telling *sed* to substitute (“s/”) “\n” (“\n”) with “” (“//”). The reason the command is in braces is because we are actually applying three expressions on the output, and want it returned only once, so we put the expressions in braces (“{ }”), and separated by semi-colons.

Lastly, the same output can be achieved using *awk*:

```
cat /etc/issue|awk '/\n/  
{print $1,$2}'
```

This command again uses regular expressions, but is slightly easier to understand than *sed*. Basically, `awk '/\n/{print $1, $2}'` finds any line that has “\n” in it, then prints the first two fields (the default separator is a space, but you can set your own using the `-F` flag). This saves us having to format out the extra line and the `\l` of the output. You could also forgo piping the output of *cat* `/etc/issue` into the command (or



either of the others), as they can all be applied to a file specified at the end of the command. I used cat in order to leave the commands less jumbled.

This is intended only as an introductory look at the abilities of awk, sed, and cut. Their flexible implementations make it hard to write a brief in-depth tutorial for the three of them. The above explanations are intended to illustrate how the commands work, and not fully explore their potential uses. A real-world implementation of these commands would be in the first half of a custom theme script (the example below also displays theme info, but that part isn't necessarily pertinent to this article; it was left there to keep the script complete). The example also contains a challenge for anyone who wishes to attempt it: Figure out how to use one of the three commands to remove the indentation in the memory part of the script, and, if you want more practice, try replacing every occurrence of cut, sed, or awk with a different command that

does the same (i.e. replace a cut command with awk). There is no prize, but it is good practice to figure out the inner workings of the commands.

<http://fullcirclemagazine.org/issue-21-shell-script/>

Further Reading:

Sed -

<http://www.grymoire.com/Unix/Sed.html>

awk -

<http://www.linuxjournal.com/article/8913> or
http://www.linuxfocus.org/English/September_1999/article103.html

cut -

<http://learnlinux.tsf.org.za/courses/build/shell-scripting/ch03s04.html>

The man (manual) page of each command, can be accessed with:

```
man [command]
```

this is useful if you're unsure of how to invoke a command.



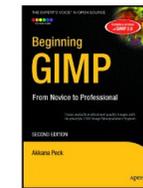
Lucas has learned all he knows from repeatedly breaking his system, then having no other option but to discover how to fix it. When he finds time, he also publishes a blog at <http://lswest-ubuntu.blogspot.com>.

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HOW-TO

Written by Elie De Brauer

PROGRAM IN C - PART 5

SEE ALSO:

FCM#17-20 - Program In C - Parts 1-4

APPLICABLE TO:

 ubuntu  kubuntu  xubuntu

CATEGORIES:



DEVICES:



we will focus more on how we can make use of C to get things done, how issues with C applications can be diagnosed, and how troubleshooting can be done.

Function pointers

We already explained that if `int a` is an integer then `int * b=&a` declares a pointer `b` and initializes it to point to `a`. Now, take a look at Listing 1; here we have a function called `divide` (lines 1-4), and, on line 6, we have a typedef where we define a new datatype called "mathFun" - which is a function pointer to a function returning an integer, and taking two integers as an argument. Lines 8-12 define a structure which links a character with a function. This principle is called a 'callback' (or handler), and is used a lot (in fact this is how object oriented programming can be simulated in C; you define a structure with some data and some function pointers and this is almost a class). But, it's very common to use this, for example, in GUI programming - you register a

```
01.int divide(int a, int b)
02.{
03.    return a/b;
04.}
05.
06.typedef int
(*mathFun)(int, int);
07.
08.struct operator
09.{
10.    char c;
11.    mathFun f;
12.};
```

Listing 1

function which needs to be called when the user performs an action. If you have the `manpages-dev` package installed, and type "man `qsort`", you will get the definition of a function which implements the quicksort algorithm (see also Listing 2), and you can see that this function is used for sorting some data, and you should pass it a function pointer to a function

After four articles, most of the basic and generic C-related topics have already been covered. I hope that after these articles you can confirm two things: the first being that C isn't a terrible large and complex language, and the second being that it is also a very powerful language which allows you to do lots of low-level things. This will be the last article to cover the "basics"; in the coming articles,



```
NAME
    qsort - sorts an array
SYNOPSIS
    #include <stdlib.h>

    void qsort(void *base, size_t nmem, size_t size,
               int(*compar)(const void *, const void *));
DESCRIPTION
    The qsort() function sorts an array with nmem elements of size size.
    The base argument points to the start of the array.
```

Listing 2: man 3 qsort extract

capable of doing the comparison (this can be useful when you are sorting an array of points, and you wish to sort them on distance to the origin).

A simple calculator

Now, to illustrate how we can use callbacks, which are typically used to handle events, we will develop a small application which prompts the user for two digits and an operator and, if the operator is known, it calls the function with the two digits as parameters and prints the result.

Listing 3 shows a basic implementation of this; on line 3

we allocate storage for four structures which are filled in with the operator and the function pointers on lines 4-7. Next, there is the user input handling on lines 12 to 18. When the user has entered some input, lines 20-32 show a search through the command array to find the entry matching the operator and, if found, we issue the callback with the read data, and print the result. And that's all there is to it.

User Input

Although printf() was already used in the past, this is the first time we encounter a scanf()-alike function (alike because there are some variants like sscanf(), fscanf(), ... see

man scanf for details). These functions are the opposite of printf() (and sprintf(), fprintf() ...). Where printf() takes a format definition to format some variables accordingly, and put this to a destination, scanf() will read a string, dissect the string according to the

format, and store the result in some variables. Take line 13 for example; here, it will read a "%d" (an integer), and store the result in the location passed as an argument (note that here we pass pointers, with printf() variables are passed). But there's nothing more to it than that. The format strings are completely alike. The only confusing thing might be line 17; we need a second scanf() because the first one will read the newline of the previous read. As with printf(), it is possible to have more complex format strings where multiple variables are read at once; in this case you will be interested in the return



value of `scanf()` which is the number of elements properly decoded. I strongly suggest to play a little with `scanf()`, `printf()`, and various formats, since these format strings can be found almost everywhere, and it's very useful to understand how they behave. One important thing to keep in mind, when handling strings, is to keep track of the amount of data you read. Something as simple as `char s[10]; scanf("%s\n",s);` is the de facto example of a buffer overflow, waiting to be exploited; for things like these one should limit the amount of bytes read in the format, or use more advanced solutions like `getline()` (man `getline`) which dynamically allocates more memory if it is needed.

Exercises:

- Write the missing callbacks, and get the application working.
- Modify the application to operate on floating point numbers instead of integers.
- Write an application which sorts points

based on their distance to the origin, and use the `qsort()` function for this.

- Extend the calculator with the possibility for the user to enter 'q' to quit.
- Modify the application that, instead of entering characters, the user is able to enter "5 plus 6" or "6 minus 5". In order to do this, you will need to adapt the structure to hold a string as the operator, and, instead of reading a character, you will need to read a string. Extra credit if you manage to do this without buffer overrun issues (see man `getline`) and memory leaks.



Elie De Brauwer is a Belgian Linux fanatic, and apart from spending time with his family, he enjoys playing with technology, and spends his days waiting for Blizzard to finally release Diablo III.

```

01.int main()
02.{
03.    struct operator  funcs[4];
04.    funcs[0].c='-'; funcs[0].f=&minus;
05.    funcs[1].c='+'; funcs[1].f=&add;
06.    funcs[2].c='*'; funcs[2].f=&multiply;
07.    funcs[3].c='/'; funcs[3].f=&divide;
08.    while(1)
09.    {
10.        int a,b,i;
11.        char c;
12.        printf("Enter a:\n");
13.        scanf("%d",&a);
14.        printf("Enter b:\n");
15.        scanf("%d",&b);
16.        printf("Enter the operator:\n");
17.        scanf("%c",&c); // Get the newline
18.        scanf("%c",&c);
19.        i=0;
20.        while(i<4)
21.        {
22.            if(funcs[i].c==c)
23.            {
24.                printf("Result:
%d\n",funcs[i].f(a,b));
25.                break;
26.            }
27.            i++;
28.        }
29.        if(i==4)
30.        {
31.            printf("Unknown operator:
%c\n",c);
32.        }
33.    }
34.    return 0;
35. }

```

Listing 3: calc.c main loop



HOW-TO

Written by Brett Alton

WEB DEVELOPMENT - PART 2

SEE ALSO:

FCM#20 - Web Development - Part 1

APPLICABLE TO:

 ubuntu  kubuntu  xubuntu

CATEGORIES:



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Talks of a world-wide economic recession, or worries of hackers and viruses infiltrating your personal data, may be behind your reasons to go with Ubuntu. But, whatever the case, you would not be reading this article, or using Ubuntu, if it weren't for the Internet.

So what is the Internet, and how did it come to be?

Annotated, the story of the Internet is quite simple: the Internet was born out of a 1970's research project called ARPANET by the US military research agency DARPA. It was picked up shortly afterwards by Universities as a research project and by scientists to increase intercommunication and data sharing. It wasn't until the early 1990's, with the adoption of the TCP/IP protocol and the creation of the modern PC, that the Internet grew to be what it is today.

Current State Of The Internet

The current state of the Internet is quite overwhelming as a topic, in that it has fragmentation in almost every area, with each fragment able to be covered by a textbook. I will be giving only a brief introduction on how to make a web page, and touching on its technologies and history.

For starters, the Internet has multiple markup languages (HTML 4 & 5; XHTML 1 & 2; CSS 1, 2 & 3; XML; JSON; etc.). These are used to specify the structure, layout, and formatting of web pages and (some) can (or are specifically made to) be used purely for information storage.

Then you have the high-level, server-side, web programming languages such as PHP, ASP/ASP.NET, Python, Java (JSP), Ruby, etc. Each of these programming languages is useful for its own purposes and is usually chosen by programmers according to their skill-set or employer demand. Some prefer to use PHP, Python, and Java because they're free, open source, and can be used on a number of operating systems and processor architectures, while others like ASP/ASP.net for Microsoft's heavy-hand in support, and don't mind paying licensing fees for this purpose. I



will be showing you examples of PHP programming in upcoming articles, but feel free to try other programming languages and experiment! Just because I will show you PHP does not necessarily mean it is the best, nor the best for every purpose. In fact, some developers use multiple languages in their applications (just as a software engineer may use a mixture of Assembly, C, C++, etc).

JavaScript (which is in no way related to Java) is the most popular client-side programming language. Client-side programming languages execute code on the user's PC through their web browser, allowing web programmers to produce a much more intimate interface for the user. Of course, this comes at the expense of processing power on the user's end, so complex websites like Digg.com are known to slow down older PCs, especially when multi-tasking (running multiple programs at once).

JavaScript is so useful for certain purposes, that, according

to Ohloh [1], Firefox is comprised of more than 50% JavaScript code.

Since JavaScript is so important to many web developers, frameworks have sprung up to make programming JavaScript easier, adopt an object-oriented nature, or to add simple AJAX (Asynchronous JavaScript and XML) support. These frameworks include, but are not limited to jQuery, YUI, Mootools, Prototype & Script.aculo.us, Dojo, etc.

Put all of these technologies together, along with corporate or not-for-profit backing, and you get some of the most popular websites in the world, such as Wikipedia, Google, Yahoo, CNN, BBC, YouTube, DailyMotion, Facebook, MySpace, Digg, Ubuntu Forums, Kijiji, Craigslist, ESPN, Flickr and DeviantArt.

There are also technologies that can be used in web development such as Java applets and Flash animations, but they're out of the realm of this tutorial.

So what do I need to make a website?

- An operating system such as Ubuntu

- A text editor such as gEdit (Applications > Accessories > Text Editor)
- A web browser such as Firefox (Applications > Internet > Firefox Web Browser)
- patience, and a will to learn

Assuming you're using Ubuntu, open up Firefox and gEdit, and keep them open, as you'll use both for programming, debugging, and viewing your web page.

Creating Your First Website

With gEdit open, type the following code, and save it as 'first.html' onto your Desktop.

```
<html>
<head>
</head>
<body>
</body>
</html>
```

Now, on your desktop, double-click 'first.html' to view it in Firefox. Do you see a blank page? You should. So why is the page blank? Well I just introduced to you the basic



markup of a HTML 4 website. All code must be encoded inside the `<html></html>` tags with the content inside `<body></body>` tags and meta information, such as meta-tags, inclusion of other code (such as JavaScript), and display information such as CSS inside `<head></head>`.

For the second example, I will show you how to fill out the HTML 4 template I provided above.

Type listing 2 (right) into a new document in gEdit, and save it as 'second.html'.

Now double-click 'second.html' on your desktop to run the web page in Firefox. This time you should see content.

To understand why the page looks like it does, we'll look carefully at the markup we just copied and pasted into gEdit and saved as 'second.html'.

When the `<title></title>` tag is inside the `<head></head>` tag, it displays the enclosed text in the title bar of the web browser. Notice how the title bar of Firefox now displays "My Writings -

```
<html>
<head>
<title>My Writings</title>
</head>
<body>
<h1>My Writings</h1>
<p>
I watch a <u><i>LOT</i></u> of
television, but is it healthy?
</p>
<p>
I do lots of stuff like:
</p>
<ul>
<li>sit on the couch</li>
<li>watch movies</li>
<li>get up to eat food</li>
</ul>
<p>
Do you live any healthier?
</p>
</body>
</html>
```

Listing 2

Mozilla Firefox". This, of course, can be changed to anything you'd like.

Inside the `<body></body>` tag is where the content of the page is displayed. The first tag is the level-1

header tag (`<h1></h1>`). This is usually used only once (although there is no rule against using it more often), and displays the page's most prominent theme. There are seven levels available, with `<h7></h7>` being the last header. Prominent headers can be seen, for example, in Wikipedia articles.

The `<p></p>` tag stands for paragraph, and usually displays the page's main content.

After tables, lists are probably the most difficult concept for a newcomer to grasp. Using `` (an unordered list, meaning it uses bullets), we display our content in `` tags, dictating the list we want to display. Using `` (an ordered list) instead of `` will produce numbers instead of bullets. You can even embed lists within lists, by producing a second `` or `` tag within a `` tag.



```
<ul>
<li>sit on the couch</li>
<li>
watch movies
<ul>
<li>dramas</li>
<li>action</li>
<li>etc.</li>
</ul>
</li>
<li>get up to eat food</li>
</ul>
```

Lastly, you can manage the design of your web page by embedding CSS (cascading style sheets) into your HTML.

Save listing 3 (right) as 'third.html' onto your desktop.

Now double-click 'third.html' on your desktop to run the web page in Firefox. This time you should see a change in how the content is displayed.

CSS can either be directly embedded inside the `<head></head>` tag using the `<style></style>` tag, or can be linked externally to another file which contains your CSS. For now,

we'll keep it embedded in the HTML.

As you can see, CSS has a different syntax than HTML, and uses opening and closing braces `{}` instead of tags `<p></p>` to dictate elements. In CSS, this is called a selector, as we are selecting the tag we would like to edit.

With my example above, we modify the `<h1></h1>` and `<p></p>` tags by changing their attributes using pre-defined CSS properties. Even as a web professional, I don't have all of the CSS properties memorized, and often find myself googling on how to use them, so don't be embarrassed if you have to do so as well. In fact, many websites have created HTML and CSS 'cheat sheets' just for this purpose.

The funny looking numbers '#ff0000' are hexadecimal numbers that represent colors. There are over sixteen million combinations of colors available using this method, so make sure to use a program such as Agave

```
<html>
<head>
<title>My Writings</title>
<style type="text/css">
h1 {
color: #ff0000;
border-bottom: 5px solid #000000;
text-align: center;
}
p {
text-transform: uppercase;
}
</style>
</head>
<body>
<h1>My Writings</h1>
<p>
I watch a <u><i>LOT</i></u> of
television, but is it healthy?
</p>
<p>
I do lots of stuff like:
</p>
<ul>
<li>sit on the couch</li>
<li>watch movies</li>
<li>get up to eat food</li>
</ul>
<p>
Do you live any healthier?
</p>
</body>
</html>
```

Listing 3



to create color schemes.

This only scratches the very tip of web development, and what is possible when programming or designing. If this sparked your interest in web development, then I suggest following up with my upcoming articles, as I will be touching on server-side programming (PHP), client-side programming (JavaScript, jQuery, AJAX), and much more. After that, I suggest going to your local bookstore and picking up a book in the area you're interested in (design, server-side programming, client-side programming, etc), or taking courses at your local community college or university.

[1]
<http://www.ohloh.net/p/firefox/analyses/latest>



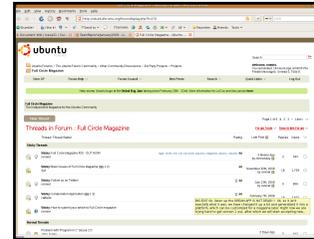
full circle

how to contact us



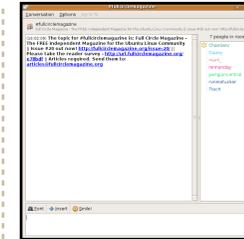
Blog

Sign up on our blog to be notified as soon as a new issue is released.



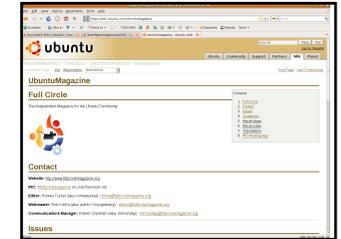
Forum

Post on our forum, hosted at Ubuntu Forums, for quick responses by fellow readers.



IRC

Chat on our IRC channel. This is where Robert lives. Not only will you get answers, but you'll keep Robert happy.



Wiki

Edit our wiki, hosted at Ubuntu.com, for reserving article ideas, and keeping things in order.



Brett Alton is an Ubuntu enthusiast, computer technician and software engineer from Toronto, Canada

And if all that isn't enough, we also have - of course - **email**. You can get a full list of email addresses on [page 45](#), or you can send general comments, and ideas, to: misc@fullcirclemagazine.org



HOW-TO

Written by Kurt De Smet

CHANGE VIDEO ASPECT RATIO

SEE ALSO:

N/A

APPLICABLE TO:

 ubuntu  kubuntu  xubuntu

CATEGORIES:



DEVICES:



Avidemux is available in the Ubuntu repositories. Just search for 'avidemux' in your package manager.

When incorrectly ripping a DVD, it's possible to get the aspect ratio wrong. Certainly with PAL you need to convert PAL, which is native 4:3, to 16:9. When you rip the DVD, you must then redo the job. But, when you do not have the source, you will have to make

do with what you have. Every player has features to change the aspect ratio; however, when using a stand-alone media player, it can be troublesome.

Let's see what I am talking about. Here you have first the image with the wrong aspect ratio, and then one with the correct aspect ratio. TIP: With a wrong aspect ratio a circular object will look like an ellipse, so try to find a frame with a circular object as close as possible to 90 degrees or head on. If the angle changes, a circular object will turn into an elliptical one. Do not take a person's head as a reference - people can have circular or elliptical heads.

This is what we have:



This is what we want:



One thing to remember is that the quality will not improve by re-encoding; where possible, use the aspect-ratio selector from your media player.

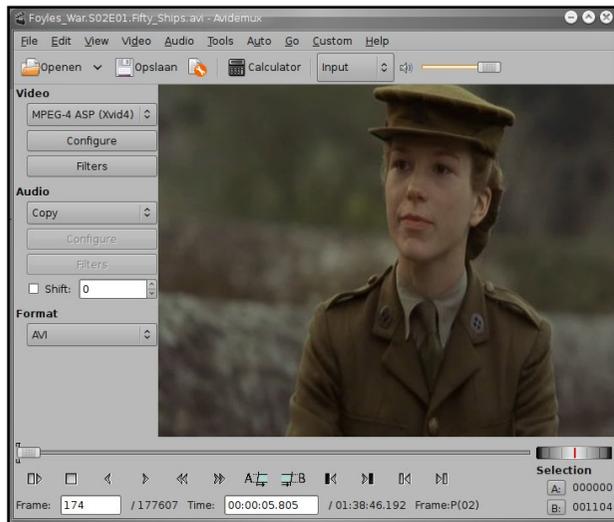
If your file has a Variable Bit Rate MP3 or VBR, it may ask to build a VBR Time Map. Answer yes for building that map.



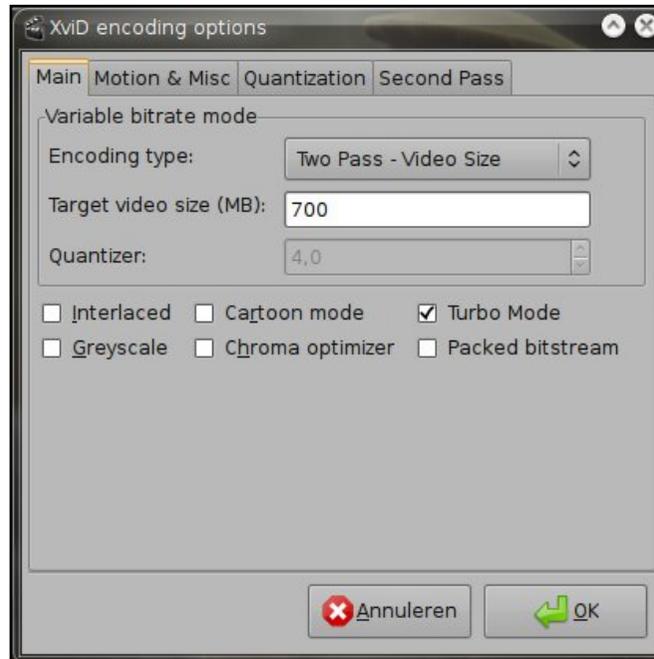


If necessary, Avidemux will ask to rebuild the frame index. Answer yes.

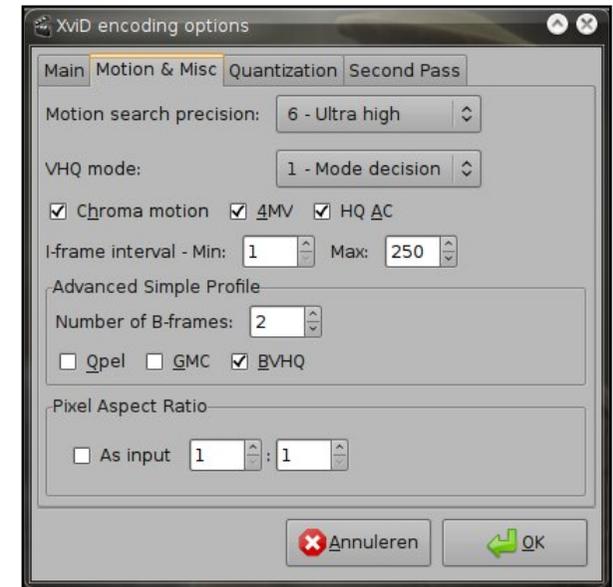
Once the file is loaded, select the Xvid codec, or MPEG-4 ASP (Xvid4) in my case. On the bottom menu, you have 2 buttons named A and B. With these you can select a range of frames to convert. With this you can make a test file that does not take ages to complete. On the bottom right, you can see the selected range, in this case from 0 to 1104. Once satisfied with the result, you can select the whole file for conversion.



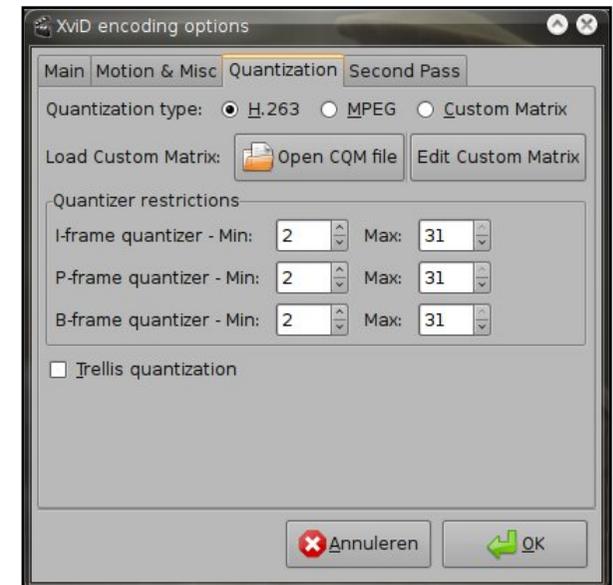
Now we can configure the Xvid settings with the configure button. The settings I use give me the best result, but feel free to test your own settings.



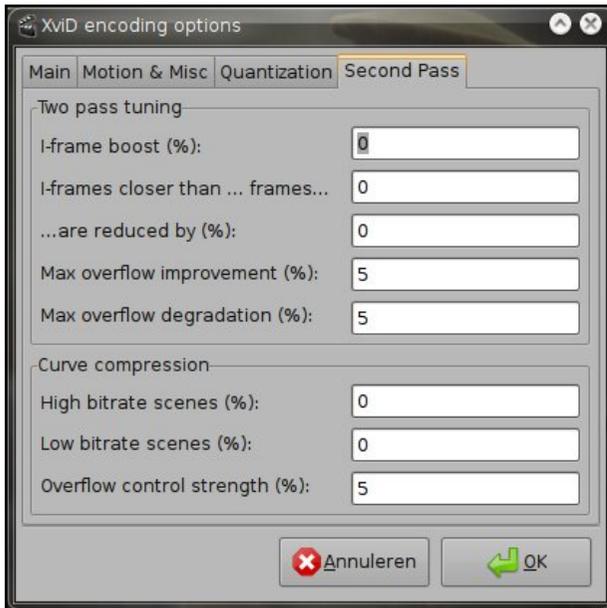
(above) I always select video size, and enter the size of the source file. The result should be close to or smaller than the source. Bigger files do not give better results. I also select Turbo Mode for a faster first pass.



(above) Default settings.

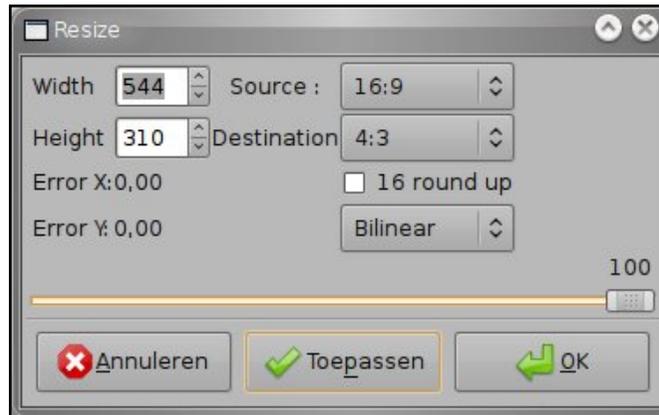
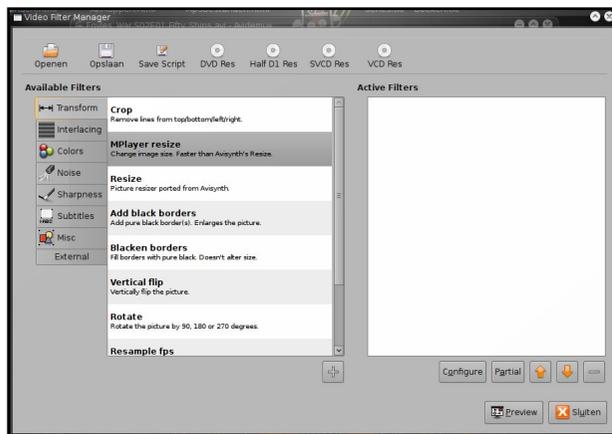


(above) I have tried MPEG, but H.263 gives me the best results.



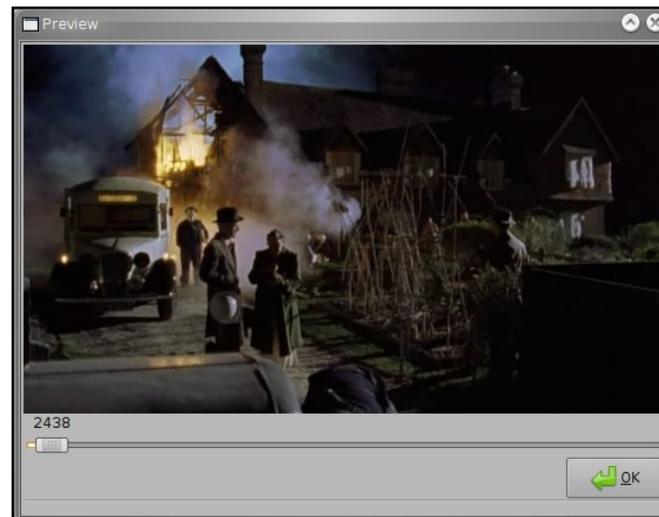
(above) Default settings.

Select the filter button, and the transform tab from the filter window, and double click 'Mplayer resize'.



Now you have to enter the resize options. Select the options like in the picture above, and click apply. Now width and height will change. Now click OK.

In the filter manager, there is a button named 'Preview'. Select it and you should get the following result...



Now you have the choice to convert the entire file, or a test segment, as mentioned previously. Now you can select 'save' to create the file. Depending on the hardware and file size, this can take a long time to complete.

Select your media player, and check if audio and video is in sync. While VLC handled the file perfectly, Mplayer did play the file out of sync. If the file is in sync, then you have finished the job; if not, you will have to continue to the next section of this tutorial. Do not worry; VLC will play the shifted file perfectly in sync, probably because it handles VBR MP3 differently than MPlayer.

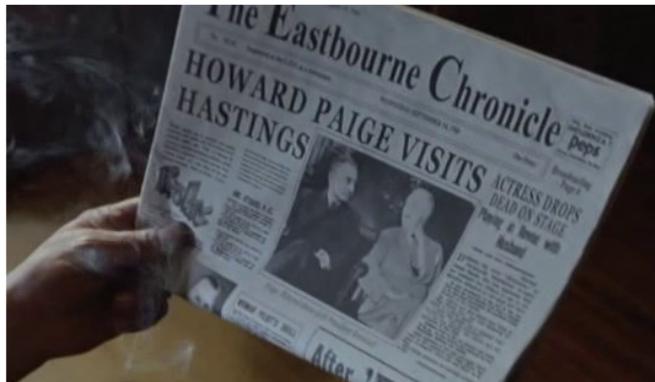
Open your new created file with Avidemux, and be sure to build a time map and rebuild the index. With Mplayer you can use the + and - key to determine the necessary shift up or down. You will have to invert the result: a -200 becomes 200 and 200 becomes -200. Also, the given time in Mplayer is not usable in



Avidemux, but is more a guideline where to go. Select a small portion of the file, and try out which value gives the best result. As an example, the used file was in sync in Mplayer with -600 ms; the Value I had to use in Avidemux was 200.

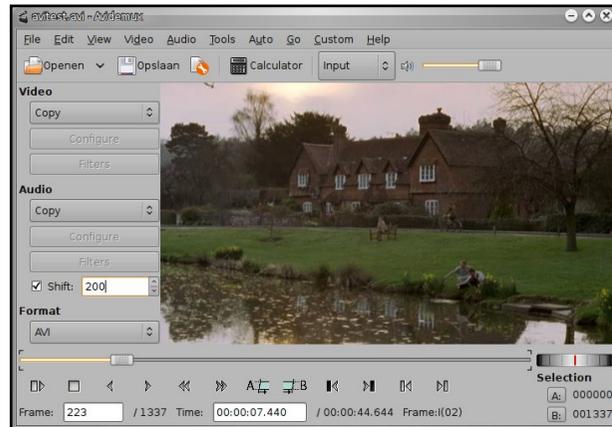


(above) Resized by Mplayer.

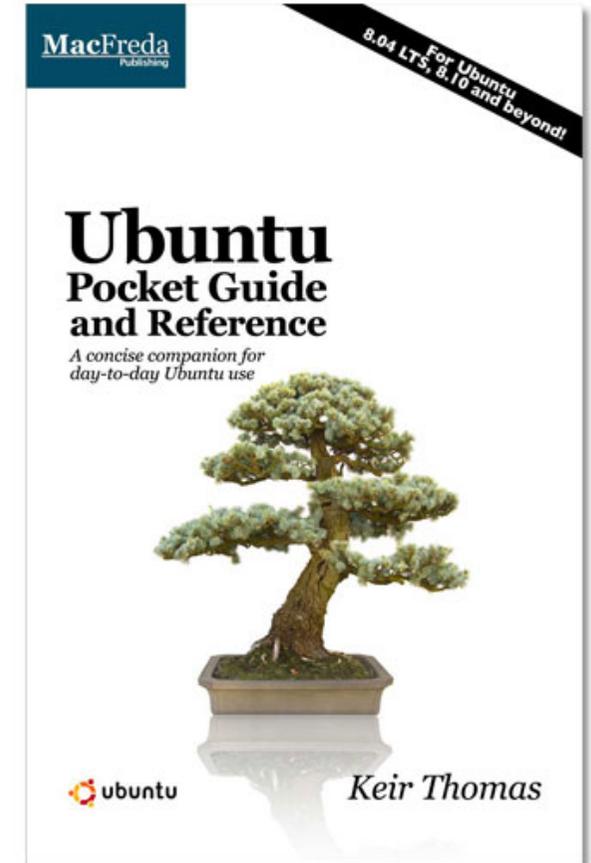


(above) Resized with Avidemux.

As always in Linux, there is a CLI way, but for those who do not need scripts for every day use, this is a solution that works for me.



Conclusion: As an example, I have placed a player conversion next to an encoded conversion to see the difference in quality.



Ubuntu Pocket Guide and Reference

\$9.94 from Amazon.com
or
FREE from

www.ubuntupocketguide.com



HOW-TO

Written by Ronnie Tucker

UBUNTU ISO TO BOOTABLE USB

SEE ALSO:

N/A

APPLICABLE TO:

CATEGORIES:



DEVICES:



Creating a bootable USB drive is relatively simple yet comes in very handy, not only for showing someone Ubuntu running from the USB stick, and for troubleshooting, but also for testing hardware. Imagine you're at your local computer retailer, and you wonder if that expensive machine will run Ubuntu before you purchase it. Ask if you can use your USB stick in it. If they say no, they've lost a sale, and

you've saved money.

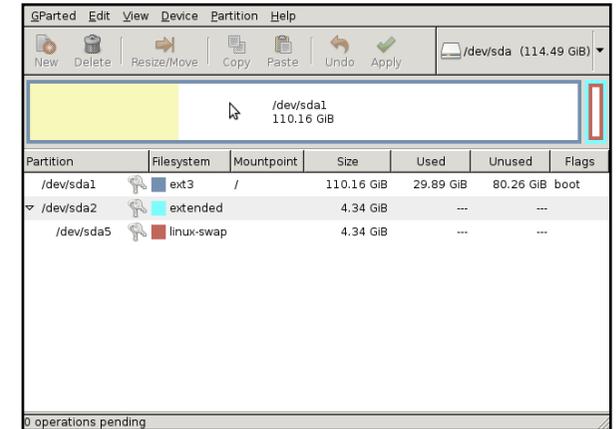
First, I need a USB stick. For installing Ubuntu it must be at least 1Gb. I also need an ISO file of Ubuntu. I have two choices here: pick the standard installer version with a graphical user interface (GUI), or use the alternate text-based installer, which is excellent for installing on low spec machines. For now, I'll go with the standard installer, but it's the exact same process for the alternate installer.

So I have the ISO file on my computer, but I need to prepare the USB stick. For this I need Gparted. You can either open your package manager, and search for the gparted package, or use the command:

```
sudo apt-get install gparted
```

Gparted is installed under System > Administration > Partition Editor.

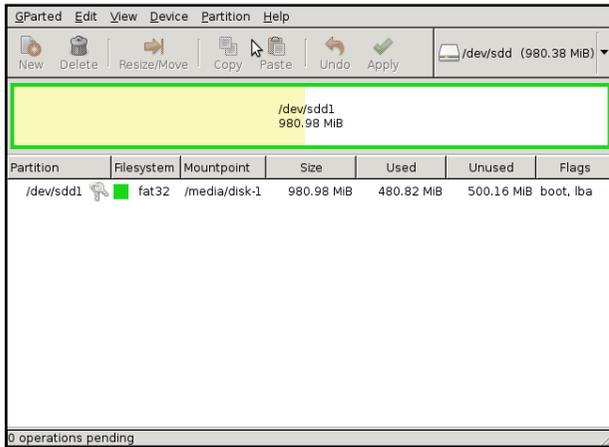
Above right is Gparted showing my current list of drives. What we need to do, in Gparted, is to format the USB stick and make it bootable.



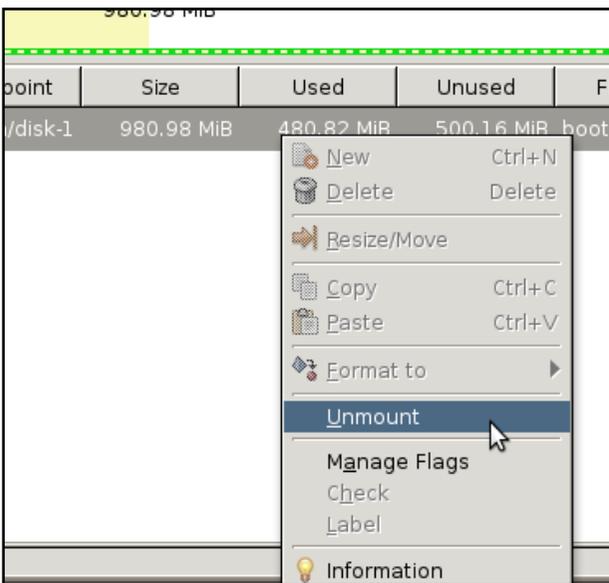
Making it bootable is the most important part.

WARNING: we are about to completely erase the USB stick, so if you have anything valuable on it, you must back it up now.

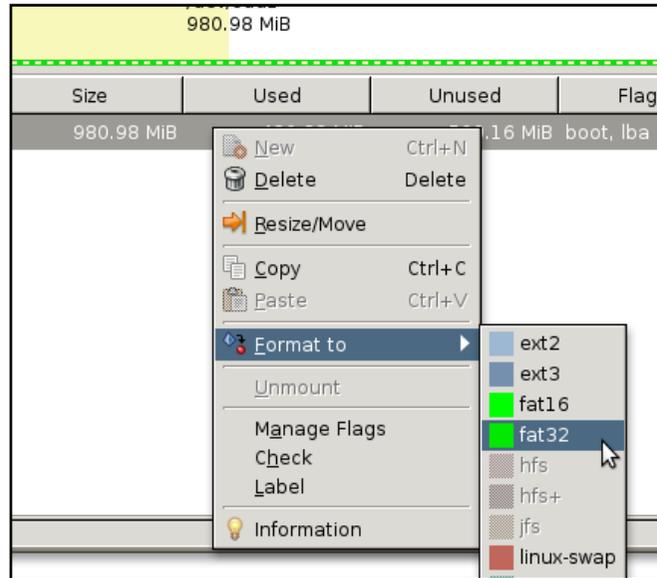
Once the USB stick is inserted, go to the menu and choose Gparted > Refresh Devices. On its list of drives, Gparted now shows my 1Gb USB as /dev/sdd at 980.33MiB.



In the above image, you'll see that it has 480Mb used. So, it needs formatting. But before we can format, we need to unmount the drive. Right click on the drive name (and info) and choose 'unmount'.

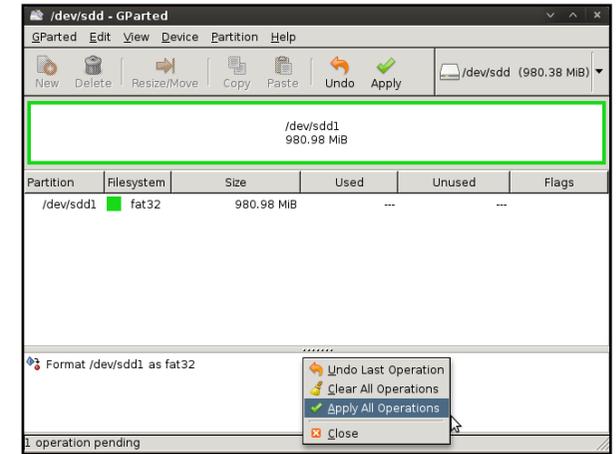


Next, we format the USB by, again, right clicking on the drive name and, from the menu, choosing Format To > FAT32 (you can, if you wish, choose FAT16 for more compatibility).



You'll see a new panel at the bottom of the Gparted screen. Here you can queue up actions, then have them run sequentially. We need only to format, so right click in that new panel and choose 'Apply all Operations'. You will be asked if you are sure you want to apply this operation. Click 'Apply' (above right).

Your USB stick is now blank, but is it bootable? Let's find out. Right click on the drive name in Gparted and,



from the menu, choose 'Manage Flags'.



In my case (left), my USB is bootable, shown by the ticked box

beside 'boot'. Needless to say, if this box is not ticked, now is the time to tick it, and click 'Close'. So now the USB stick is ready for Ubuntu. Pull out your USB stick, and reinsert it to remount it, ready for later.

But how to get Ubuntu into the USB stick? Unetbootin. This GUI application will copy the files



within an ISO file to the USB stick. You can download the latest .deb file for Unetbootin from:

<http://unetbootin.sourceforge.net/unetbootin-i386-latest.deb/>.

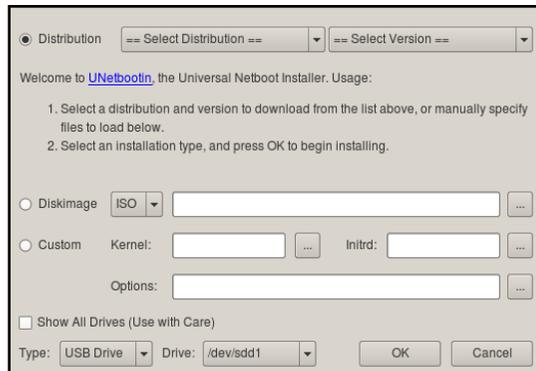


Browsers, such as Firefox, will ask you if you want to save the .deb to your

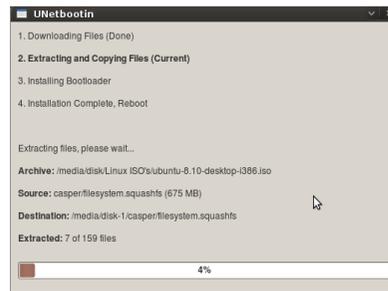
computer or, handily, download the file and open it in Gdebi for installing. I chose to open it in Gdebi for ease of use.

The file will download and the Gdebi window will open up and install Unetbootin for you. When the install is done, close Gdebi.

Unetbootin is installed under Applications > System Tools. Start Unetbootin and you will see the default screen:



At the top of the Unetbootin screen, you can choose to automatically download an ISO from the list, but we already have the ISO, so click the round icon beside 'Diskimage', then click the '...' button to select the ISO file. The only other thing you need to check is that your USB drive is selected at the bottom of the window. In this case, it says /dev/sdd1, which is my USB stick, so I'm ready to go. Clicking 'OK' begins the copying process.



On my system - which is pretty fast - Unetbootin pauses for quite a few

minutes at 4%. Don't worry if this happens. Remember, your system needs to copy nearly 1Gb of files through the USB.

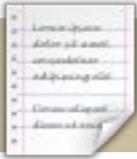
You can either click 'Reboot Now' to test your new bootable USB stick on the current machine, or click 'Exit' to close Unetbootin. Remember to check that your USB stick is properly unmounted before you remove it from the PC.

PLEASE NOTE: To boot a PC from a USB device, you may have to access the BIOS settings of the PC, to ensure that the first bootable device is the USB - and not the CD/DVD, floppy, nor hard drive; the second bootable device should be the hard drive. Most BIOSes use the Del key (on the keypad, not the Delete key on the keyboard) to access the BIOS settings; some use the F1 or F2 keys. This key press must be done within a few seconds of powering on the machine. When no further USB booting is required, remember to reset the Boot-Sequence back to the hard drive (only).

NEXT MONTH: How to install an Ubuntu distro to your ASUS EEE PC using a bootable USB stick.



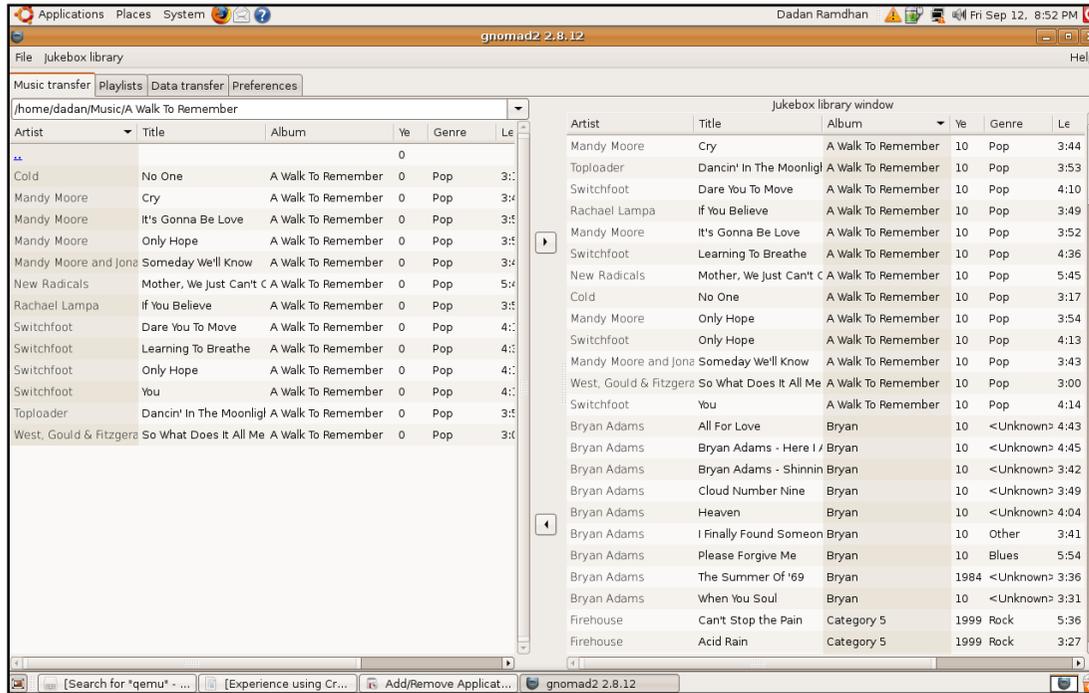
Ronnie Tucker is Editor of Full Circle magazine, a recent GNOME convert, and artist whose gallery of work can be seen at www.RonnieTucker.co.uk.



MY STORY

Written by Dadan Ramdhan

THE CREATIVE ZEN V PLUS



Windows 2000. So, every time I wanted to change music, I had to borrow my brother's notebook. What a pain!

connected my Zen V Plus to Gnomad2 and it worked. The application can read and transfer music to my device with ease.

And this, by the way, is the first time I have used Linux. I will continue to use Ubuntu. My thanks go out to the Ubuntu team, and to the Gnomad2 Team. You are both amazing.

Several weeks ago, I bought a new Lenovo Thinkpad R61i

When I bought my Creative Zen V Plus (2 Gb) last year, I didn't know that I should have been running Windows XP to install the Creative application for transferring music between my computer and the device. So, I installed the Creative application to my younger brother's notebook, mainly because my office computer used

without an installed operating system. So, I installed Ubuntu 8.04 (Hardy Heron) from my recently arrived Ubuntu Shiplt CDs. I began to like Hardy's look and interface. Then I read in the Ubuntu Forums that Gnomad2 would be useful to send music to my Creative Zen V Plus. I added the required repository to my package manager, and installed Gnomad2. I was delighted when I





MY OPINION

Written by Marc Coleman

MISSED OPPORTUNITY

As someone who follows the comments posted in Planet Ubuntu (<http://planet.ubuntu.com/>), Slashdot (<http://slashdot.org>), and Digg (<http://digg.com>), I notice a continuing and rising trend of Linux experts deriding PC users who mention that they run Ubuntu. They correct the Ubuntu users by saying that they run Linux instead. Educating people is one thing; pushing new users back to Windows is something else. Even developers from other distributions have jumped into the fray, and voiced their frustration that Linux is not just Ubuntu^[1]. The backlash from the general Linux community is surprising and disappointing. Are they all afraid of success and going mainstream? It seems that way.

What they all fail to understand is that having a popular distribution spreading virally all over the Internet via news stories, advocacy, and even blogs, is good

for Linux and not just for Ubuntu. If Microsoft has taught us anything, it's that the most important thing is mind-share, not stability, security, nor usability! When people use a computer, they almost universally have an expectation that it's going to be Windows -- it's taken for granted. Why is that? Could it be because Windows is nearly ubiquitous; and isn't that the problem?

As Microsoft's market share is eroded by market stagnation, apathy, and the lack of innovation, we should be converting people to Linux, not standing in the wings - watching people flock to Apple's Macs. We should not be standing by, watching the erosion of one monopoly with the creation of another!

All this useless infighting within the community over Ubuntu's success is energy better spent advocating FOSS. If non-Linux users are drawn into Linux by Ubuntu, then isn't this a good thing? What made Ubuntu popular? I will tell you it is

accessibility and support -- the one thing that has drawn in the users. Nothing will make someone run back to Windows quicker than a condescending 'expert' who belittles them. Make no mistake, no matter what the propaganda says, there is a steep learning curve between Windows and Linux, especially if you want to do more than browse the Web or use OpenOffice.

Canonical's 'humanising' of Ubuntu was a stroke of genius. Branding a complex piece of open-source software as accessible, and providing a free and extensive network of hand-holding, was its killer app. This is its message to other distributions: our methodology is not patented by Canonical; if you want to compete with Ubuntu, emulate - don't denigrate! And here is a message to expert users everywhere: if someone asks



“Do you know of a good paint package for Ubuntu”, the answer should be GIMP, and not a lecture explaining that Linux is not Ubuntu. You are not educating the person by correcting their comment; you are marginalising them by highlighting their lack of knowledge.

The Linux community has been given a golden opportunity by Canonical that shouldn't be

missed. If the price it pays is that the general population confuses Ubuntu with being Linux, then so be it. If Ubuntu 'embraces and extends' in the Linux community, isn't this something to be commended? The FOSS community is consolidating. This is as natural as forking -- don't fight it, push it.

Linux is widely seen as difficult, fragmented, server-only, and, above all, niche - an operating system for

geeks and hackers, not suitable for your home PC. Let's prove them wrong.

[1]

<http://www.jonobacon.org/2008/1/14/we-are-not-evil-really/>



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Help stomp Ubuntu bugs at the **Global Bug Jam** taking place February 20th - 22nd. More information for LoCos and discussion [here](#).

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GAME REVIEW

Written by Leslie Scheelings

TRIBAL TROUBLE 2



Good games are still rare on the Linux platform. Although we do have some choices, they are nothing compared to the Windows platform. Every now and then, we get to see one that could be labelled as good. It's a matter of taste of course. Tribal Trouble 2 beta is my kids' current choice. We already knew Tribal Trouble, which came as a game to be installed on the PC, but Tribal Trouble 2 beta lifts the game from the local PC to the Internet. It's an on-line game that runs from the

web browser on the PC.

All you need are a Linux computer with Java installed, your web browser, the link to the web site '<http://tribaltrouble2.com/>', and the creation of an account. In this sense, it's like Rune Scape, which has a place to play for free, as well as an account in which you can buy items.

Tribal Trouble 2 starts full screen, but in the options section you can adjust settings and set it to play in a window. The graphics are great, run smooth, and are a joy for the eye. The reference card shows you (left of the web page) how to use the mouse and keyboard for the game. For example, moving the mouse while holding down F or the middle mouse button would give free rotation of view. There are three free quests to play: "Boot Camp The Viking chieftain school", "Oyster Invasion The Enemy Approaches" and "Rotten Eggs Visiting a friend isn't always peaceful", which earn you points. The points can be used to buy new items or a new look!

But why not enter a battle with another player? This is the multi-player function. You can even create a battle room, and ask a friend to battle you, all on-line. After a fierce battle, check out what went wrong so that you can plan a better strategy next time, and watch the game you played in the "games" section of the website of Tribal Trouble 2. Now, as we said, Tribal Trouble 2 is free to play, but there is also a commercial side of the story. So, let's take a look at how it's done.

Oddies and points

Tribal Trouble 2 is free to play, but extra units, buildings, special skills and avatar clothing must be bought from the Shop with oddies and points. Oddies are purchased from money in the bank, while points are mostly earned by completing quests or winning multi-player games. The bank will also allow you to exchange oddies for more points.



Get more oddies and points

In the bank, you can stock up on oddies and points to spend in the shop. For example:

Buy 20 oddies: \$4.95

Buy points

You can exchange your oddies for more points, should you need them - press the 'Buy points' button to sell 1 oddie for 100 points.

The game is still in beta development, but, as open-source fans, we are used to this.

We had e-mail contact with the developers to see how they feel about open source. To our surprise they run Ubuntu desktops and one Mac in their office! Here is the answer we received:

"Thanks for your interest in Tribal Trouble 2. You can find answers for your questions below, but first I would ask you to make sure your review reflects that it is more of a preview of the beta



version, since there will be a lot of major changes and additions to the game before we remove the beta tag."

When, and who, started development of this game, how was it written, did you use some form of open source software?

"Tribal Trouble 2, like the original Tribal Trouble, has been developed in-house by Oddlabs with graphics and audio outsourced. We did an IRC interview with GameDev.net a while back, which you might find useful if

you want more background details on us. Tribal Trouble 2 development started roughly a year ago, where we started porting the original game to our new on-line platform."

Until what stage of the game is it free to play? Will this change after the beta versions? I noticed there is a bank to buy oddies. Very important point for my spoiled open source readers.

"In order to understand how Tribal Trouble 2 can be called 'free to play', you need to understand the currency model. Tribal Trouble has 2 currencies: Oddies and points. Oddies can be bought for real money in the bank. Points are earned by completing quests and playing multi player matches. If you wish to buy a new warrior or a bigger ship to be able to reach more quests, you buy it with these two currencies, so if the price includes Oddies, it will cost real



money. However, we intend to expand the bank so players can trade with each other, so if someone who doesn't mind spending money has bought a lot of Oddies, he can sell them to some other player who has a lot of points. This way, someone who doesn't want to pay can put a lot of time into the game to earn enough points to buy Oddies from another player."

It works fine on the Linux platform, is oddlabs planning to make more games?

"We have no plans at this moment since we are focusing on Tribal Trouble 2 right now, but we have lots of ideas for future projects."

Can you tell a little more about the original game, and if it will be available in shops around the world? For example: it's not in any shop in the Netherlands, and buying the original game is impossible without any form of credit card.

"The original game was



available in stores in Germany and Denmark. We are no longer putting any effort into retail distribution, so I don't expect it to become available in stores in the Netherlands."

Any other points of interest that you can think off? With friendly greetings from the Netherlands, from an Ubuntu desktop, on which the kids test your game at this moment.

"Since you are writing for an Open

Source audience, I could add that we ourselves are big Open Source fans. Almost all of our development software is open source. The game has been developed primarily on Linux machines with only one developer using Mac OS X, and Windows only being booted for tests. And like you, I'm writing this email on my Ubuntu desktop."



MOTU INTERVIEW

Taken from behindmotu.wordpress.com

NICOLAS VALCARCEL

Behind MOTU is a site featuring interviews with those known as 'Masters of the Universe' (MOTU). They are the volunteer army of package maintainers who look after the Universe and Multiverse software repositories.



Age: 24

Location: Lima - Perú

IRC Nick: nxvl

How long have you used Linux, and what was your first distro?

4 or 5 years ago, I started with RedHat. I tried it for a few months, then I started testing a lot of distros (Gentoo, Fedora, Conectiva, Mandrake), and finally found Debian, which I used for

almost a year until Ubuntu shows up. Then I switched and never left the distro.

How long have you been using Ubuntu?

Since Warty Warthog.

When did you get involved with the MOTU team, and how?

Almost a year ago. I always wanted to contribute back to the FOSS Community doing some developments, and, since I was an Ubuntu user, one day I came into the web page, then saw the "Get involved" link, clicked on it, and that was the point of no return. I started doing some merges on the early Hardy release cycle, and then got involved on the server team, where I've been doing most of my work lately.

What helped you learn

packaging and how Ubuntu teams work?

I started reading the packaging guide. Recipes was also a good help, but the key to my learning process was the MOTU community - I find a lot of lovely and helpful people that were always there to answer my questions; my lovely sponsors, who, with a lot of patience, checked my patches and pointed out my errors and/or best practices on how to solve things. There is where I really learned about the Ubuntu work.

What's your favorite part of working with the MOTU?

That it's a huggy community!! All the people involved are helpful, lovely, and don't hesitate in showing their love. They also can point out your



errors in a really polite way, but they will also tell you when you do good work, and I find that awesome.

Any advice for people wanting to help out MOTU?

Jump in now! “I will do it tomorrow” is a lie. If you want to start helping, start now, why wait until tomorrow? You will find a lot of helpful people who can guide you on your process. I swear it would be an awesome experience.

Are you involved with any local Linux/Ubuntu groups?

Yes! I’m part of the Peruvian LoCo Council where I try to get more people involved on the Ubuntu development; giving some talks in local conferences when I can.

What are you going to focus on in Intrepid?

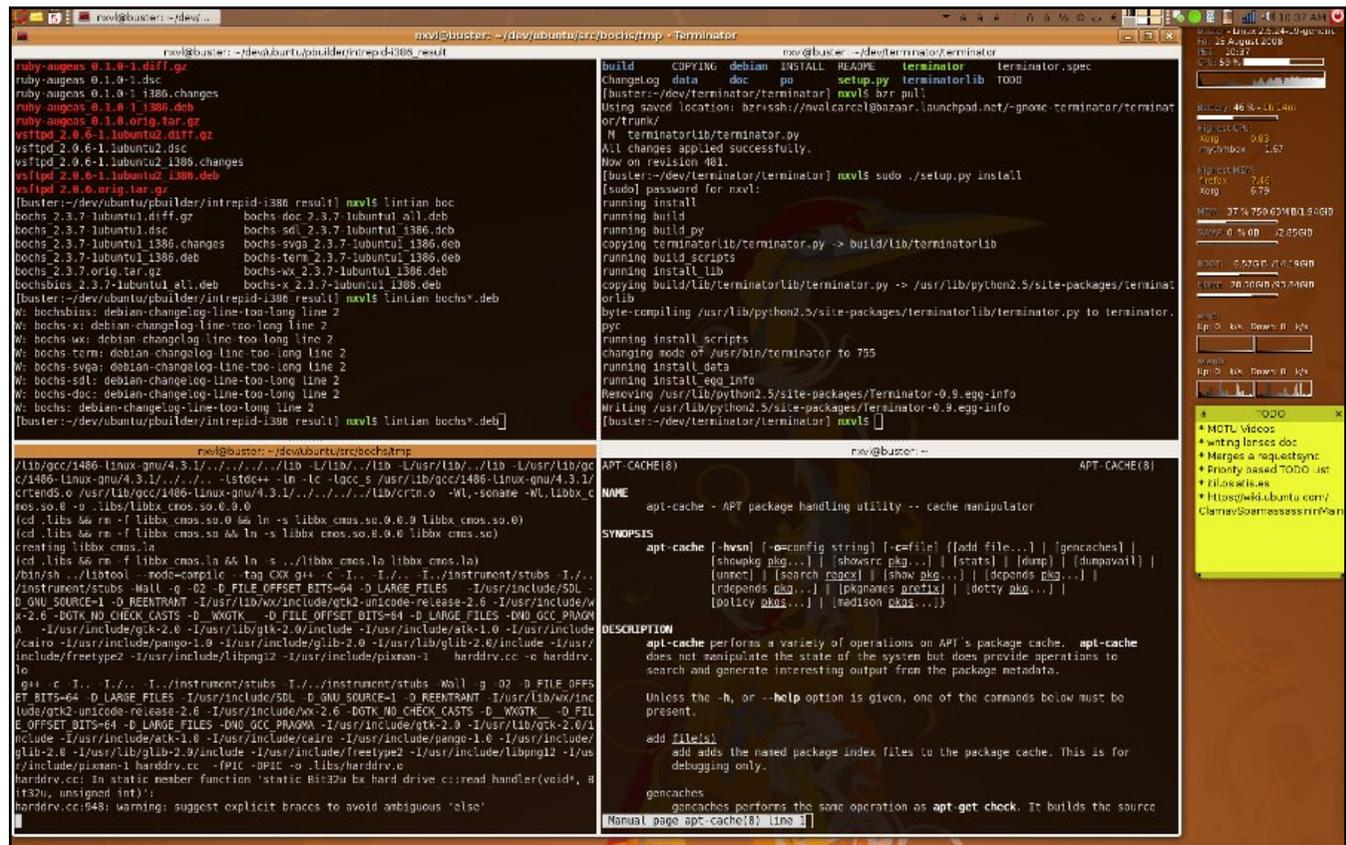
I’ve been working on Server Usability, namely easier ways to manage your servers, since there is a big barrier for Windows sysadmins to switch to Linux. But, as it is hard work (and actually a lot), and I don’t have the free

time I hoped for, it won’t be ready for Intrepid, but we already have some of the pieces getting into shape!

What do you do in your other spare time?

Spare time? What’s that? I actually work at PriceWaterhouseCoopers as an intern (I used to be senior consultant in the past on a full time

job). I’m also finishing at university, and have a wonderful girlfriend who takes almost all of my free time. I also love to hang out with my friends, having some beers and stuff, and, on Summers, I love to go to the beach and surf when I can, but there is not a lot of other spare time for me now!





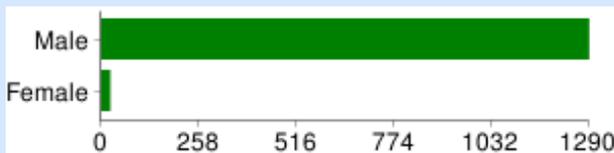
FCM#20 SURVEY RESULTS

Written by: Ronnie Tucker

As a break in our normal transmission, I thought that rather than have a letters page this month, I'd show - and discuss - the FCM#20 survey results, and also answer some of the questions asked in the comments.

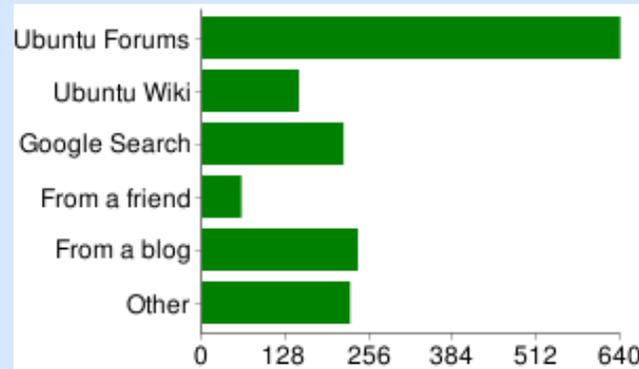
I also want to take this opportunity to thank the many people (1,000+) who took the time to take the survey and give us some highly detailed ideas and viewpoints. From this survey I've drawn up a list of ways in which the non-professionals can contribute to FCM, but I'll come to that later.

Gender:



Male	1289	98%
Female	24	2%

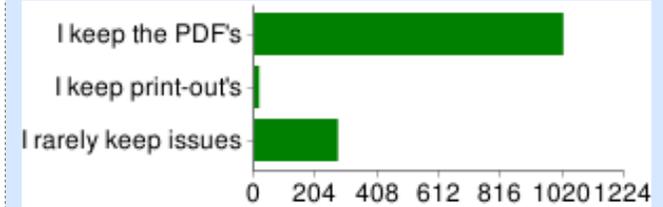
How Did You Hear About Full Circle?



Ubuntu Forums	639	49%
Ubuntu Wiki	148	11%
Google Search	216	16%
From a friend	60	5%
From a blog	238	18%
Other	226	17%

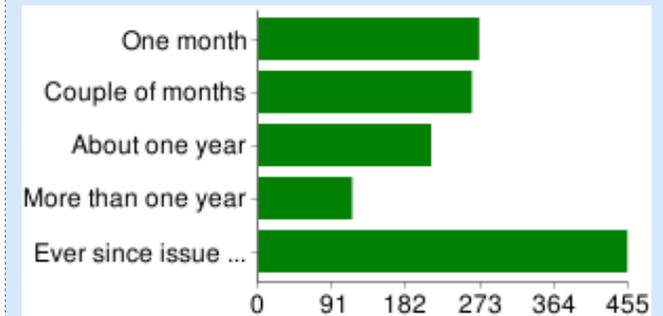
PLEASE NOTE: some questions were 'select all that apply', so some answers may total more than 100%

Do you keep your copies of Full Circle?



I keep the PDF's	1021	78%
I keep print-outs's	16	1%
I rarely keep issues	276	21%

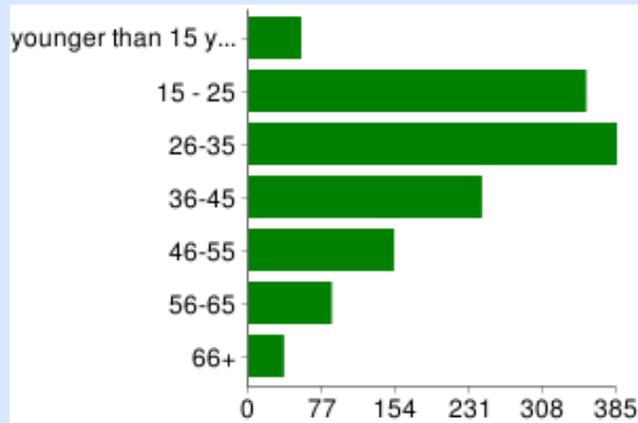
How long have you been reading Full Circle?



One month	271	21%
Couple of months	262	20%
About one year	212	16%
More than one year	115	9%
...since issue #01!	453	35%

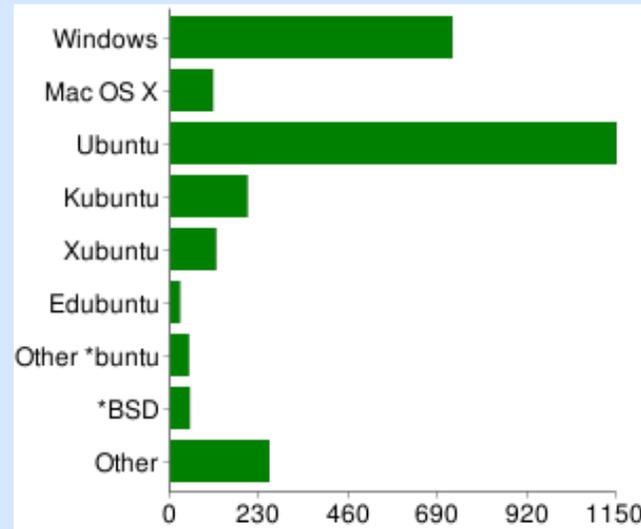


How old are you?



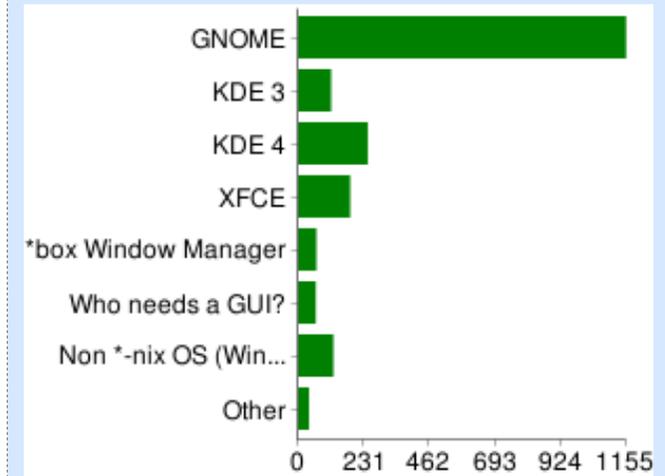
< 15 yrs old	55	4%
15 - 25	353	27%
26-35	385	29%
36-45	244	19%
46-55	152	12%
56-65	87	7%
66+	37	3%

Which Operating System(s) do you use?



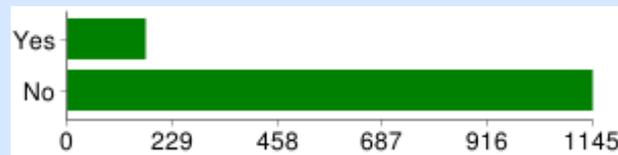
Windows	727	55%
Mac OS X	110	8%
Ubuntu	1150	88%
Kubuntu	199	15%
Xubuntu	118	9%
Edubuntu	25	2%
Other *buntu	48	4%
*BSD	50	4%
Other	255	19%

If Linux, which desktop environment(s) do you use?



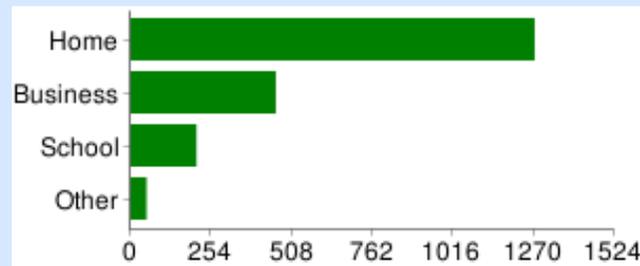
GNOME	1153	88%
KDE 3	115	9%
KDE 4	244	19%
XFCE	182	14%
*box WM	63	5%
No GUI?	61	5%
Non *-nix OS (Windows, Mac, etc)	123	9%
Other	37	3%

Do you print out, then read, Full Circle



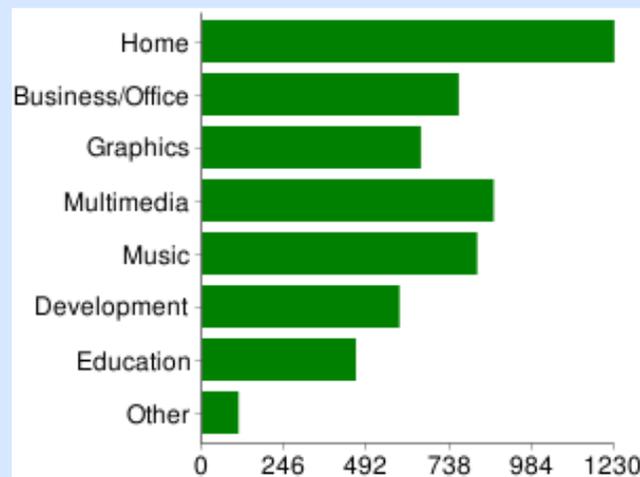
Yes	170	13%
No	1143	87%

Where do you use Linux?



Home	1271	97%
Business	456	35%
School	207	16%
Other	50	4%

What do you use Linux for?



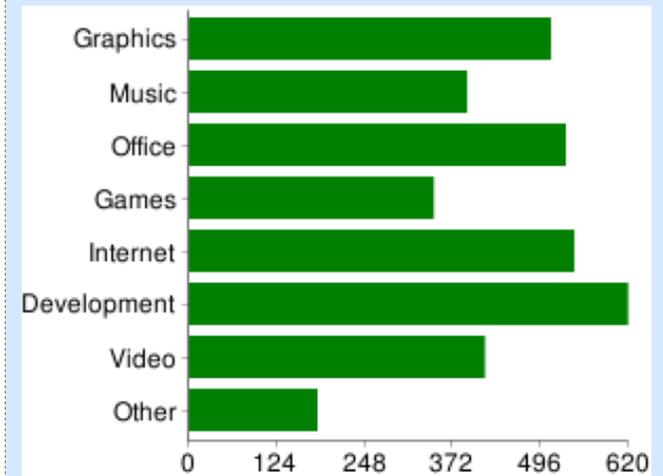
Home	1229	94%
Business/Office	765	58%
Graphics	652	50%
Multimedia	869	66%
Music	820	62%
Development	588	45%
Education	458	35%
Other	108	8%

What are your favorite sections



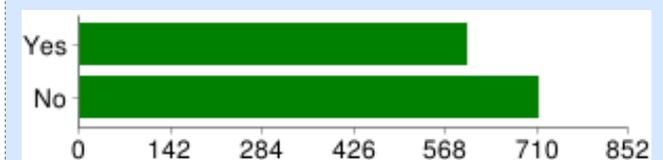
News	830	63%
Command and Conq.	602	46%
My Story	382	29%
My Opinion	263	20%
Reviews	769	59%
Interviews	350	27%
Letters	371	28%
Ubuntu Women	140	11%
Ubuntu Games	423	32%
Q & A	618	47%
My Desktop	506	39%
Top 5	450	34%
Other	125	10%

What should we cover more of?



Graphics	510	39%
Music	392	30%
Office	531	40%
Games	345	26%
Internet	543	41%
Development	619	47%
Video	417	32%
Other	181	14%

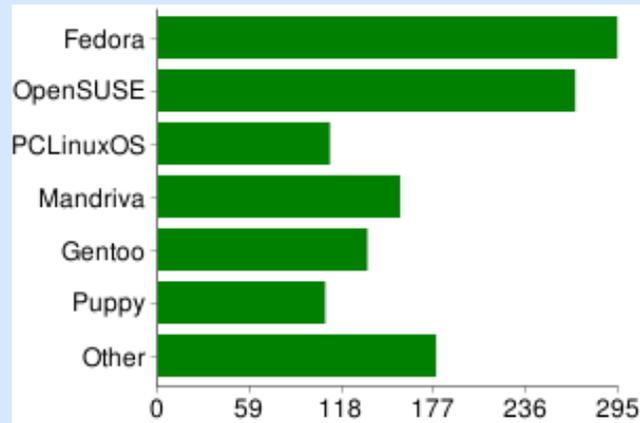
Would you like to see other distros covered?



Yes	601	46%
No	712	54%

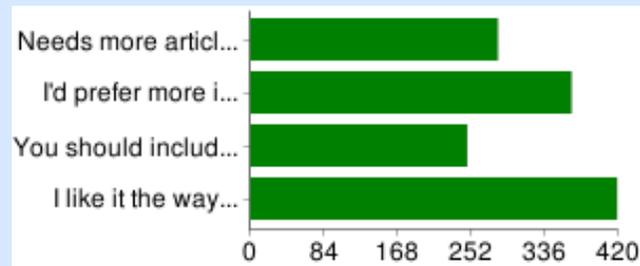


If yes, which distros should we cover?



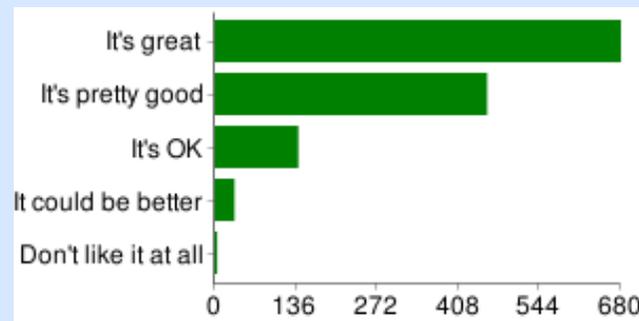
Fedora	294	51%
OpenSUSE	267	46%
PCLinuxOS	110	19%
Mandriva	155	27%
Gentoo	134	23%
Puppy	107	18%
Other	178	31%

What about the level of articles offered in Full Circle?



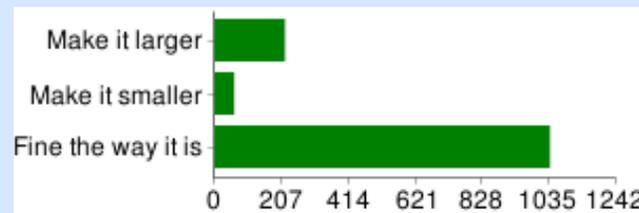
more articles for beginners	282	21%
more intermediate articles	366	28%
...more advanced articles	247	19%
I like it the way it is...	418	32%

How do you rate the current design?



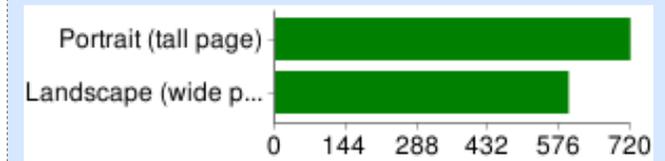
It's great	680	52%
It's pretty good	456	35%
It's OK	140	11%
It could be better	33	3%
Don't like it at all	4	0%

What do you think of the font size in Full Circle?



Make it larger	217	17%
Make it smaller	60	5%
Fine the way it is	1036	79%

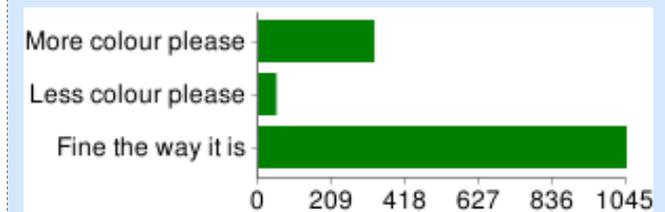
And which orientation do you prefer?



Portrait (tall page)	719	55%
Landscape (wide page)	594	45%

NOTE: This result is probably wrong since many commented that they liked how the portrait view filled the full screen. Only landscape mode would fill the screen...

Should Full Circle be more colorful?



More color please	302	23%
Less color please	47	4%
Fine the way it is	964	73%

... so there we have it. The masses have spoken. We stay as an Ubuntu magazine, in landscape page format and,



thankfully, there is no need for a radical design change. But there were other questions too:

Do you contribute to Full Circle?

Answers (or should I say excuses? Just kidding!) ranged from 'I don't know enough English' to 'I don't know enough about Linux'. All these are valid excuses, but not acceptable. I thought I'd spend some time to dispel these myths:

Not Enough English

If English is not your native tongue, but you do know English, then you could help our many translation teams, or start a translation team in your language. All the information you need is on the wiki page: <https://wiki.ubuntu.com/UbuntuMagazine/TranslateFullCircle>. There you'll find all the files for previous issues, and links to raw text, which will, we hope, make translations easier.

We have a small team of proof-readers who read through each article before it is used in Full Circle, so don't think your rough

English will be shown in Full Circle. Our proof-readers will read through your article and fix any grammar/spelling mistakes. Should they have any questions about an article, they forward them to me, and I email the writer to clarify things.

Not Enough Experience

Although I'm the Editor of Full Circle, I'm nowhere near an expert in Linux. If I can write about Linux, anyone can do it! Here are some ways in which you can help Full Circle:

- **News** is always important to people, so become a Full Circle roving reporter and email us links to any Linux news you find. Email some news (with source URL) to: news@fullcirclemagazine.org
- **Stories** about ordinary people. You obviously use/like Linux, so tell us how you came to use Ubuntu. Did Windows bore you? Make you angry? Were you drawn by the glitter of Compiz? Email your story to: misc@fullcirclemagazine.org
- **Opinions** cause discussion, and that's what we want. Does Linux make you happy? Does it make you

angry? Is it going in the wrong direction? Tell us your opinion, and feel free to reply to other person's opinions. Email your opinions to:

misc@fullcirclemagazine.org

- **Review** whatever you use. It doesn't have to be the latest and greatest hardware. Whatever you are using now, review it. Whether it's an old laptop running Ubuntu, or a top of the range game rig, tell us what's in it, and what it's running. Whatever applications you are using, review them. Tell us what you like/dislike about the application. Same with games, and even books too. Email reviews to: reviews@fullcirclemagazine.org
- **Compare** applications/games. We've all done it, searched high and low for the perfect app, and found it only after trying several lesser apps. So, review them all! Write brief reviews of each application/game, and then, at the end, tell us the winner, and why you chose it as the winner. Email comparisons to: reviews@fullcirclemagazine.org



- **Letters** know. I apologise for that joke, but even just emailing us a letter keeps us informed of what you think, and what you want to see. Again, this is another way of sparking debate. Send your letters to:

letters@fullcirclemagazine.org

- **Desktop** screens. A lot of people like the My Desktop section. The more desktop screens we get, the more we can show! Don't forget to tell us how you got that desktop though.

Email your screenshots to:
misc@fullcirclemagazine.org

- **Questions** need answers. And that's where our Q&A comes in handy. OK, there are a million-and-one forums out there, and Google can give you an answer at the drop of a hat, but emailing a question to us means that thousands of readers can read the answer. Email your questions to:
questions@fullcirclemagazine.org

- **How-To** articles are probably the backbone of Full Circle, and we're always on the hunt for more. If you tinker with Blender, or you use OpenOffice a lot, then

think of creating a series of articles showing how you finish a project. Better to start off easy and teach the basics, and increase the difficulty as the series goes on. People love to learn, so please do think of starting a series. Run your idea by me (Ronnie) at: ronnie@fullcirclemagazine.org. I've created a short list of ideas on a wiki page at:

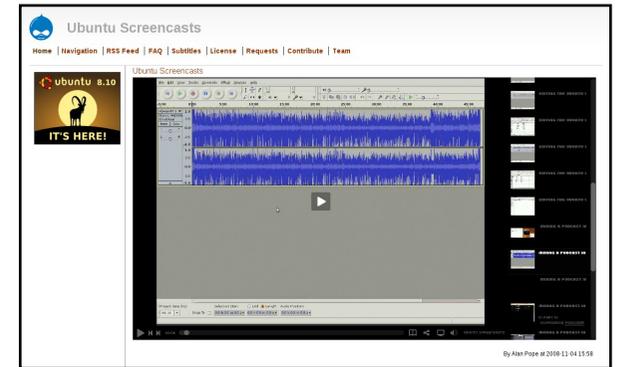
<http://url.fullcirclemagazine.org/798f84>

What suggestions do you have for Full Circle?

There were a few things in the suggestions which I thought I'd answer while I had the chance, so here goes:

Have a section devoted to promoting Linux (or a migration 'kit'). People could design banners etc...

It's already been done. You can find presentations (<https://wiki.ubuntu.com/Presentations>), screencasts (right) (<http://screencasts.ubuntu.com>), themes and CD/DVD covers (<https://wiki.ubuntu.com/Artwork/Incoming>), and there's even the Ubuntu



training material
(<https://wiki.ubuntu.com/Training>)

Publish series' in to a single volume.

We're definitely working on this. No, seriously. One problem is that the resulting PDF (for one series) is in the region of 40Mb, which is ridiculous. This is to do with (so I'm told) the fact that each page has to store a ton of information thus ramping up the final file size.

Release Full Circle in (insert language here).

Sorry, we create only the English Full Circle, but the files are available for others to come along and do translations. If



you'd like to help in translation, have a look at:

<https://wiki.ubuntu.com/UbuntuMagazine/TranslateFullCircle>. And no, we will not use BabelFish (as someone suggested), as the resulting translation would, no doubt, be unintelligible!

Have a master index, so we know what's in past issues.

We've been doing that for months (above right) over at: <https://wiki.ubuntu.com/UbuntuMagazine/FullIssueIndex>

Include a page/supplement which has information on bugs/updates/security fixes...

The Ubuntu Weekly News covers most of that: <https://wiki.ubuntu.com/UbuntuWeeklyNewsletter/>

More pages!

More articles means more pages, so get writing!

Release more often!

That's crazy talk!

Letters		p.40
Q and A	Robert Clipsham	p.42
My Desktop	Dan Cartis / Doug	p.43
Top 5 Disk Usage Analyzers	Andrew Min	p.44
Issue 13		
News	News Team	p.04
Flavour of the Month: Ubuntu 8.04 Hardy Heron	Robert Clipsham	p.06
How-To:		
Organise an Ubuntu Demo Day	Dianne Reuby	p.08
Nepalese Hardy Heron Party	Bibek Shrestha, Bikal KC, Jwalanta Shre	p.11
Server Series - Part 5: backups and webmin	Daniel Lamb	p.14
GIMP - Part 2: color correction	Ronnie Tucker	p.16
TV Feast For Ubuntu	Johnny McCullagh	p.20
Automatic Backup via Email	Stephen Bant	p.22
My Opinion: What is Web 2.0	Robin Catling	p.27
My Story: My Journey to Kubuntu	David Self	p.29
Review: HP Photosmart C3180	Ronnie Tucker	p.22
Interview: Luca Falavigna	Behind MOTU	p.32
Ubuntu Women: setting and meeting goals	Emma Jane Hogbin	p.34
Ubuntu Youth: the Hardy upgrade	Andrew Harris	p.35
Letters		p.36
Q&A	Robert Clipsham	p.38
My Desktop	Dave Slaughter / Igor Nikiforov	p.39
Top 5: Unusual Consoles	Andrew Min	p.40
Issue 14		
News	News Team	p.04
Command and Conquer: What Not To Type & Man Pages	Robert Clinsham	p.06

Create an HTML version of Full Circle

It takes a team of about twelve to bring you the PDF each month, to also have an HTML version would mean another dozen people to create a nice HTML layout each month. Volunteers?

Have a definite release date.

We already do, it's the last Friday of each month. We've been doing that for about a year now. *Pay attention people!*

I hope this has answered most of your questions. If not, feel free to email me (Ronnie) at: ronnie@fullcirclemagazine.org.



UBUNTU GAMES

Written by Edward Hewitt

GAME NEWS

- **Savage 2** (below) is now free! You can now download this role-playing game for free.



- **Myst Online** (below) is now open source! You can now download and play this MMORPG for free, and it's open-source!



This month, I am reviewing one of my favourite PC games. Defcon is a cross platform RTS from UK developers, Introversion Software. The game is based around nuclear warfare. You select a nation, and fight in a nuclear war with up to 6 nations. The game is based on the film War Games. The game features both single players and multiplayer, but they are the same - except you will face AI-controlled nations, or real people controlling the nations. The game is not free: the full game costs £10/\$19.50. However, the demo gives you a good idea what the game is about.

As soon as you start the game, you get a sense of bad times. The vector graphics represent a 1980's military computer, and the music of people slowly dying. As I have already said, you have the choice of a single or multiplayer match. They are both the same, but in single player you can have from 2 to 5 bots in your match, whereas in multiplayer you can have up to 6 players. You select a "nation",

which includes Europe, North America, South America, USSR, Asia, and Africa. A match takes about 45 minutes to 1 hour to complete, but there are also several game types, such as Speed Defcon (15 min. match), Office mode (6 hour match) and Diplomacy mode (everyone is in the same alliance, until someone attacks). However, in the demo you can play only standard Defcon.

In a match, you are presented with a world map showing all the nations and cities within. The match is separated into 5 parts. In Defcon 5 & 4, you begin by placing your units. You have 3 types of buildings, and 3 types of units to place, during this time. The buildings are Radar (to see where missiles and other units are), Silos (to defend and attack nations), and Airfield (for launching fighters and bombers). The units are Submarines (for launching missiles), battleships (for destroying other ships), and Aircraft carriers (for launching fighters and bombers). Once all your units are placed, you can



move your units into position. When you reach Defcon 3 & 2 you can now start naval and air attacks. Finally, you will reach the best part of the game, Defcon 1, Nuclear warfare. Select your silos for attack, move subs into position, and launch your nukes at the cities in the enemy's nation.

It may seem simple enough, but it's all about chance, and where and when your enemies will launch their nukes. You may lose your entire fleet before Defcon 1, which can have a bad effect during Defcon 1. You may launch your nukes too soon, then you're wide open for attacks. When your silos are launching their nukes, they can not defend at the same time. You may launch your nukes too late, when your enemy's defences are strong, or you may run out of time. You may even be attacked by people in your own alliance. Anything could happen. No game is the same. This means there is no winning strategy which works every time. There are no winners in nuclear warfare; Defcon follows this belief. In order to "win", it's not about

how many people you killed, it's about losing the least.

Defcon is an excellent RTS, best played online. It is simple and easy to pick up, but can be hard to find ways to win. Once you think you have cracked it, you probably haven't. The style and look of the game is everything, but it is worth trying the demo. The demo is a good way to experience both offline and online matches. The game is for Linux, but also Windows and Mac. All three operating systems can play together, so get your Windows and Mac friends to play. You can download Defcon from www.introversion.co.uk/defcon. The file is a .tar.gz file, but it's just a few lib files and a shell script which you run in the terminal -- no need to install. Defcon works perfectly on Ubuntu 7.10, 8.04 and 8.10 (haven't tried it on any other Ubuntu versions).



System Requirements

*Pentium 3 Processor, 600 MHz
128 MiB RAM
GeForce2 video card
60 MiB HD
internet connection (for
multiplayer games)*



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 Tommy Alsemgeest

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

Q I used to program in C# and Java. What are the popular languages used in GNU/Linux to write applications - both front-end design, and back-end?

A The Linux kernel is mostly written in C, but it is certainly not the easiest to learn. Python is very popular, is easy to learn, has support out of the box in Ubuntu, and does not need to be compiled. Once you have a grip on Python, you can move to PyGTK and begin making GUI programs.

Q Is there a news group for Ubuntu discussions?

A There was a newsgroup for Ubuntu, but it has since been closed. Instead, we use mailing lists: <https://lists.ubuntu.com>, forums: <http://ubuntuforums.org>, and IRC: <https://help.ubuntu.com/community/InternetRelayChat>. The instant

messaging client Pidgin (which comes with Ubuntu) can also do IRC (shown below).

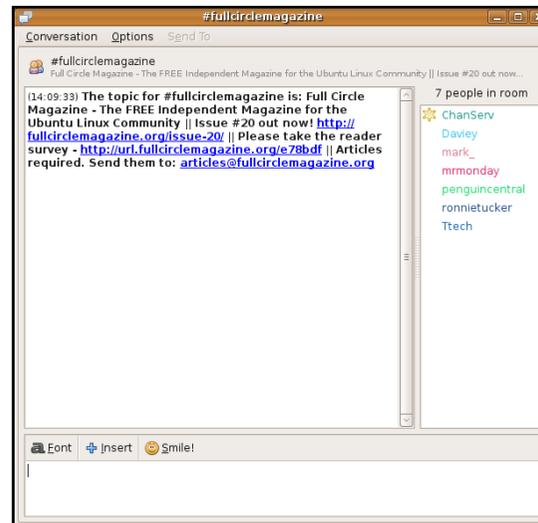
Q Is it possible to do an in-place upgrade from ext3 to ext4 without losing any data? I would obviously backup my data before attempting it, but it would be a nice feature to upgrade without repartitioning.

A The only way to upgrade to EXT4 without losing data is to copy all your data to another partition or hard drive first. Since the upgrade completely rearranges the

way the data is arranged on your disk, there is no way to leave the data intact. Also, it is best to wait for Ubuntu 9.04 (Jaunty Jackalope), which will have support for EXT4.

Q I have a problem with installing themes; most themes from ubuntu-art.com (and others) do not work for me. All I get is: "name of theme - does not appear to be a valid theme". Why am I getting this?

A Some themes stick the theme archive into another archive, so try to extract it. If it leaves you with a bunch of folders, leave the archive as it is. If it contains another tar.gz archive, try installing that. Also gnome-look.org is a very good site for themes, and most of them work straight away.





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.



Allow me to present Blubuntu, my Blue Ubuntu desktop.

I use a customized Clearlooks desktop theme with glossy window border and the standard Human icons. For the wallpaper I use Hardy Blue from www.gnome-look.org. The calendar is Rainlendar2 Lite. I've used Ubuntu since Feisty Fawn. Now, I am using Ubuntu Hardy Heron, running on my HP 520 Notebook PC, Intel Core Duo T2300 @ 1.66 GHz processor, 1 GB RAM, 80 GB hard drive, and Intel 945GM chipset motherboard.

Adhi Praselia

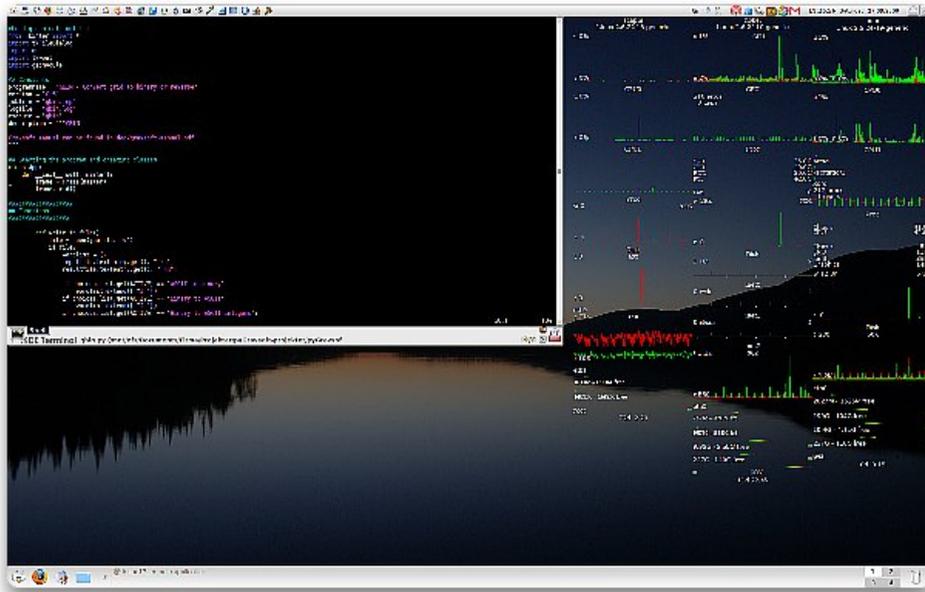


My computer is a Dell Inspiron 1521 laptop. It has a resolution of 1400 x 900, a 120 GB 7200 rpm hard drive, and 1 GB of RAM. I currently dual boot Windows Vista and Ubuntu 8.04, along with an Ubuntu 8.10 Alpha 6 virtual machine. All modified themes and icons are from art.gnome.org and the background is from www.wallpaperstock.net. Specifically, the icon set is called Gorilla, and the window border and controls are both NewWave. The top panel transparency has been reduced to about 25%, and the bottom to 0%.

Nick Ellery



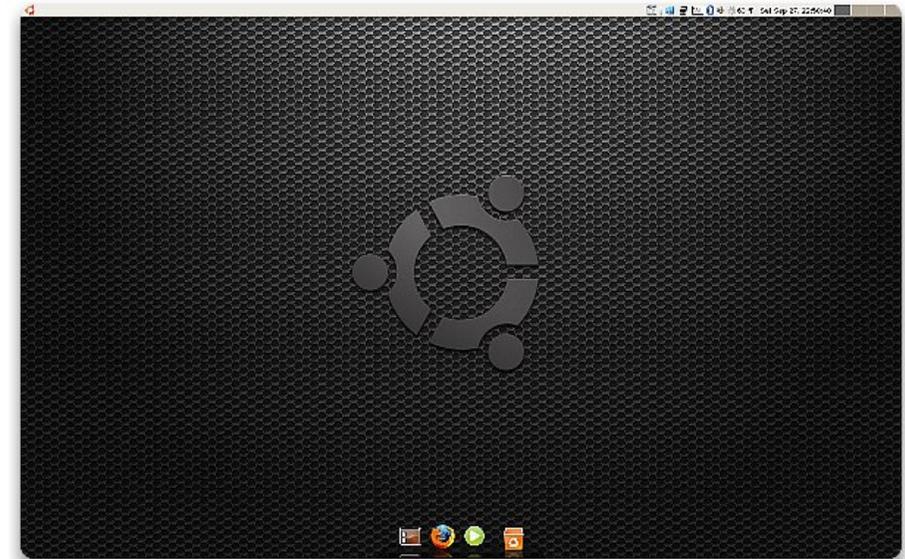
MY DESKTOP



I have been using Linux since 2001, when I saw it for the first time on the computers at my university. My first experience was with Mandrake (Mandriva), but, after trying several other distributions throughout the years, I settled with Ubuntu - mainly because of the quick release cycle and great forums.

Having previously used Linux changed my preferences away from a GUI to a text-based interface. My desktop reflects this, and I have three gkrellm sessions running to monitor my own computers and two servers through ssh tunnels - in addition to a drop-down console, Yakuake. The gkrellm sessions might appear to be useless James Bond bling, but they actually give good visual insight to the systems. The drop-down console keeps my desktop free of clutter.

Thomas Jansson



I have been using Ubuntu for almost a year now, and I'm loving it. I started out with 32-bit Gutsy and now I'm running 64-bit Hardy. My desktop is customized from the Human Clearlooks theme. I am also using the GIT version of Compiz Fusion, the stable release of GNOME Do, and AWN. Also, I took the Linux Mint menu from their repository, installed it, and substituted the icon with an Ubuntu logo. My computer is an out-of-the-box HP with 2 GB of memory, 350 GB hard drive, dual core AMD64 2.3 GHz processor, and a 20-inch monitor set at 1680 x 1050. The application running in the screenshot is Exaile media player (and yes, it has been rotated with the Compiz Fusion GIT plugin: freewins).

Kevin Durbin



2 1 3

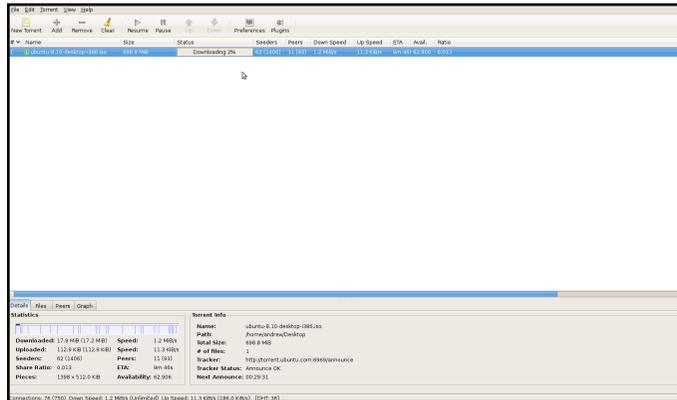
TORRENT TOOLS

Written by Andrew Min

Deluge

<http://deluge-torrent.org/>

This Python-based client has it all: A beautiful GTK+ interface, a configuration wizard, proxy support, and all the encryption



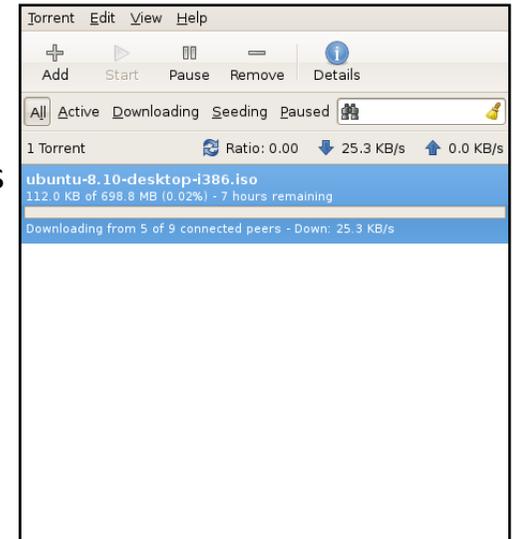
you need to get started. But the real power comes from the plug-in support. There are dozens of plug-ins, ranging from a simple libtorrent logger to a powerful web interface. The client is light enough to give you speed on sluggish computers and the plug-in architecture is perfect for power users like myself who need all the features available.

To install Deluge, use the ``deluge-torrent`` package in the ``universe`` repository.

Transmission

<http://www.transmissionbt.com/>

If you don't like Deluge but still like GTK+ apps, try Transmission. While the interface isn't quite as pretty, it's every bit as lightweight and (if possible!) even simpler than Deluge. It's also cross-platform, so if you want one consistent interface across platforms, Transmission is a great option. Like Deluge, it supports a web interface, proxy support, folder watching, and all the encryption you may need. What really sets it apart is its excellent CLI (Command Line Interface).



Transmission is pre-installed on Ubuntu. If you need to install it on a Kubuntu or Xubuntu computer, though, you can use the package ``transmission``. You can also just install the GUI or CLI versions with ``transmission-gui`` and ``transmission-cli``.



Vuze (formerly Azureus)



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

Vuze, formerly known by the better-known name of Azureus, is a powerful Java-based torrent client. Begun back in 2003, Azureus' powerful interface became popular with all the platforms. It supports standard features, plus a torrent search (powered by the Vuze.com site, HD user-created video, proxies (including onion proxies like Tor) and a whole Vuze.com social network. Though the core client is still open source, it has come under some heavy fire for moving other parts of the project away from the GPL.

To install Vuze, use the ``vuze`` package in the ``universe`` repository.

KTorrent



<http://ktorrent.org/>

If you're a KDE user who dislikes GTK+ or Java, KTorrent is a great option. This app supports all the normal encryption and proxy, not to mention the basic downloading features most other torrent clients have. What really makes it stand out is its powerful KDE integration, from the Plasma widget to the amazing KDE 4 interface. It also sports multiple plug-ins, including RSS/Atom downloading, a web interface, download order for multi-file torrents, and much more.

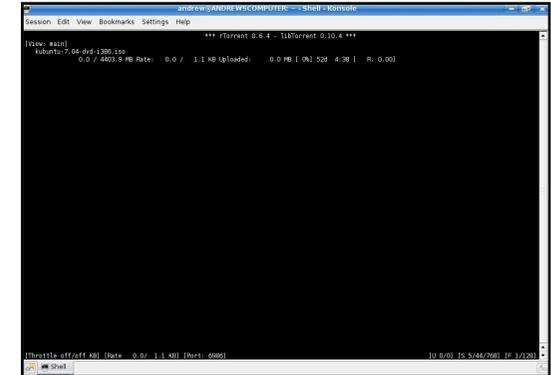
KTorrent is pre-installed on Kubuntu. Other distributions can install it using the ``ktorrent`` package in the ``universe`` repository.



Andrew Min has been a Linux addict since he first installed openSuSE in VMWare. Learn more about him at

<http://www.andrewmin.com/>

rTorrent



<http://libtorrent.rakshasa.no/>

rTorrent is a terminal-based client with a surprising number of features, including keyboard shortcuts, queuing, sessions, pausing and resuming, encryption, and much more. It's also blazingly fast and requires only about 1.6MB of space. Compared to Azureus' 12.9MB, it's quite a bargain. There are also tons of GUI clients for it, including nTorrent (Java-based), wTorrent (wxWidgets-based), and rtGui and rTWi (web-based).

To install rTorrent, just use the ``rtorrent`` package in the ``universe`` repository. At the time of this writing, none of the clients had made it into the Ubuntu repository.



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