ubuntu
kubuntu
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REVIEW :
WIKI ON A STICK
INTERVIEW :
TRAVIS WATKINS

HOW TO :
DEB FILES
UBUNTU DISK USAGE
BACKUP WITH PARTIMAGE
CREATE YOUR OWN SERVER 4

FLAVOR OF THE MONTH :
WE LOOK AT HOW UBUNTU AND
KUBUNTU HAVE MATURED

FIRST BIRTHDAY ISSUE

FULL CIRCLE MAGAZINE IS ONE YEAR OLD!

I AM
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ONE YEAR ON

THE STORY OF FULL CIRCLE
## MAGAZINE FROM DAY ONE

NEW SERIES

USING GIMP – PART 1
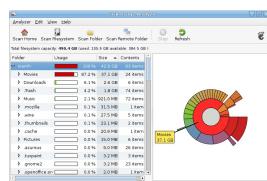
full circle

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EDITORIAL

Welcome to another issue of Full Circle Magazine.

By the time you read this, Ubuntu 8.04 (Hardy Heron) will have been released. May your upgrade go smoothly. I'm a Kubuntu guy, but since my current install is 7.10 with added KDE 4 goodness, I may just do a fresh install. But, we'll see.

This month sees the start of another new series. Due to public demand for GIMP articles, I've created 'Using GIMP'. It will cover the basics (this month) through to the more important things, such as layers, and end with the creation of a collage which will use all the techniques learned from previous months. I hope you'll enjoy it.

Since **Full Circle** is one year old this month, I thought it would be fun to trace it back to its origins, and show how it has developed over the past year. I also included some download statistics too, which suggest that readership has fallen over the past year, it hasn't. Remember that issue #1 has had 12 months to acquire that many downloads. Moreover, some people link directly to the PDF, thus bypassing our download counter. Either way, I'm just happy to have downloads!

Enjoy the issue and keep in touch!

All the best,
Ronnie
Editor, Full Circle Magazine
ronnie@fullcirclemagazine.org

This magazine was created using :
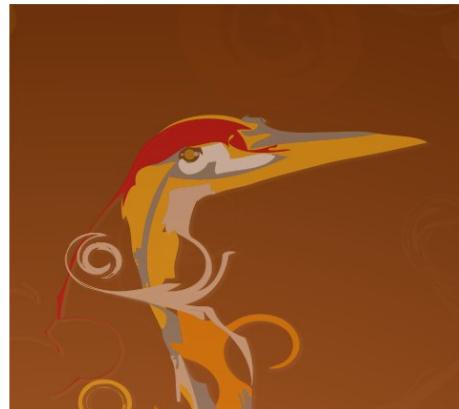
What is Ubuntu?

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 <u>not</u> pay any licensing fees. You can download, use and share Ubuntu with your friends, family, school or business for <u>absolutely nothing</u>.

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

HARDY HERON RELEASED!

The Ubuntu team is pleased to announce Ubuntu 8.04 LTS (Long-Term Support) on desktop and server, continuing Ubuntu's tradition of integrating the latest and greatest open source technologies into a high-quality, easy-to-use Linux distribution.

http://www.ubuntu.com/getubuntu

Ubuntu 8.04 LTS is also the basis for the new 8.04 release of Kubuntu:

http://kubuntu.org/news/8.04-release

8.04 brings a restructuring of Edubuntu as the Ubuntu Education Edition. The education desktop and application bundle now installs as an add-on to a standard Ubuntu desktop.

http://www.edubuntu.org/news/8.04-release

The Ubuntu 8.04 family of variants, Xubuntu, UbuntuStudio, and Mythbuntu,

are also released today:

http://www.xubuntu.org/news/hardy/release

http://ubuntustudio.org/

http://www.mythbuntu.org/

Sun looks to free up the rest of Java

Sun Microsystems is stepping up efforts to boost Java usage in Linux shops by working to remove some final encumbrances in the open-source Java platform.
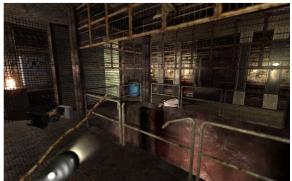
By freeing these up, Java can be fully open-source and thus be packaged more easily with Linux distributions. In conjunction with this activity, Sun is talking with Linux distributors, including OpenSuse, Ubuntu and Fedora to have them offer an updated version of OpenJDK, which constitutes the open-source Java platform. Sun plans to offer the updated OpenJDK soon and clear the last few encumbrances later.

"We're hoping to see some movement [with the] Linux distributions in the very near future, hopefully by JavaOne," said Rich Sands, group manager for developer marketing at Sun, in an interview on Tuesday. The JavaOne conference is to be held in San Francisco in two weeks.

Source: http://news.yahoo.com

Penumbra: Black Plague spreads to Mac and Linux
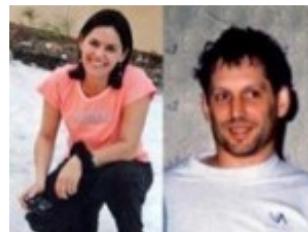
Usually the scariest part of adventuring on a Mac is the thought of simply finding a game to play. But thanks to Frictional Games, both Mac and Linux gamers can now get their chills in the playable demo of *Penumbra: Black Plague*.

The critically-acclaimed *Penumbra* games, soon to be joined by a final expansion called *Requiem*, are horror titles that rely heavily on real-world physics, allowing far more hands-on interaction with the environment than most adventures. Players assume the role of a man named Philip, who follows in the footsteps of his dead father and finds himself trapped in an underground tunnel complex in the frozen north of Greenland. Unfortunately for Philip, he's not alone, and the games also involve a certain degree of action-based elements in surviving the dangers, though far more in *Penumbra: Overture* than its sequel.

Source: www.adventuregamers.com

More: www.penumbrablackplague.com

Hans Reiser Jury Deliberates Two Days Without Verdict

The jury deliberating the Hans Reiser murder trial left the courthouse here [in Oakland, California at] about 3:15 p.m. Pacific time Thursday, its second full day of deliberations.

The panel is charged with deciding the fate of the Linux programmer, who is accused of killing his wife, Nina Reiser. The woman, who was divorcing her husband, was last seen at his house in the Oakland hills on Sept. 3, 2006. She dropped off the estranged couple's two young children to stay with their father the Labor Day weekend and has never been seen since.

The 44-year-old developer of the ReiserFS filesystem claims his wife left Oakland for Russia, where the pair met in 1998 while he was overseas hiring programmers for his Namesys software company. He claims his 31-year-old wife fled to her home country after he accused her of embezzling from Namesys.

Source: http://blog.wired.com

Microsoft extends XP life to parry Linux threat

In what is being perceived as a move to counter the threat of Linux — a free operating system — in the ultra-low-cost personal computer (ULCPC) segment, Microsoft has extended the sale of Windows XP Home by two years to original equipment manufacturers (OEMs) beyond the current deadline of June 30.

Ultra-low-cost PCs have been drawing interest from governments and schools in emerging markets like India and Asia. For instance, the low-cost Asus Eee PC alone is estimated to sell around 120,000 units in India this year.

Linux is the operating system (OS) running the current poster child for low-cost laptops like Asustek Computer's Eee PC

Source: www.business-standard.com

Full Circle Issue #11 Correction

In the HowTo on getting your iPod working with Amarok, one of the packages was listed as: *ligaguitils1-dev* it should be: ***libsgutils1-dev***

Sorry for any inconvenience!
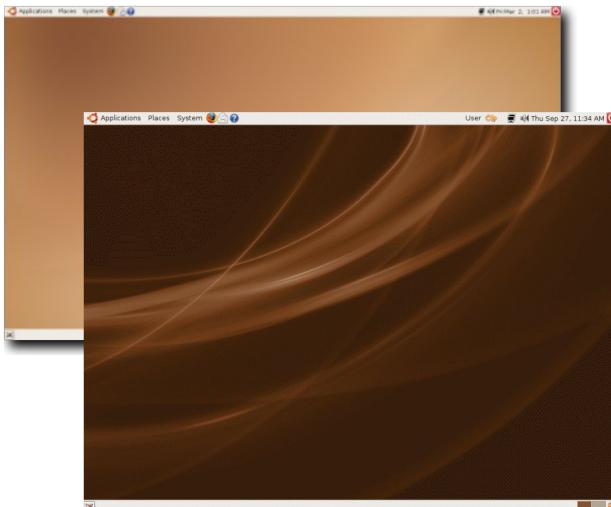
FLAVOR OF THE YEAR

Written by Robert Clipsham
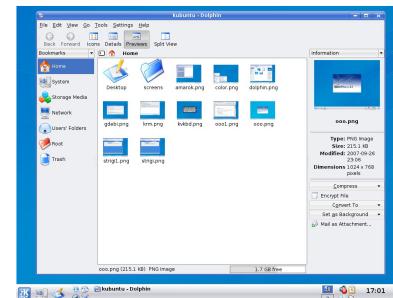
It's been a full year since Full Circle Issue #1, and Ubuntu has come a long way. In the time it has taken us to reach issue #12, Ubuntu has advanced three versions, and has improved in so many ways. This article will take a look at how the Ubuntu family has morphed from a Feisty Fawn to a Hardy Heron.

To get a feel for how far Ubuntu has come, we need to look at Feisty's main features. Feisty (7.04) introduced the Migration Assistant, allowing users to migrate their settings from Windows to Ubuntu effortlessly. It also added the first steps to easy multimedia codec installation, allowing users to effortlessly install codecs from the repositories, or even have them installed when they try to play a media file for which they don't already have the necessary codecs. It also showed the first glimpses of the Network Manager, which allows easy access to wireless networks using a tray icon, thus eliminating the need to manually edit configuration files and, in some cases, to compile drivers.
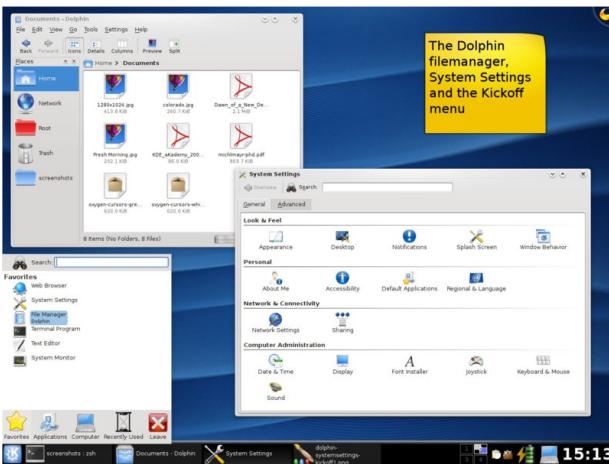
Gutsy (7.10) further improved the user experience, but caused some controversy by adding Compiz Fusion 'out of the box', but for Ubuntu only. Kubuntu users had to make do with their first glimpse of Dolphin (above), the KDE4 file manager -- only the brave would install the KDE4 Beta3. Both had one click desktop searching, fast user switching and simple addition of common Firefox plugins via the 'plugin finder' service or 'Add/Remove Applications'. Gutsy Gibbon also brought the first taste of the graphical configuration tool for X. This meant almost no manual editing of /etc/X11/xorg.conf to get your display(s) configured properly. Some other features were improved: printer setup, three-click restricted driver installation, write support for NTFS file systems, and better power management facilities.
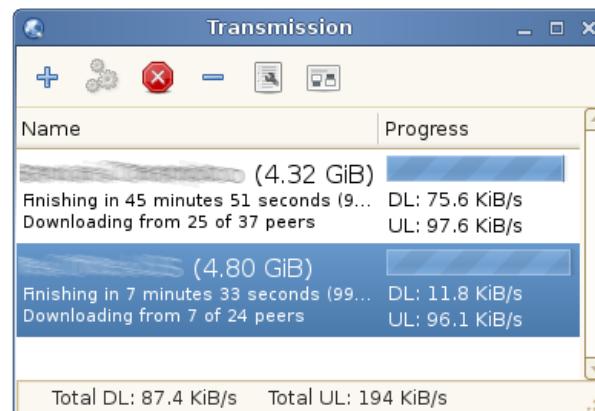
With the most recent version, 8.04, Ubuntu gets its second long term support (LTS) release.

The Dolphin filemanager, System Settings and the Kickoff menu

There is no LTS for Kubuntu 8.04, but its users will get a choice of two flavors: one with KDE 3.5.9 (now with easy enabling of Compiz Fusion) and the other, a 'remix', which will install the new KDE 4.0.2 (above). Hardy boasts a wealth of features, one of which is the new 'Bullet-Proof X' for GUI display configuration. It even includes the latest version of the popular web browser, Firefox. Firefox 3 introduces many exciting features including easy add-on installation, incredible speed, and compliance with web standards. A feature perhaps aimed at new users, but equally useful to power users, is the Windows-based installer, Wubi. If you insert the

Ubuntu (or Kubuntu) disk while running Windows, instead of the usual feature list, you'll get a list of installation options, allowing you to install without repartitioning, and letting you add or remove Ubuntu like any other Windows application. It also gives the option to reboot the computer to try out, or install Ubuntu in the way we have grown used to. Furthermore, this release brings improvements and changes to the pre-installed applications. Ubuntu now uses Transmission (below) as its new BitTorrent client, Vinagre for Virtual Network Computing (VNC), Brasero for CD/DVD burning, and Inkscape 0.46 for Scalable Vector Graphics (SVG) images. Kubuntu has updates to Ktorrent, digiKam and Amarok, and it even allows you to encrypt your entire file system. If

you're a network administrator, you will love the new Policy Kit which enables fine-tuned control over the permissions for every part of the system. This Ubuntu release also integrates Active Directory, enabling simple integration into Active Directory based networks.

So, in the year that has passed since issue #1, a lot of implemented changes have improved the speed and capabilities of the Ubuntu family. The next release will be the 'Intrepid Ibex' (8.10), and I'm sure it will bring even more improvements. The drafting of blueprints and ideas for the Ibex has just begun as, by the time you read this article, 8.04 will be available for download. Let's hope that, with the passing of another year, abounty of new features will blow us away.

Robert Clipsham is a self confessed geek, whose hobbies include: programming/scripting, chatting on IRC and not writing his articles on time.

Almost everyone knows what a .deb package is. It's the "installer" for Ubuntu, Debian, MEPIS, and many other Linux distros. In my opinion, it's the best package format out there. Unfortunately, many Linux programs don't include a .deb package. They give you only the source code, which often requires downloading a bunch of libraries you've never heard of ("dependency hell" is the term), and they often don't give you the option of uninstalling the program. However, it is much easier than you might expect to put together a .deb from scratch.

CheckInstall and Debian Package Tools FE

The easiest (and worst) way is to use a .deb packaging program called *CheckInstall* (http://asic-linux.com.mx/%7Eizto/checkinstall). It sounds great on the outside.

All you have to do is run *make* (like you usually would) to compile the source code, then run *checkinstall* to create the .deb. Unfortunately, there are several problems. First, it will not install dependencies (you can try *AutoApt* (https://help.ubuntu.com/community/AutoApt) or *AutoDeb* (https://wiki.ubuntu.com/AutoDeb), both experimental) and it will not let you declare dependencies - so it will not work for other users unless they manually install the dependencies. Therefore, to make quality packages, *CheckInstall* is the wrong way to go. If, on the other hand, you're just interested in creating basic packages without hassle, *CheckInstall* can be useful. However, I will not be covering *CheckInstall* in this article (a tutorial can be read at at: https://help.ubuntu.com/community/CheckInstall).

So, is there any other easy way to create quality packages? There's

Debian Package Tools FE (http://url.fullcirclemagazine.org/927dc1), a Qt-based app that provides a basic GUI for making packages. It's much better than *CheckInstall*, but it's still not the way to create a quality package.

Manually creating packages

The first step in manually creating a .deb package is to download the program. Next, compile it (if necessary), and install it. This usually involves running *./configure*, *make*, and *sudo make install*. Then, find out where it installed itself - open the Makefile file in a text editor, and read the install section. If you can't find it, search in the /usr/ folder.

Now, it's time to create the control file. Basically, this is the .deb description. Here's a sample control - you need to

paste it into a file called "control", without any extension:

```
Package: fungame
Version: 1.0
Section: games
Priority: optional
Architecture: i386
Essential: no
Depends: libfungame,
gamelibrary (>= 1.4.0)
Recommends: fungamesaves1 |
fungamesaves2
Suggests: optionalfungame
Installed-Size: 1024
Maintainer: Game Maker
[gamer@gamers.net]
Conflicts:
stupidfungamethatbreaksthison
e
Replaces: oldfungame
Description: A short
description of the program
.
A longer description
```

Note several things. First, you **need** to have a blank line at the end. This is **essential**. If you don't, your .deb won't work.

The fields themselves are pretty obvious. The *Package* field is the name of the package. If your package name has two words, use a hyphen (-) between them. Package names can have only lowercase letters, numbers, and (believe it or not) "+" and "-". The *Version* section is obviously the version of the program. Just make sure you DON'T include a hyphen (-). The *Section* field is a list of the categories your program fits in. This includes admin, games, gnome, kde, mail, misc, net, sound, text, utils, and web. The *Priority* section denotes what priority it is - most of the time you'll want optional. *Architecture* is the architecture the program will run on - usually i386, AMD64 or PowerPC. *Essential* is whether it's essential or not - most of the time it's not. *Depends*, *Recommends*, and *Suggests* are all similar. Depends means that your program **must** have that program, Recommends means that your program should probably have it but doesn't **need** it, and Suggests means that it would be nice to have it. You can separate the different dependencies with commas (,). If one of two programs will work, separate them with a pipe (|). You can also add a specific version in parenthesis, using << (earlier), <= (earlier or equal to), = (equal to), >= (greater than or equal to), or >> (greater than). *Installed-Size* is the size of the program in kilobytes when it is installed. *Maintainer* is you (your first name followed by your email in []). *Conflicts* shows packages that this particular package won't install next to (programs that will break your package), while *Replaces* shows which packages this program will replace. Lastly, *Description* shows your description.

Now that your control file is done, save it in a /DEBIAN folder. For example, if you're building a

package, and your working folder is ~/fungame/, you want to put your control in ~/fungame/DEBIAN/.

It's now time to add the actual program. Copy the game into your working folder. For example, if fungame is located in /usr/local/fungame/, and the binary is at /usr/bin/fungame, and your .deb folder is ~/fungame/, copy everything in /usr/local/fungame/ into ~/fungame/usr/local/fungame/, and /usr/bin/fungame into ~/fungame/usr/bin. You may also want to create a menu entry (a .desktop file), in ~/fungame/usr/share/applications/ fungame.desktop. Here's an example of a .desktop:

```
[Desktop Entry]
Type=Application
Version=1.0
Encoding=UTF-8
Name=Fun Game
Exec=fungame
Comment=
Icon=/usr/local/fungame/funga
me.png
Terminal=false
```

```
Categories=Application;Game;
StartupNotify=false
MimeType=
```

If you wish, you can omit the Icon= line.

Now, it's finally time to build your package. To do this, cd to your working folder (e.g. ~/fungame/) and, in a terminal window, run *dpkg -b directory packagename.deb*. The directory is your directory, e.g. ~/fungame/, and the packagename.deb is the name of the package that will be built. It is critical that you name your package correctly. Here's the proper naming convention: program-name_version_architecture.deb. Everything should be identical to their equivalents in the control file.

Distributing your package

Your package will get maximum attention if it's available from packages.debian.org and packages.ubuntu.com. Unfortunately, you can't just upload packages. You need to be a Debian (or Ubuntu) developer. And this is not an easy process. A long article

on the topic is at http://www.linux.com/articles/421 55. A simpler way is to get a mentor who will upload the package for you - see http://mentors.debian.net/ for more.

So, what happens if you don't want to spend a long time registering as a Debian/Ubuntu developer? If you read my Top5 column at all, you'll know that I **love** GetDeb.net. They provide 3rd party .debs, and are the ideal place for a non-Debian or non-Ubuntu programmer to post packages. You can find out how to do this at http://wiki.getdeb.net/Building_Pa ckages. Best of all, you don't need to sign up for anything except a Launchpad.net account.

Andrew Min has been a Linux addict since he first installed openSuSE in VMWare. Learn more about him at http://www.andrewmin.com/

Now that we have Samba, DHCP and Webmin installed and working, we will set up a VPN server to monitor the various running services.

Our first step is setting up a VPN (Virtual Private Network) using *PPTP* (Point-to-Point Tunnelling Protocol) provided by the poptop team. This can also be configured by *Webmin*. To start off, we will need to install the PPTP server, as follows:

```
sudo apt-get install pptpd
```

(or use your package manager and search for poptop or pptp)

When prompted, hit enter, and apt-get will install *PPTPD* and all its dependencies.

Now, activate Webmin by going to:

https://localhost:10000

Browse to *Networking*, then *PPTP VPN Server*. First we will create our PPP (Point-to-Point Protocol) accounts, so click on *Create new PPP Account*; add a new user called *user*, with a password of *password*; then click *Save* and click *Return to index*. Within the index of that module, click on *PPTP Server Options*; fill in the box *IP addresses for server end of connection* with the client end IP address; and fill in *IP addresses to allocate to clients* with the IP addresses to be assigned to the client machine coming in via the VPN. Click *Save*. Then, open *PPP Options*; change *PAP authentication* to *May be used*; change *CHAP authentication* to *Cannot be used*; change *Server name for authentication* to *Real hostname ()*; disable *MS-Chap* and *MS-Chap2*; and the rest can stay on default. Click *Save*, and click *Apply Configuration*.

We will now set up monitoring for the system. Within *Webmin*, go to *Others, System*, and *Server Status*. Click on *Schedule Monitoring*; select *Yes* for *Scheduled checking enabled?*; change *Check every* to the frequency for checking the server - every 5 minutes is a good time frame, just in case there are any problems or any service faults. Set *with offset* to 0 so that it runs exactly every 5 minutes. Make sure all the hours and days are selected - to select more than one, use the 'Ctrl' key while you select them.

Change *Send email when* to *When a service changes status* or *When a service goes down* - whichever you feel is more appropriate to your system. Change *Email status report* to *Email status report to*, and fill in your email address. Click *Save*. You can also change *Send mail via* to an SMTP server which doesn't require authentication,

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otherwise select localhost, using 'Postfix' or 'Sendmail' - we will be setting up Postfix in future issues.

See my setup below:

Within the *System* and *Server Status* pages, you can add various monitoring options from the drop down list, you can also delete them by ticking the adjacent radio-box and clicking Delete.

You can also check your system logs by clicking on *System* and going to *System Logs* (below) - in there you can click on a log file and click *View logfile*.

Next month, we will configure file system backups using TAR, and start setting up an email server which will allow both POP3 and IMAP connections.

Daniel Lamb owns and runs *Flonix IT Solutions* and is based in Perth, Scotland. He is also involved in a number of open source projects such as *Moon Secure AV, Kantaris Media player*, and *open live support*.

He is also a committed Leeds United fan.
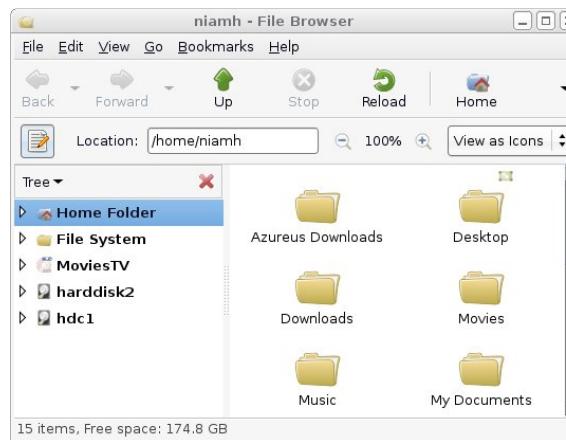
If you have used your computer for any length of time, you have probably begun to amass great quantities of data -- from family photos and music to more bulky movie files. If you're anything like me, you need to check your hard disk regularly to ensure that it has adequate space for future files. Of course, if it's running short of space, it might be time to archive large files onto CD/DVDs or even to install a new internal/external hard disk. Although your disk may now have adequate space, you may want to consider the following methods to keep an eye on disk usage.

The File Browser

Your File Browser shows your personal files and folders and can be started by clicking Places > Home Folder. In the status bar at the bottom of this window, you can see the amount of available disk space. In the screenshot below, there are 174.8 Gigabytes available. (I hope this is sufficient for storing my daughter's music collection!)
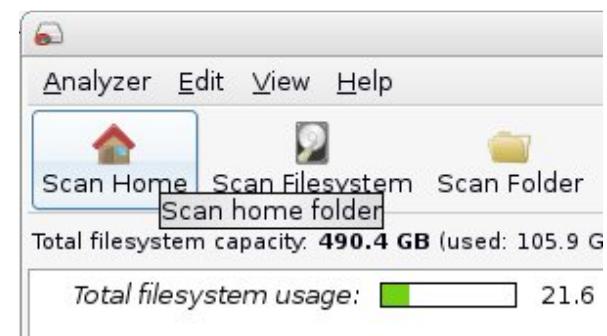
Disk Usage Analyzer

For more detailed analysis of your disk usage, Ubuntu comes with a handy accessory available from your Applications menu at Applications > Accessories > Disk Usage Analyzer.
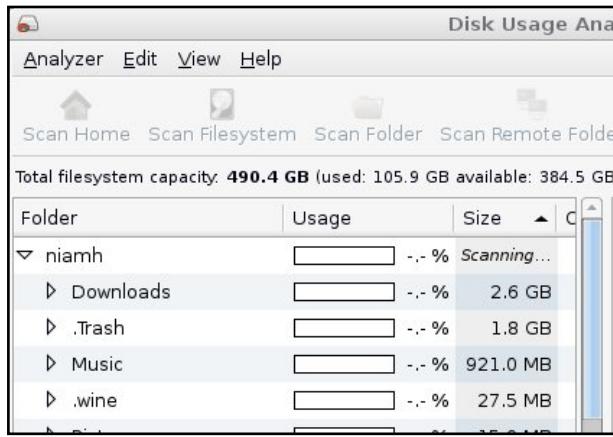
This tool (Baobab by Fabio Marzocca) gives a graphical representation of your files and folders as concentric circles. After starting the program, you should see some summary information about the total size of your filesystem, and the proportion of space you have already used.

To check for large files and folders within your own Home folder, try clicking the Scan Home button:
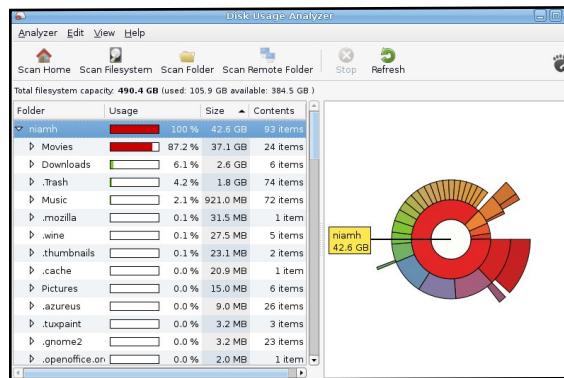
The Disk Usage Analyzer begins to scan your files and folders.
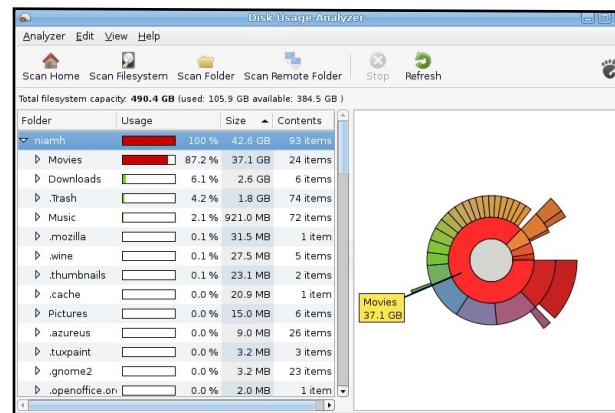
After some time, you should receive results similar to the screenshot shown.

The results are split into two panes. On the left, your folders are listed in order of decreasing size. The right pane shows a graphical view of your Home folder, with concentric circles representing its folders and sub-folders. Larger segments represent more disk space usage. The segment in the center represents your Home folder overall (e.g. /home/niamh) and, going out from the center, the first ring represents the main folders in your Home folder (e.g. /home/niamh/Movies), and the next ring out represents the sub-

folders within your main Home folder (e.g. /home/niamh/Movies/TheElephantsDream-2006).

As you hover your mouse over each of the segments of the circles, the name of the folder it represents pops up and the amount of disk space that is being used is also shown. As you can see from the screenshot below, my daughter's movie files are using 37.1 gigabytes.

It's also possible to "drill-down" through your folders and sub-folders using the tree-view in the left pane of the results. Clicking on the little triangles beside a folder name will reveal the sub-folders it contains, and the disk usage for each of those folders.

Command Line Junkies

At the command line, you can check the usage of your disk partitions with this command:

```
df -h
```

It's also possible to get a summary of the usage of folders within a folder by typing this:

```
du -s *
```

If you would like to know more about these commands check the man pages:

```
man df du
```
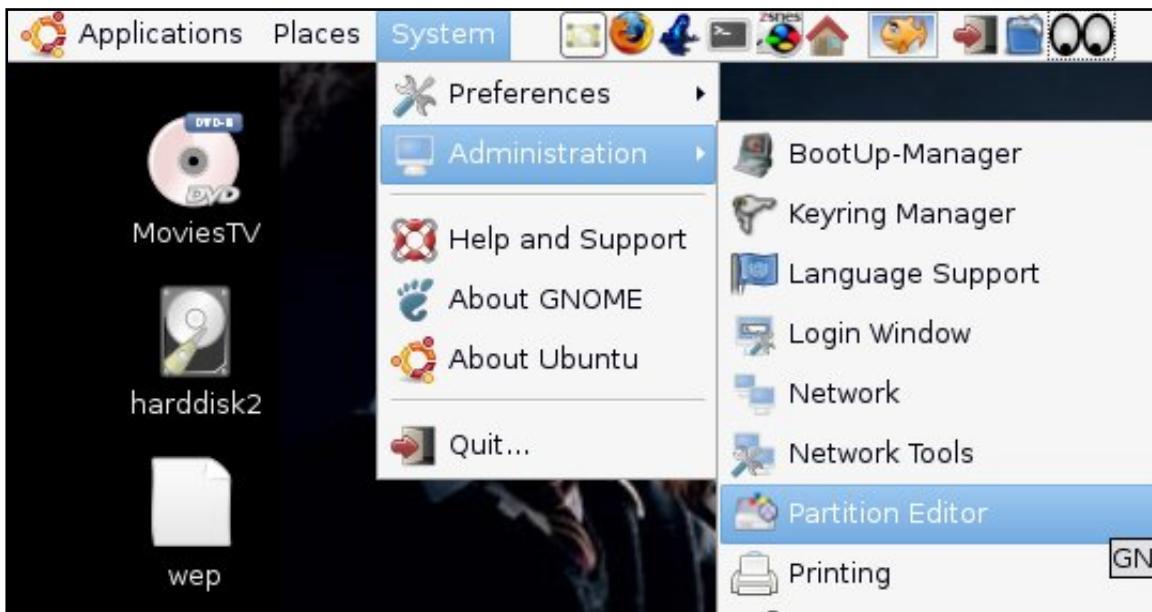
To exit from the man pages, hit: q

clicking System > Administration > Partition Editor.

   Partition Editor gives a graphical view of your hard disks and their partitions. As you can see from the screenshot shown, my daughter's hard disk is partitioned into three main partitions. One is formatted as NTFS (a Windows partition), another is formatted as ext3 (for Ubuntu), and the third is an extended partition which Ubuntu uses for short-term Memory Swap Space. The size of each partition is shown -- with the amount of used space and free space.

   If you have more than one hard disk drive in your computer, then you can view the partitions on each using the menu at the top right of Partition Editor -- where each device's name (e.g. /dev/hdc) is shown.

   As you can see in this screenshot, there are locks beside the partitions listed. This means that they are in use (mounted). If you need to make changes to these partitions (be very careful), you may want to try the GParted LiveCD -- but that is for another article!
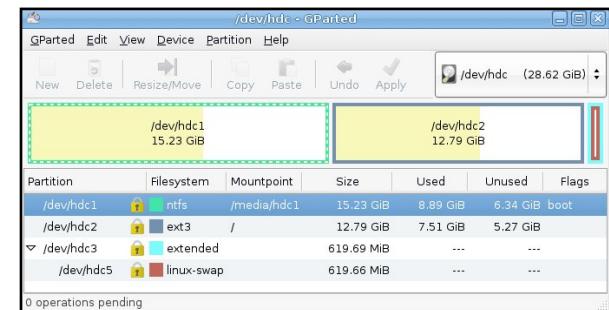
Partition Editor

   For a lower level view of your disks, and the partitions on those disks, consider using Partition Editor (GParted), available by
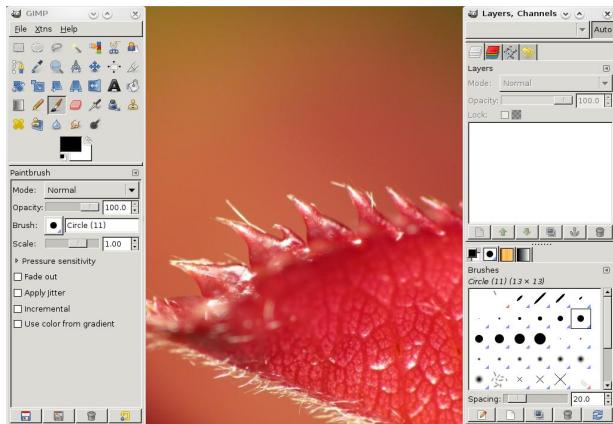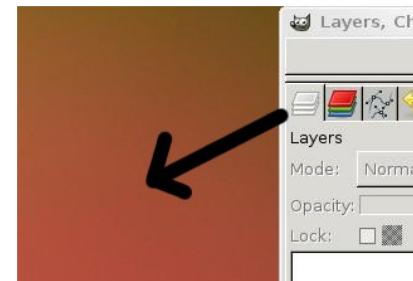
This series of tutorials, based on GIMP 2.4.2, will not cover every square inch of GIMP, since that would fill a book (and indeed has already filled several), but, by the end, you will be proficient enough in GIMP to create anything from simple web banners to large posters suitable for professional printing.

First, let's open GIMP, and have a quick look at its layout. Please note that a first load of GIMP may look slightly different from my layout (below). First I will briefly discuss the GIMP layout.
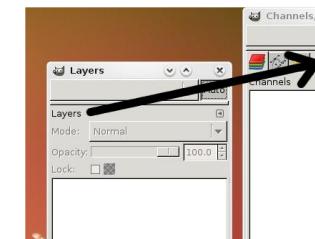
On the top left we see the tools, and on the bottom left we see the options for the chosen tool
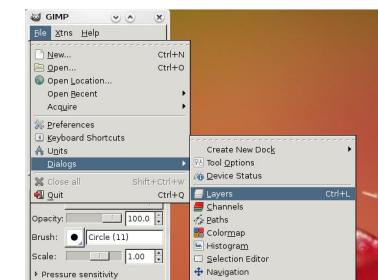
(Paintbrush, in this case). At the top right are tabs for Layers, Channels and so on, and at the bottom right are tabs for Brushes among other things. GIMP has a very flexible layout system where you can drag and drop items from place to place. For example, if I want to have my Layers presented on a separate window, I can click on the Layers tab (top right, shown right), and drag it out to my desktop.

If I want to have the Layers display back where it was, I click and drag

on the word 'Layers' on the window, and drag it back to the top right (left).
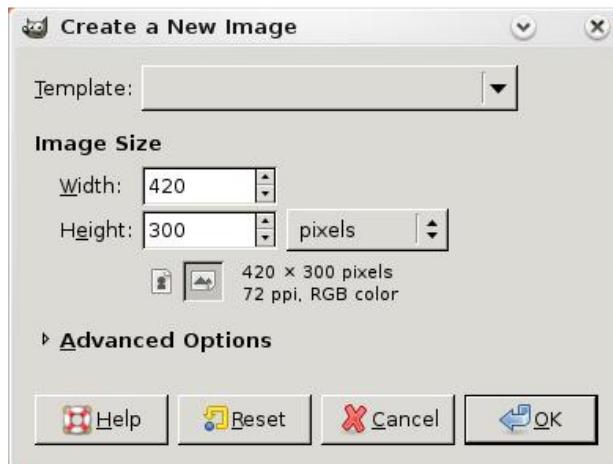
You can do this with anything you like - so feel free to configure your layout to whatever makes you most comfortable. If, by accident, you close any of your windows, and need to get it back, click on File > Dialogs and then the item you want shown - or hidden for that matter (above).

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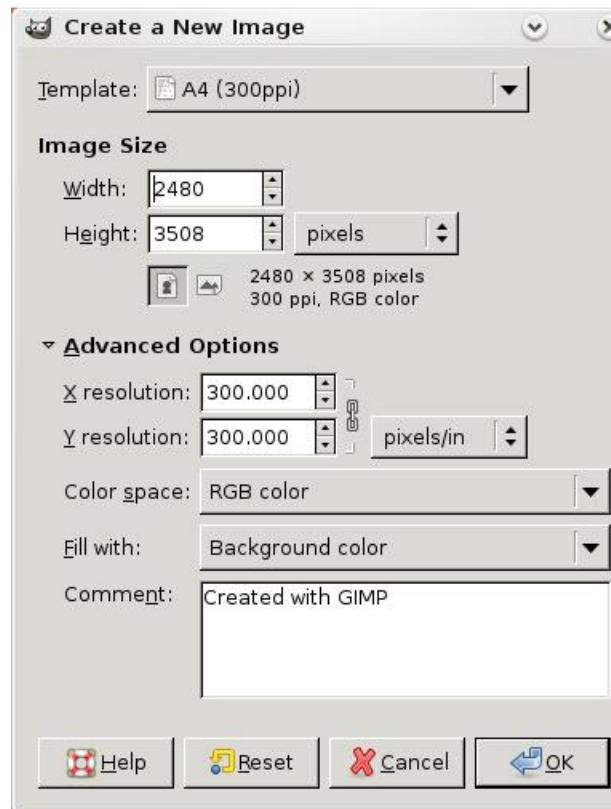
Let's create a new image. In the main menu, click File > New. Before we go any further, let me explain what some of these things do.

At the top of the window (above), where it says 'Template', we can choose from a variety of different pre-configured sizes. Click the drop down menu and choose 'A4'. Below that is 'Image Size'. This is now set to what we've just chosen, A4, so there's no need to alter these values just yet. To the right of the 'Height' value is a measurement type. At the moment, mine is set to pixels but with a click of the drop down menu I can change it to millimeters if I want. Below the width and height are two small boxes. Looking closely at the icons on the buttons should help you guess that the one on the left is for portrait (a vertical image) and the other for landscape (a horizontal image). For the moment, I'll keep it on portrait. A brief summary of your chosen options are to the right of these two buttons. Lets click 'Advanced Options', it reveals more choices.
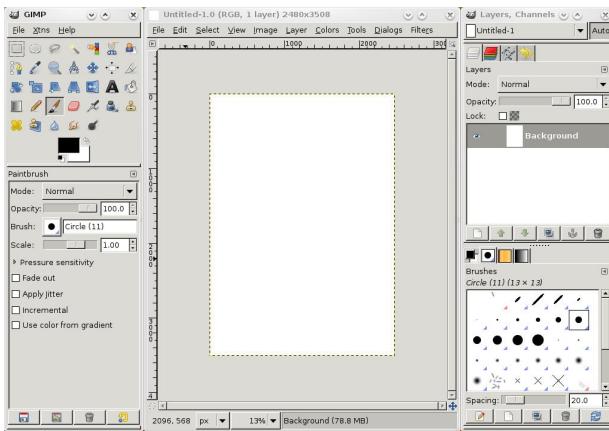
First, we have X and Y Resolution values. These specify how detailed your image will be. This is also known as Dots Per Inch (DPI), and is crucial in printing. Professional print houses will usually demand at least 200dpi, but mostly 300dpi. Near the values you can see a small icon which is links in a chain. In my image, they are linked - meaning that changing the X value will change the Y value automatically; clicking the icon will unlink them and allow different X and Y values. If your icon shows the chain links as open, then you will want to click it to have them as shown in the image above. For just a basic test image, change the X or Y value to 100. Next is 'Color Space'. I only have two options: 'RGB Color' or 'Grayscale', so I am keeping it at 'RGB color'. 'Fill With' lets you choose a starting color for your image. Finally, 'Comment' something that will be saved as part of your GIMP file. This could be anything from copyright information to your contact details.

With my options set, I click OK.

So now I have a fresh image to work on - but how do you work on

an image? We'll get to that in more detail later, but for now I will do a quick run through of some of the more important tools.

As you click on each tool (right), the 'Tool Options' (below the tools) will change. Each tool has its own set of options - which I won't go into just now, but play around with these options, because that's how you'll learn more!

Next month in part two, we'll look into color correction and color editing.

Ronnie Tucker is Editor of *Full Circle* magazine, a proud Kubuntu user, and part-time artist whose gallery of work can be seen at www.RonnieTucker.co.uk.

Why not give GIMP 2.4 a try? Available for Linux, Mac & Windows

Check your package manager for easy GIMP installation or download GIMP from:

www.gimp.org

Windows: www.gimp.org/windows

Mac: www.gimp.org/macintosh

First, some words of advice: never underestimate the need for a backup copy of your system and data. You never know when you'll lose a hard drive from an electrical spike, a fire, a flood, a burglary, or from some idiot dropping a heavy object on the computer case while the hard drive is writing -- who, me? Err...yes. Fortunately, my backups were secure. I had disk images of system and data partitions as a baseline, and incremental backups covering known restore points, so I needed to rescue only a few days of data. Please excuse my smug statement. I've been doing this awhile, but with That-Other-Operating-System-From-Redmond®©™. Getting organized in the brave new world of Ubuntu isn't difficult, but does take preparation and planning.

Sticky, sticky tar

I've been able to perform adequate backups using tar.gz from the command line, but the syntax to include and exclude all the relevant stuff for my system partition looks like this:

```
sudo tar cvpzf 710bu010408.tgz
--exclude="/proc/*"
--exclude="/lost+found/*"
--exclude="/dev/*"
--exclude="/mnt/*"
--exclude="/media/*
--exclude="/sys/*"
--exclude="/tmp/*"
--exclude "/var/cache/apt/*"
--exclude="/ext3_data/*"
--exclude="/vmdata/*" /
```

If it all goes wrong, I've got the whole file system, but no boot record or bootloader to restore. I still need to boot up to a terminal to un-tar the whole thing. Therefore, I would like to have some tools, preferably on a boot disk, with a guided interface that can image and restore the partition so that I don't screw up or miss out on anything. I happen to have such a tool: it's the Partimage application present on a bootable disk named Parted Magic.

Partimage: does what it says

What it says on the project wiki is: "Partimage is a Linux utility which saves partitions...to an image file." Run it from the Parted Magic disk, which boots a complete Linux kernel into memory so that you can work on your hard drives in safety. Features include:

• support for most Linux and Windows file systems (dual-booters can smile here)

• image file can be compressed with gzip/bzip2 to save space on your backup media
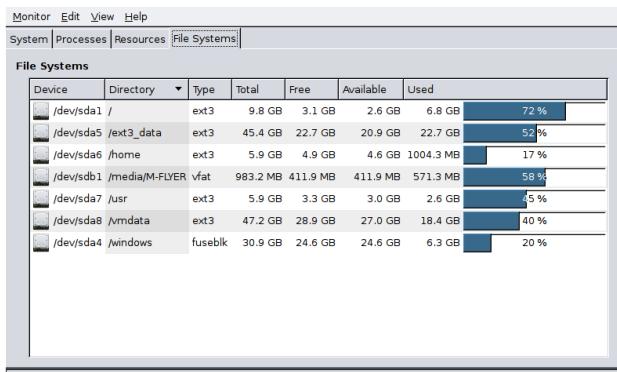
• image files can be split into segments to be copied on CDs/DVDs

• imaging across networks using Partimage network support, Samba, NFS

Nothing Like a plan

Two ground rules you should set before you start:

1. Make sure you know all your partition names, mount points, labels, sizes, and free space so that you don't get confused under Partimage -- you'll see why soon. I screen-dumped the File-Systems tab from Gnome System Monitor as it lists the mounted names. Alternatively, you could run Parted/GParted, or save the text file generated by the List Partition Tables utility on the Parted Magic CD.

In my case, I'm backing up /root, /home and /usr - which is my baseline for my Ubuntu system. So that's SDA1, SDA6 and SDA7. Nearly all my data files live on the other Windows/NTFS, ext3 and vmdata partitions that I backup separately. I don't need to worry about the swap partition because I'll create a new one when I do a restore.

2. My opinion: Don't image your hard-drive partitions while they are mounted. You want no writing to, or deleting from, the disk while creating the partition image -- not by your host operating system, any of your applications, or yourself. Boot from the live-CD and run the tools from there. Partimage doesn't need anything creating, moving and deleting files and folders while it attempts to create a true snapshot.

In true Columbo-style, "*just one more thing*"

Before backing up, make sure your target drive for storing image files has properly allocated read/write permissions, otherwise Partimage will give you a cryptic message when it can't write its temporary files on

starting the backup.

Parted Magic Tricks

This varies on computers, but I hit F12 during power on to get a one-time boot menu to select Boot from DVD/CD. On boot-up, Partition Magic gives you a neat, clutter-free, Xfce desktop, a single icon panel and slide-up menus for all the tools.
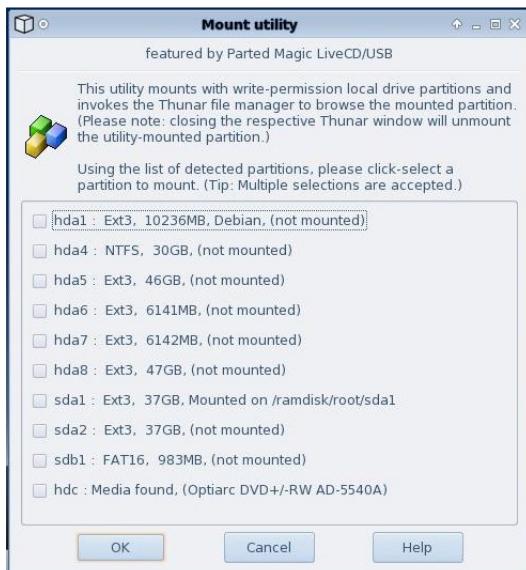
Mount/Unmount partitions

I start by firing up the Mount Utility, first to make sure none of the source partitions (to be backed up) are mounted, and second so I can mount the destination partition for Partimage to write its backup images! You tick the box for each item to mount/unmount. Some versions of the Mount Utility close on clicking the OK button without confirming completion. In the screenshot, I've relaunched it to discover the full mount point it assigned to my slow-but-reliable USB hard drive.
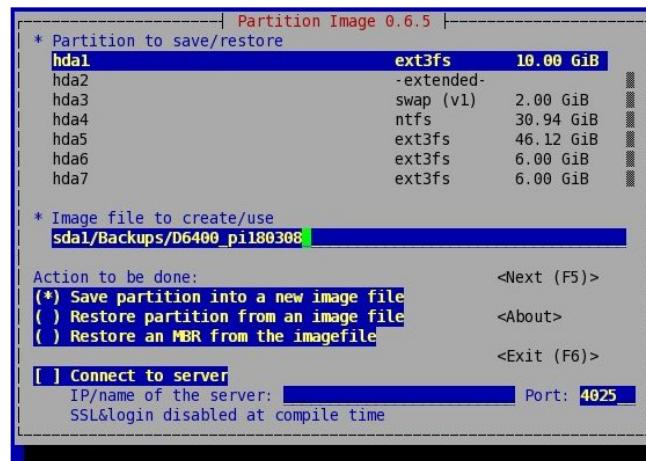
Yes, you can mount everything

manually in a terminal if you really want to.

At last - create partition image

Open a terminal session and enter partimage. It's a character-mode application, so you move around with arrow and tab keys, not with a mouse. The spacebar changes values in option lists; the active choice is marked with an asterisk. This layout works and guides you through the process.

Set the partition to save/restore. This is where you need to know your partition details. Since I've got /home and /usr on identical 6GB partitions, I need to identify which is which when I

backup and restore. Be alert to the fact that Ubuntu called my (internal) source partitions SDA# while Partimage used HDA# for the source and SDA# for the (external) destination USB drive! Thankfully the identifying number is the same. It's easy to be confused about the partitions -- not because of the software, but from operator error.

Set the image file to create/use. You need the full path, including the device, root and target folder as well as the backup file name. Type carefully and proof-read before you move on. Spaces and punctuation characters in the name should be avoided.

Action to be done: defaults to Save partition to a new image file.

Connect to server, IP/name and **Port** number are only for backing up across a network. Otherwise, leave these blank. You will need appropriate user logon, password and write-permissions for network drives--

Partimage will prompt you for them when it begins.

Tab onto the Next option or press the F5 key to move onto the next screen.

Compression Level: The guidelines are sound. "None" means no compression, so you need a backup drive with space equivalent to used space on your source partition. I take this as a general rule, as compression ratios vary according to the contents: .doc and .odt files compress well, .jpeg and .avi may not compress at all. Keep some free space for contingencies.
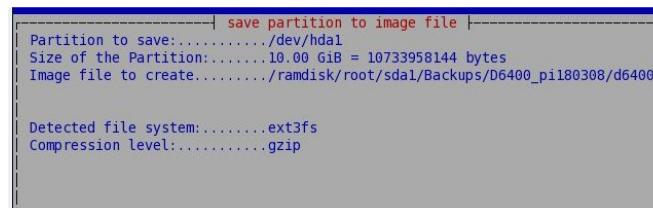
Image Split: Automatic is fine if you know you'll span several disks and expect a prompt to

change media.

File size: I always keep the default value because it's easier to manage portable 2GB segments with it. Also, if I get a read-error in one segment file I may still be able to salvage the rest.
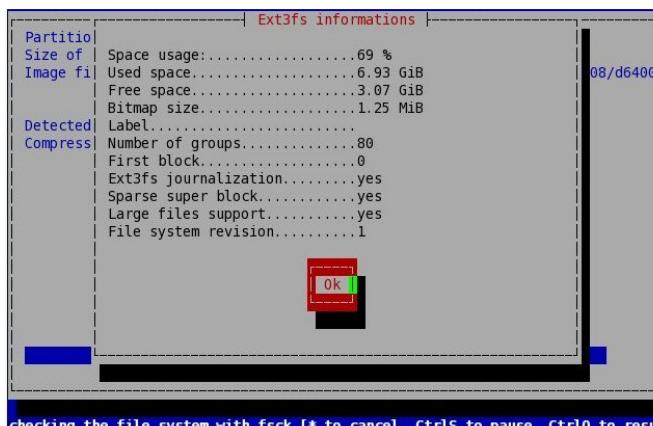
Continue with the F5 key again.

Partimage will confirm back to you what you've chosen.
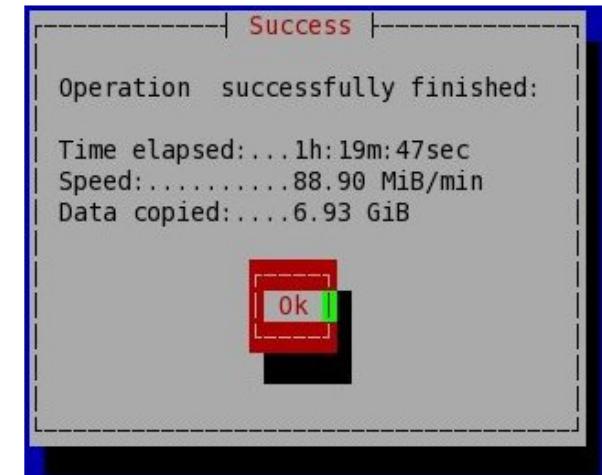
OK this to continue

If you chose to Check Partition before backup, you get the information pane

OK this to start the backup.

You will get a progress bar with elapsed and estimated time to complete. Writing to my old USB drive is slow.

You get completion status at the end of the backup.

Quick Guide to DVD backups

It is possible to write directly to DVD+R and R/W disks (DVD-R are problematic, apparently). Mount the DVD-drive first, then in Partimage:

• set path for the image file to the DVD writer;

• clear the "check for free space" option;
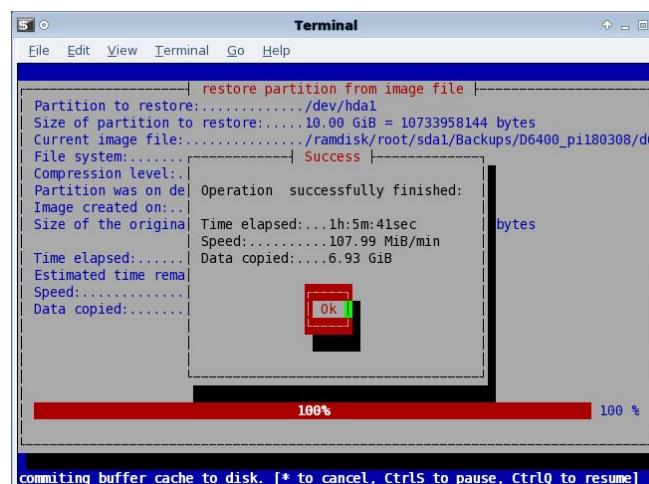
• set the size of backup file segments to a safe multiple to fit on DVD, such as 1.5GB (3 segments to a DVD);

• set it to "pause on volume changes" so you can swap in empty DVDs as they fill up.

Restore a disk image

Important: before restoring, make sure your replacement drive is in a fit state to boot a restored image. Partimage does not cover the master boot record (MBR) and bootloader. If you intend to restore to a brand new hard drive, you need additional tools to save and load your MBR, partition tables and a bootloader (all material for a separate How-to, but in the meantime, there's a useful guide in the on-line Partimage manual at http://www.partimage.org/Partimage-manual_Backup). For this How-to, I cheated slightly: I installed a scratch-instance of Ubuntu 7.10 from the live CD with custom partitions matching my old ones. This verified, within 20 minutes, that my new drive was working, complete with valid MBR and GRUB bootloader. The rest will be overwritten when I run the Partimage restore.

The restore process works much the same as the backup. You need to select the "Restore partition from an image file" option and identify your image file from the backup drive, mounted with read permissions. You should have your destination drive prepared with a target partition of equal or greater size to the uncompressed size of your image contents. I won't go into creating and resizing partitions here either. Partimage will obliterate existing data on any destination partition, so check your settings before you commit to a restore!

Before you reboot, make sure you have a valid Linux swap partition somewhere on the drive. GParted on

the Parted Magic CD can create this.

Confidence

Best of all, I know this works. I picked up a spare hard drive for the laptop for another project some time ago. I swapped out the main drive, put in the spare and booted the Partition Magic CD. Launching Partimage, I restored SDA1, SDA6 and SDA7. I rebooted and was able to log on to my regular Ubuntu desktop. Result: 100% confidence in my base backups. Now, what to do about the incremental backups...?

Next month, Stephen Bant will take things a step further and use Mutt to have backups automatically sent, as an attachment, to an email account.
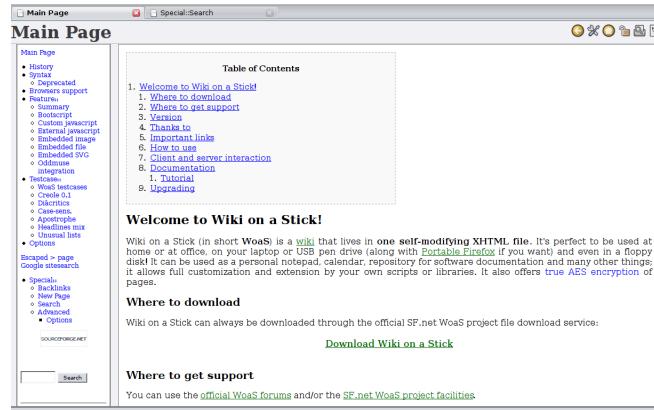
It's time to confess: I'm a PC junkie. I travel around the country a lot - to see clients, friends, and family. I usually take one of my three laptops, or I get stuck using various nasty client machines. There's a standard chunk of material I regularly use, including a stack of bookmarked URLs. I also maintain several Web sites, for myself and others, that I'm migrating away from Dreamweaver templates. I decided a while ago that I need a cross between a content-management system, an electronic post-it note, and a Web-page editor, something portable, compact, cross-platform, free to run client-side, publishable to the Web, and suitable for structuring my way. In other words, I need a Joomla-Tomboy-Quanta-Evolution hybrid.

I haven't included a wiki in this hybrid. You've probably used one on the web even if only *Wikipedia*.

A wiki provides instant page editing in most Web browsers; simplified formatting using wiki syntax; linking between articles; and embedding of documents, code, and links. And it's publishable as a Web page. Although most wikis are 'server-side' programs that need to be hosted and administered on a server, some so-called 'personal' wikis are available. Among these are *Tiddlywiki* (and derivatives like *Qwikiweb*), *Doxwiki*, and my current favorite: *Wiki on a Stick* (above) (http://stickwiki.sourceforge.net/), commonly shortened to WoaS. I carry it around on a USB memory stick. You

can see the default layout below. The software is available as a free download at http://sourceforge.net/project/showfiles.php?group_id=155218.

The personal wikis are glued together by the magic of JavaScript. I say "magic," because what you get is one HTML file containing all your data wrapped up in the JavaScript code that makes it all work -- editing, formatting, searching, encryption, namespaces, printing, etc. Your content is structured, and hidden, until the JavaScript reveals it for presentation through the browser. It makes for a superbly portable mini-application, and I use several instances for different purposes.

Things I like about WoaS

You don't need to understand, write or edit JavaScript; just

unpack it, erase the default pages (containing the core user instructions) and begin.

It works on its own terms; it is genuinely a standalone tool with built-in controls for permissions, settings, Cascading Style Sheets and so on.

You can edit the look and feel as much as you want. You can re-work the HTML and style sheets without messing up the JavaScript, which is how I made-over one instance of WoaS to use as my company Web page (below). Not all the personal wikis will render embedded formatting, much less layouts this complex.

You can use as much embedded HTML code as you want. The Edit window lets you mix and match HTML and wiki syntax--so I do (below).

WoaS automatically handles text searches (a strength of the personal wikis), so there is no need to manually index keywords, and it presents the results clearly.

It has edit-locking, and true AES encryption, to make it tamper-proof and secure. The encryption is, of course, especially valuable when a memory stick is lost or stolen.
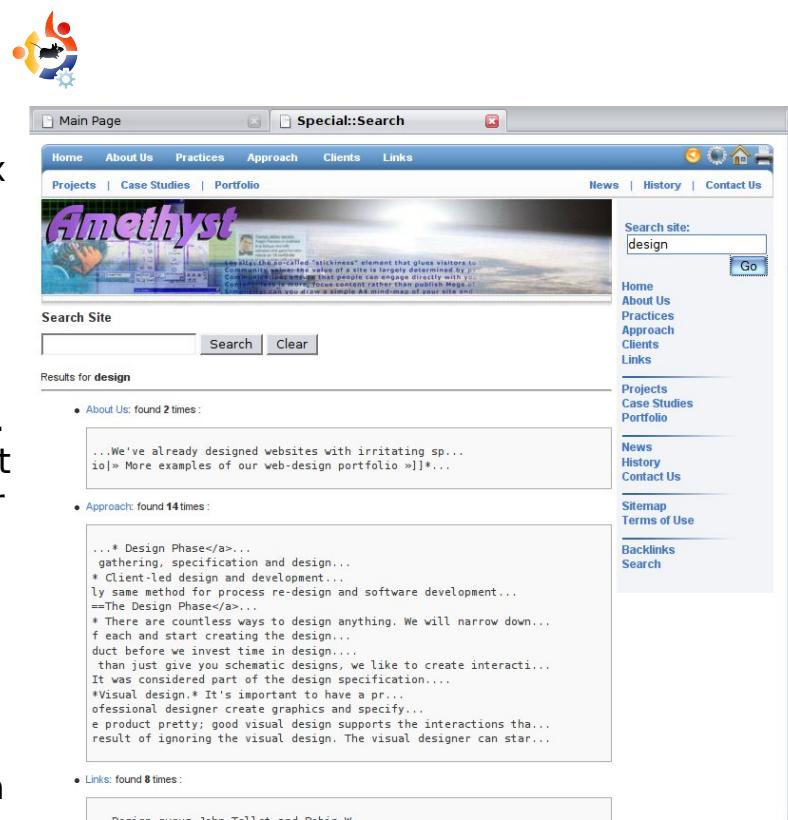
But, like most things in life, WoaS is a compromise.

Limitations of WoaS

WoaS is still a pre-production beta release -- I'm on version 0.9.6B. It's maintained by one developer with a small but active community, whose forums are very helpful (http://woas.iragan.com/).

You must have JavaScript enabled in your browser to display the page.

You can edit only your local copy, not one sitting on a remote server. Therefore you must remember which instance is your "master," keep it backed up, and republish it to the Web after all edits.

It's one single HTML file, not a content-management system, and definitely not a database. The JavaScript does a lot, and more features are planned. I've got five-thousand lines of code and content in one instance. Page editing in the browser is fine, but I have to be very alert (and patient) if I tinker with the wiki structure in GEdit. Did I mention keeping it backed up? Tiddlywiki will automatically keep file backups for you for free.

Things I won't do in WoaS

Tinker with the core JavaScript: I'm not good with code, and I don't want to break Daniele's masterpiece.

Embed images: I still think embedding image data (in a text file I'm editing) is asking for trouble. I even removed the default WoaS button images (though I do use my own). It's all HTML, so surfing (images/home.gif) for your own backgrounds and buttons works fine.

Embed large, complex documents: Remember, anything you embed will bloat the size of the text file. You won't want to embed your Full Circle PDF's!

Use the wiki as the home page on my Web site: It's a big file, and can take a while to download a cached copy into the browser. I keep a flat, fast, HTML banner page, and redirect to WoaS for my content pages. Hey, a two-page Web site isn't bad.

Conclusion

You can download any of the personal wikis, create a blank instance, and start using it without changing a thing. In terms of size and editing capabilities, they are about even. They all employ dialects

of the wiki syntax for links and format, but you need to know perhaps only four commands to create the basics. They all have wiki help pages, and healthy community forums. I prefer WoaS over the razzle-dazzle of Tiddlywiki. Although Tiddlywiki can do more, and has themes available, its code and structure is more complex. WoaS is deliberately tighter and simpler, yet it has some features - such as HTML export, and encryption - that the others lack. I'm finding it incredibly useful.

Users of Ubuntu and other Linux distributions can run many Windows applications with Wine (Wine Is Not an Emulator). If you have problems with the built-in DLLs (or APIs), it's possible to use native DLL versions to gain access to 100% of the functions an application requires. A simple example of this is when you install a game that requires DirectX 9 and doesn't start with Wine. If this happens, all you have to do is download d3dx9_25.dll from a site such as DLL Download or DLL Files and save it in:

```
~/.wine/drive_c/windows/system
```

I saw this in the comments for *Age Of Empires III* at the **Wine Application Database** (http://appdb.winehq.org). This database makes it very easy to check if your program works with Wine, and if it has bugs -- and, if so, how to fix them. I never had problems with the installation, but I did have some with the autorun of some games. The Wine Application Database (below) includes screen shots of the selected application, and a rating (Platinum, Gold, Silver, Bronze and Garbage).

Nowadays, I use Wine for Flash 8, Dreamweaver 8, the Flash decompiler, Remote Administrator (viewer only), Counter Strike Source, 18 Wheels of Steel, and Battlefield Vietnam. They all work great -- from the install to the playing -- but Wine isn't perfect, if you want to play a game that uses copy protection you must use a no-CD crack to play. Moreover, some applications don't work at all.

Despite its current limitations (it's still under development), Wine is a valuable addition to Linux.

There are some commercial implementations of the Windows API for Linux (most derived from Wine) with a focus on specialities such as gaming or office. The most popular is *Cedega* (http://www.transgaming.com). Subscribing to Transgaming (the creator) costs 5 USD per month (3 months minimum). After subscribing, you can download *Cedega* for free. I tried it, but I didn't see any major difference between *Cedega* and Wine (and, remember, Wine is free!), so I have continued to use Wine, but for some games, *Cedega* works better. Therefore, I recommend you test them both and decide which is for you.

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It all began way back on March 15, 2007, when I (Ronnie) replied to a post on Ubuntu Forums from **jenhson**:

> *Having a community magazine might be a cool thing. To gather good how-to articles and peoples (sic) thoughts. Have some space for advertisements to sell and return to the community foundation. By the way, the magazine should be free to everyone and be an e-magazine. People could just download it and have fun reading it.*

http://ubuntuforums.org/showthread.php?p=2299937#post2299937

But first, we needed a name for the magazine. Two weeks later, **guitarmaniac** gave us the name we needed:

> *For the name how about full circle? That was one of the proposed names for the official Ubuntu magazine which never got off the ground and I quite like it.*

http://ubuntuforums.org/showthread.php?p=2369793#post2369793

I thought that Full Circle Magazine was an excellent name, and many other posts showed agreement.

Meanwhile, **BuffaloX** pitched in with an idea for a tagline:

> *I think Full Circle is a good name for the magazine, but maybe with a subtitle like "ubuntu community magazine"? Just to make it easier for newcomers to identify what it's all about.*

Using BuffaloX's idea, our first tagline was "*The Ubuntu Community Magazine*". This was later changed to "*The Independent Magazine for the Ubuntu Community*" -- as the first suggested incorrectly that we were an official magazine.

Thus, on March 29, 2007, the magazine (still completely unwritten) was named Full Circle Magazine. On this same day, my historic posting for writers for the magazine appeared in the Ubuntu Forums.

Help me make a free 'buntu emag

http://ubuntuforums.org/showthread.php?t=396003

It snowballed from there. People graciously volunteered their services for various tasks. I then knew how much the community wanted this magazine. The first volunteer was **linuxgeekery** (Rob Kerfia), our web administrator, who is still with Full Circle:

> *I'm definitely in. I really suck at writing, but I'll try to contribute something. I might be able to help with the technical side -- distribution, website, hosting, etc.*

Rob's first contribution left

much to the imagination (below).
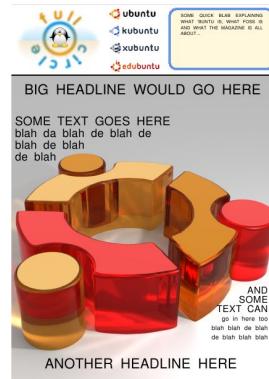
Meanwhile, I was busy beavering away on coming up with a logo for the new baby. My first version was, well, colorful if nothing else:

At this point, we had to decide on the magazine's format: HTML or PDF. I favored PDF, since it would allow more elegant designs by using a nice GUI application (after all, in HTML, what you see isn't always what you get). Now the hunt was on for the perfect

application. *LaTeX* or *Scribus* was pretty much what it all boiled down to. After many postings with users of both applications, I decided on

Scribus as *LaTeX* has no real GUI to speak of.

My first Scribus cover (left) wasn't very good, yet I pride myself in knowing it was better than Rob's.

My second mock-up cover (right) was slightly better. Some of its design elements are still in Full Circle one year on.

The postings were piling up on the Ubuntu Forums, so much so that we thought they might be considered as spam (entire pages were added to the thread each day). Luckily, the kind moderators gave us their blessing to keep going. However, we knew we would need a

home some day. So Rob Kerfia got on the case:

> *I did some research and I'm going with drupal.*

I remembered that quote well, especially when we released Issue #0 to the masses. We'll talk more about this later.

It was time to start creating templates for how the pages would look. For colors, I was thinking of the orange and brown which Ubuntu sported at the time:

As a tribute to Ubuntu Forums (for getting this whole thing off the ground), I used their colors to see how they looked. Viewers
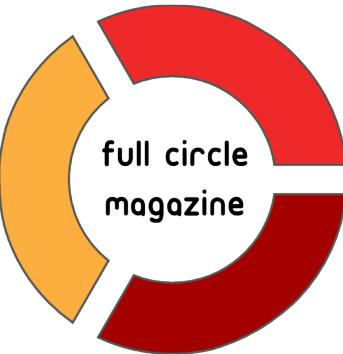
preferred them to the previous orange colors:

Next, what kind of font would suit the magazine? I found a font similar to the Ubuntu-logo font, and used it for the Full Circle logo, the cover, and the magazine. In hindsight, this wasn't one of my better ideas.
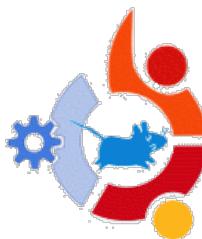
Ubuntu Forums user **mykalreborn** gave a new idea for a logo:

> I've spent a little time in Inkscape and came up with a different logo. It's a little dull, but I feel it fits better with the 'buntu theme.

But then **ookooboontoo** (ukubuntu) appeared on the scene with a logo:

> Here's a logo I have been toying with, I am sure someone could make it better with original files etc

Stop the presses!

The masses and myself were impressed with this merge of all four flavors of Ubuntu in one logo: Edubuntu on the top right, Kubuntu on the left, Ubuntu on the bottom right, and the Xubuntu mouse in the middle. Perfect!

The next version had the Kubuntu section moved to the lower right. Between that and the Ubuntu-style text beside it, the logo was coming along in leaps and bounds.

Irony? April 1, 2007 (April Fools Day) was when I released the first beta of the magazine. I decided on beta versions because they sounded geeky and made me sound like a programmer -- which couldn't be further from the truth.

More irony? April 2, 2007 brought the first posting from another long-running team member, **mrmonday** (Robert Clipsham):

I wouldn't know what to write about. But if you give me some ideas, I can write for you.

On that day, we also cleared up a little misunderstanding between myself and a member of the *Ubuntu Marketing Team*. To cut a long story short, the Marketing Team were offering their services to help distribute the soon-to-be-released magazine. I agreed to this, since I knew the Marketing Team would have far more visitors to their site than we would have. I then suggested that I create an Issue #0 which would tell the history of Ubuntu, and discuss the new features of the soon-to-be-released Feisty Fawn. The Marketing Team liked this idea, and we agreed it would be best to release #0 just before the release of Feisty itself.

The following day mykalreborn

refined the logo and it was stunning!

We still use this logo one-year on.

On April 4, I posted some screenshots of how the pages were coming along (right).

A posting then brought up a valid point: which license would the magazine be released under? **Burgundavia**, from the Marketing Team, suggested we use the *Creative Commons Share-Alike* license. There were no objections from anyone so it was adopted on April 6, 2007.

Now that we had a focus and target, it was full steam ahead. A deadline was looming and it was time to further refine the cover image:

I was thinking: well, Feisty Fawn will be a hot distro, and Feisty can mean hot, so why not put some fire in there....

Ookooboontoo brought me down to earth with a thump (no pun intended):

> *This second one looks like a spaceship from Dr. Who crashing to Earth as it burns up!*

April 12, 2007 saw the final beta of what would be released as Issue #0.

After exactly one month, and over fifty pages of posts on Ubuntu Forums, Full Circle Magazine Issue #0 was released. The day was April 15, 2007.

A few days later, I remembered vividly Rob Kerfia's quote about Drupal: "I've done my research...." Why? Within days of Issue #0 being released, his Drupal site melted and died. He had to quickly toss up a portal frontend to take the strain off the average of five downloads every minute (that's over seven-thousand downloads per day). Even then, his server struggled to keep up. It also didn't help Rob (though it helped us) that we were featured on *Digg*. But to Rob's credit, the site was never down.

The moral of the story: when Rob says he's done his research, be afraid, be very afraid!

Behind The Scenes

When it came time to organize Full Circle Magazine for Issue #1, we saw nothing available that was free and open source for organizing such a publication. We wanted a web-based system that could accept articles, put them in a wiki, let proof-readers edit them, automatically email writers, and so on. But nothing like this exists -- even now.

Initially, all the articles came to me (the Editor). They got merely a quick proof reading from myself, Rob Kerfia, and a couple of others. That's why there were quite a few mistakes in the first few issues, and **many** people let us know about it. For a website, Rob created a quick Drupal site which didn't do so well. It looked nice, but it was dying on its feet with the strain of serving Issue #0 to the hungry masses.

Roughly one-month later, Issue #1 arrived. Again our poor Drupal site had to suffer the strain of dishing out issues willy-nilly. Our main concern was

either that people were getting a slow download, or that sometimes the site wouldn't load quickly -- if at all. Something had to be done. In addition, readers were complaining about the rounded Ubuntu-style font being hard to read, the brown colors, and the too-many rounded boxes. I've no idea why people complained about rounded corners, but they did. A redesign was needed. By then, we were also getting contacted by various readers who wanted to translate Full Circle into their native tongue (a great compliment).

As time went on, and the team became larger, we implemented a Web-based system called *activeCollab* to help organize things. Of course, no sooner had we implemented it than they announced that the project was closed. But activeCollab had its faults anyway. Its main defects for us were that it didn't allow online editing of files (which we desperately needed), and it was difficult to administer. Once again, we had to think of something else. I'm sure you can see a

pattern emerging here.

Rob got to work creating a new website (right). Well, more of a forum than a site, but it did well for several months. We now had an SMF forum installed -- but with a portal front-end for gaining easy access to the downloads. We also created an IRC channel. We knew we needed someone to keep an eye on all these things. Robert Clipsham (MrMonday) was chosen for this. This choice was easy, since he practically lived on the forum and on the various IRC

channels. While he was doing that, I set to work on a redesign.

Issue #2 was released with a new, cleaner layout, which most people liked. However, many

FULL CIRCLE ENGLISH EDITION DOWNLOADS - June '07 - March '08		
ISSUE	DOWNLOADS	AVAILABLE TRANSLATIONS (as of March '08)
1	59,044	Dutch, Spanish, Italian, Polish, French & Hungarian
2	50,128	Italian, Polish & Dutch
3	33,517	Chinese, Italian & Spanish
4	28,031	Chinese, Italian & Spanish
5	34,770	Chinese, German, Italian & Spanish
6	34,708	Chinese, Italian & Spanish
7	32,554	Chinese, Italian & Spanish
8	25,548	Italian and both Chinese Traditional & Simplified.
9	23,945	Italian and both Chinese Traditional & Simplified.
10	20,983	French & Chinese

If you would like to translate an issue of Full Circle please email: ronnie@fullcirclemagazine.org

viewers still wanted a landscape layout rather than the current portrait layout. This would be a major redesign job for me. Moreover, with several translations of Issue #0 ongoing we had to do something about how articles were proof-read and passed to the translators. Rob Kerfia to the rescue! Rob installed PmWiki (below), which would let the proof-readers edit the articles to correct spelling mistakes and bad grammar. With this, Robert Clipsham, Rob Kerfia, and myself would have to paste each received article into the wiki and upload the necessary images -- not a nice job. But at least the translators would have easy access to the raw text -- or so we thought.

After Issue #3 was released, I began converting the layout to landscape. This is probably not a big task for experts, but I was not one: I had used only Adobe InDesign (in my Windows days). Now I was learning Scribus as I went along. After Issues #4 and #5 were released, we realized the flaw in our wiki plan: articles were indeed being proof-read and edited on the wiki. However, when I took an article and placed it in the Scribus layout, the article sometimes was too large for the allocated space. I then had to edit the article in Scribus to make it fit. This meant that the article in the released PDF did not match the article on the wiki. This also meant that the translators were using the wiki text which, even when translated, was too long. I then implemented a word count for each regular article. One page was roughly 350 words and could include one image. Articles such as How-To's were unlimited. Left-over space could be used to advertise sites, such as Ubuntu Forums.

The next problem was our SMF portal. The forum itself was rarely used, but we had a few-thousand members we didn't want to lose. Rob Kerfia installed WordPress (below), added Google Analytics, and successfully converted the database from SMF to WordPress so that we could keep existing logins and email addresses for our mailing list. For a forum, we applied to Ubuntu Forums for a 3rd Party forum and they graciously accepted.

By Issue #6 things had settled down. We now had a good system for proof-reading; the forum was now effectively handled by Ubuntu Forums;

MrMonday was helping people in the IRC and on the forum; WordPress was quite happily serving up five issues per minute without dying; and I finally got up to speed with Scribus.

Things have settled down over the past few months here at Full Circle. **Long may it last.**
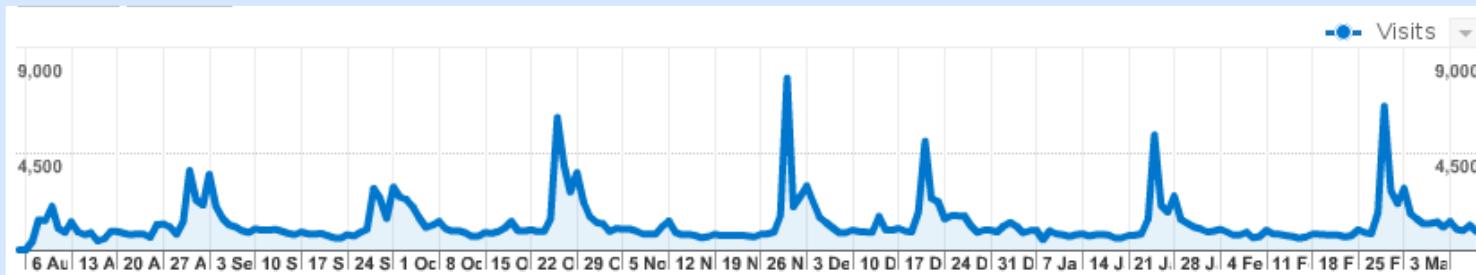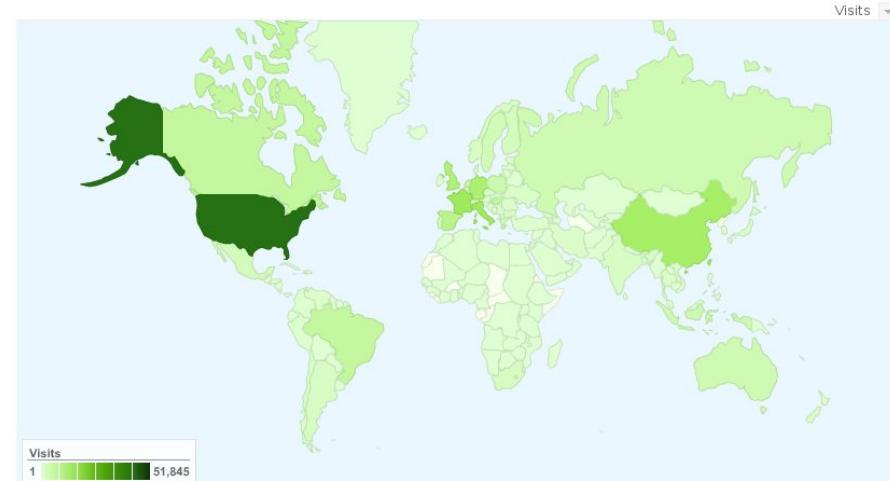
OS	Visits	% Visits
1. Windows	135,466	49.00%
2. Linux	132,099	47.78%
3. Macintosh	7,559	2.73%
4. (not set)	924	0.33%
5. FreeBSD	137	0.05%
6. SunOS	88	0.03%
7. iPod	39	0.01%
8. SymbianOS	32	0.01%
9. iPhone	28	0.01%
10. OpenBSD	23	0.01%

Left: Google Analytics graph (Aug. 07 - Mar. '08) showing spikes as each issue is released. On release days the number of daily visitors can jump from 100 to 8,000!

276,464 visits came from 186 countries/territories (shown right)

Country/Territory	Visits	Pages/Visit	Avg. Time on Site
1. United States	51,845	2.53	00:02:17
2. France	18,261	2.51	00:01:54
3. Italy	18,116	2.95	00:02:26
4. China	16,615	2.63	00:02:26
5. Germany	15,022	2.41	00:02:00
6. United Kingdom	13,688	2.50	00:02:13
7. Spain	10,955	2.89	00:02:38
8. Hungary	8,409	2.46	00:02:16
9. Canada	8,090	2.60	00:02:25
10. Brazil	7,705	2.37	00:02:44

Above: Map showing where most of our sites visitors originate. Dark green is 50,000+

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

Travis Watkins recently became a MOTU after a long time in the Ubuntu community. He is best known for *Alacarte*, the Gnome menu editor (above). He also wrote a Bayesian content filter called *willow-ng* for Edubuntu and more recently has been working on 3D desktop with the Compiz community.

Age: 20

Location: Iowa, USA

IRC Nick: Amaranth

> Start with a package you care about...

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

I started with Debian in 2003.

How long have you been using Ubuntu?

Since the very first release, so around the end of October or start of November in 2004.

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

I had created alacarte, my menu editor, and needed a package for it. This was probably around April or so in 2005.

What helped you learning packaging and learning how the Ubuntu teams work?

I started with the Debian New Maintainer's Guide and then started looking at existing packages that were similar to what I was trying to do. I mostly learned how things worked in Ubuntu by watching what everyone else was doing.

Favorite part of working with MOTU?

Knowing people are having a better Ubuntu experience because of work I've done.

Any advice for people wanting to help with MOTU?

Start with a package you care

36

about personally, that way you'll learn all the tricks and techniques needed to make it the best it can be because it makes your life better too.

How do you see compiz/3D desktop changing Ubuntu and computing in general in the future?

With compiz and related technologies we're reaching the point where our only limit to what we can do is our imagination. With this new power we can redefine the way you use your desktop for the better.

Any Plans for Hardy Heron?

My main goal is still getting compiz working better but along with that I want to package all the fun blingful things you can use once you have compiz, like Avant Window Navigator, screenlets, moonlight widgets, etc.

Favorite quote?
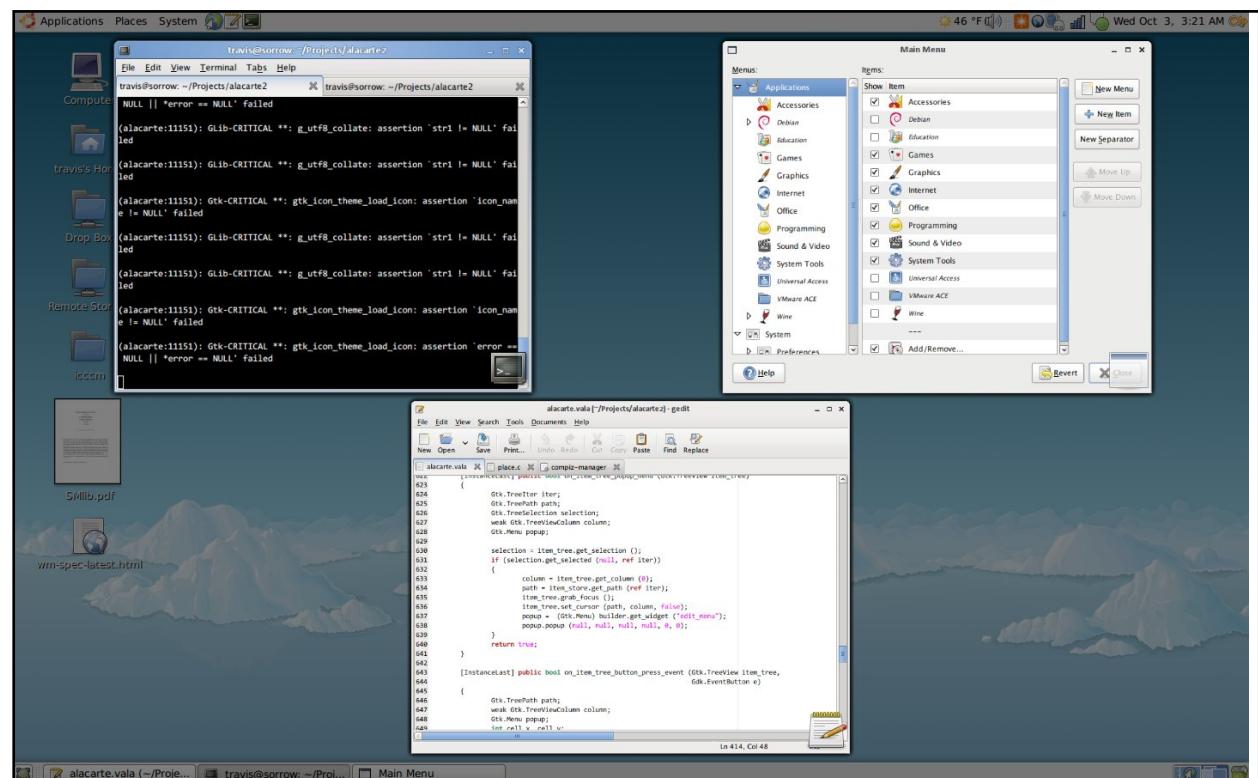
"The human race is a race of cowards; and I am not only marching in that procession but carrying a banner." — Mark Twain

What do you do in your other spare time?

I enjoy walking/jogging and am trying to learn to play guitar.

Pic of you, your work area, and/or your screen?

My 'work area' is a reclining chair (laptop ftw) so it's not very interesting.

> *The human race is a race of cowards; and I am not only marching in that procession but carrying a banner. —* Mark Twain

image: Library of Congress (Flikr.com)

The tricky part about change is converting enthusiasm into action. You have a vision of the future. You know the goals you need to accomplish. You are ready to put your plan into action. But how do you get people to actually sign up and to complete the tasks you have identified?

Open source software communities are bottom-up communities. Their members like to choose the bugs to be fixed, and to champion specific features. Affecting change is exactly the same. It is important to harness the energy of your team members. Allow individuals to pick the tasks they are keen to address. Take advantage of the excitement that is available to you at any given moment to get different tasks completed. Help volunteers find tasks they want to work on. Remember to ask for help, newcomers love being asked to be a core part of their community.

List your tasks according to their complexity and time requirements. Proofreading a media kit might be time consuming, but does not require intimate technical knowledge. Booking a room for your next face-to-face meeting, on the other hand, takes less time, but requires a different kind of knowledge. Seeing progress is very motivating. Ask people to set deadlines of less than two weeks for each of their tasks.

People are now signing up for tasks and getting them done. Fantastic! Next month we look at evaluating progress.

Emma Jane Hogbin builds and supports on-line communities using open source software. She lives in rural Canada and chronicles her adventures at www.emmajane.net.

UBUNTU YOUTH

Written by Matthew Holder

The future of open source is in the young people of today; that's why this corner of the magazine is for young people or simply those who are young at heart.

When I started my current job in August 2005, I was told to see persons X,Y and Z for logging in to the system, for getting an e-mail address, and for obtaining a PC for myself. I was also told to make sure I got a machine with Windows installed. This comment instantly distressed me. During my time as an undergraduate (at the same Physics department), I had used Linux on my own laptop, and also on a couple of machines in the department for a project.

After a few weeks of working on the Windows machine (as this was all that was available), I realized how the divide worked. The technical staff were using Windows for their operating system, Microsoft Office for their documents, and Microsoft Outlook for e-mail, while the lecturers and other research staff were using the Linux operating system.

Linux is used by the academics due to the ease with which custom software can be produced for it, and to its stability - which is vital when running such software. Also, most documents produced are scientific papers and LaTeX is the primary software used for this. During my time as an undergraduate, a cluster was purchased by the department. This consists of 100 dual-core, rackmounted PCs, networked together, and running Debian. Linux is vital in this situation because complete control is needed to administer the cluster; also, imagine the cost for paying for a cluster version of Windows?

Today, things have changed. A lot of the technical staff are now happy using Mozilla Thunderbird for e-mail, Mozilla Firefox for browsing the Internet, and OpenOffice.org for producing documents. This last point is important to me, as I can receive documents using the ODF file format, and thereby avoid annoying MS Office import errors.

Much work needs to go into promoting Linux to the masses - the views of many are outdated, and do not reflect the current status of projects such as Ubuntu!

I am now happily using Linux on my office PC!

Matthew is a Physics graduate working on the LISA Pathfinder space mission in the West Midlands, UK, and passionate about FOSS, and tries to promote it, as well as open standards, whenever possible. His blog is at: http://mattmole.wordpress.com

LETTERS

Since I'm a Linux user, and love to read about news in the open source world, this means I like to read Full Circle. I must say that Ubuntu has evolved greatly since 6.06 (the first primary Linux distro on my PC) and still there are some things that I hate (like compiled mencoder and ffmpeg with half options) but I do like that there are no patent and license difficulties. I found a good AutoCad replacement for 2D drawing (qcad), a way to use my DOS apps (dosemu) and to convert between many video formats (convertit) but there is one section where I need some help, and that is video editing. I just need basic trim/copy/paste possibilities (with sound and video) but I also need (very badly) video transition effects. Any recommendations?

Krak

LETTER OF THE MONTH

This weekend was the birthday party of Nyana's grandmother, also known as the 'Ubuntu Granny'. This Gutsy Granny is one of the geekiest Senior Citizens I know and has been running Ubuntu on her old laptop for two years now (see FCM#2).

When we went to the family dinner a few weeks ago I took along my Asus EEE, just to keep me occupied. Granny walked into the living room, caught sight of it and immediately remarked: "what is that?!" I explained to her what it was, where I got it, and how much it had cost me. She was ecstatic! Twenty minutes later she yanked it out of my hands and was playing Frozen Bubble like there was no tomorrow. Talk about your anti-social teenager texting when the family has dinner? This is the 81 year old computer-savvy grandma who couldn't care less if her soup went cold as long as she made it to the next level of Frozen Bubble.

With her birthday coming up, the family put their heads together and we looked at pitching in and getting her one of these. Of course they aren't available in Belgium yet so we decided to give her a "voucher" on her birthday for "One EEE

PC" to be collected as soon as they arrive here in Belgium.

Did I mention that my EEE is running a full distro of Ubuntu?

I took my EEE with me as a "demo unit" and she got to pose with it (and play more Frozen Bubble). Just to show how geeky this family is: we hooked the EEE to some stray wifi and were showing each other YouTube videos and were uploading the pictures we took at the party straight to Flickr. So happy birthday Gran-EEE and may your ASUS arrive soon.

Knightwise

Ed: *The only one I've (briefly) used is AVIdemux which is basically a Linux version of the Windows program VirtualDub. Although I'm not sure it has transitional effects but I'd certainly recommend it for the basic trim/copy/paste things.*

The desktop from Jozef Anon in the "My Dekstop" section of FCM#11 was cool! It was one of the few desktop layouts, which didn't try to mimic Vista or Mac OS X and still made my eyes pop-out.

Chandra Sekar.S

Ed: *You're not the only one. I received about half a dozen emails asking me about Jozef's desktop! It certainly is one of the most impressive original desktops I've seen.*

I have continued on my Ubuntu pumpkin idea (see FCM#7 Letters), but this time I made a set of Linux Easter eggs including, of course, an Ubuntu egg. The process of making them was actually very simple, as you may be able to tell from the pictures. I just printed out the logos of Ubuntu, Fedora, Gentoo, OpenSuse, and Sabayon. Then I used double sided sticky tape to attach the logos to some Easter eggs I had. It only took about 5-10 minutes, so I would encourage others to create their own.

LinuxLoop

Reading the "You Use Ubuntu, not Linux" opinion piece (see FCM#11), I couldn't help but feel a little offended when Vincent attempted to call me "crazy". That's a pretty harsh and judgemental statement coming from someone with such a juvenile argument.

Vincent's justification for calling those who insist on referring to the operating system as "GNU/Linux" was a poor attempt at a reductio ad absurdum argument, as he claims that no one would name every component of his operating system (e.g. GNU/XFCE/Firefox/AbiWord). Clearly Vincent doesn't understand the difference between an operating system and an application. Ubuntu is a distribution of the GNU/Linux operating system with many additional applications and tools. GNU is the operating system, Linux is the kernel. You need the GNU tools and Linux for your computer to "operate"; you don't need a web browser or spreadsheet program.

GNU/Linux is much more of a logical name for the operating system, even if Ubuntu is the appropriate name for the distribution. I hardly think that's crazy.

Blaise Alleyne

Ed: *You make some good points, and I agree that any Linux created using GNU tools should be referred to as GNU/Linux as it gives credit where it's due. I personally believe that Linus Torvalds receives too much credit for Linux; without Stallman's GNU tools there'd be no kernel.*

Q&A

Written by Robert Clipsham

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

Q Can I install Ubuntu from within Windows?

A Yes you can. You can use a tool called Wubi (http://wubi-installer.org), which will allow you to install Ubuntu without repartitioning your hard disk or changing your boot loader. Wubi will be included with Ubuntu 8.04, which will be available as you read this.

Q How can I set my printer to print in greyscale by default?

A Simply go to System->Administration->Printing, then change the Color Model to Greyscale.

http://ubuntuforums.org/showthread.php?t=753031

Q How can I get new mail notification on KDE independently of Thunderbird/KMail?

A You can use a utility called *kbiff* (available in the universe repositories) to instantly notify you from your system tray.

Q How can I enable playback of mp3s in amarok without internet access? what package do I need?

A You need the package '*libxine1-ffmpeg*' which you can get from http://packages.ubuntu.com/gutsy/libs/libxine1-ffmpeg.

Q What application can I use for taking video screen captures in Ubuntu?

A There are several applications you can use for this, including *gtk-recordmydesktop* (*krecordmydesktop* for KDE users), *Istanbul*, and *Wink*, all available in the repositories.

Q I'm trying to create a DVD video using DeVeDe, but the sound is distorted - how do I solve this?

A This is caused by the buggy version of Mplayer/Mencoder that is included with Ubuntu. A working version is available in the backports repository (for Gutsy users) - Users of earlier versions of Ubuntu can download a DeVeDe package which includes older versions of Mplayer/Mencoder from its website (http://www.rastersoft.com/programas/devede.html) which includes working versions of Mplayer/Mencoder.

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.

Almost everything on my desktop is available out of the box, with the exception of Screenlets. Even the widgets are available via Compiz Fusion. The Evolution icon is docked to the tray via Alltray. All I've added to the lower taskbar are the lm-sensors applet for monitoring CPU and hard-drive temperatures, and the system-monitor bar.

Computer Specs:
HP DV6215, Ubuntu 7.10, Gnome 2.20.1, 15.4" widescreen (@ 1280X800), AMD Turion 64 2.0ghz, 2 GB of RAM and an Nvidia Go6150 graphics card.

Doug

Just like any other computer fanatic, my laptop is my baby. She's a Dell e1505 XP/Ubuntu dual boot with an ATI x1400 video card and 2GB of RAM. I've been using Ubuntu since September 2007 and I love it more and more every day. This is my most recent desktop configuration since installing AWN (Avant Window Navigator). I have an entire folder dedicated to silky smooth wallpapers that contribute to my laptop's "green" theme. I even custom painted a green border around the trim and modded the carbon fiber lid to be truly unique.

**Dan Cartis**

TOP 5 DISK ANALYZERS

Written by Andrew Min

Your monthly list of Linux games or applications from the depths of the Internet. If you have an idea for a list, please email: misc@fullcirclemagazine.org

KDirStat

Homepage: http://kdirstat.sourceforge.net/

KDirStat is by far my favorite way to find out where all my disk space went. Just open it up, select the directory to scan, and hit OK. *KDirStat* will then analyze your system and spit out a colorful, graphical representation (known as a treemap) of your file system. The bigger the chunk, the bigger the file size. It will also let you delete the file if you don't need it (you need to be very careful about deleting system files, however). You can even browse remote directories using the Open URL command (under the File menu).

To install *KDirStat*, grab the **kdirstat** package in the universe repositories.

Filelight

Homepage: http://www.methylblue.com/filelight/

If the treemaps just give you a headache, you may want to try the *Filelight* approach. Instead of treemaps, this KDE app visualizes your hard drive as segmented rings, like a pie-chart. Clicking on a segment of the pie chart will zoom to that folder. You can also open the current file or directory with a simple click of the middle mouse button. It's a very handy tool that any treemap-hater should use. And best of all, since it's a KDE app, you can browse any protocol (e.g. SSH or FTP) using KIO (the KDE Input/Output protocol framework).
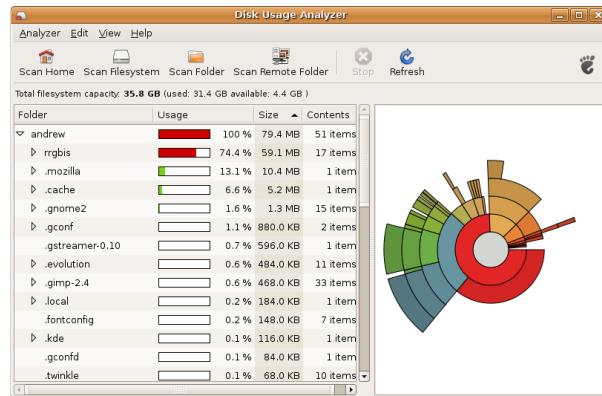
To install *Filelight*, get the **filelight** package in the universe repositories.

Baobab / Disk Usage Analyzer


Homepage:
http://www.marzocca.net/linux/baobab.html
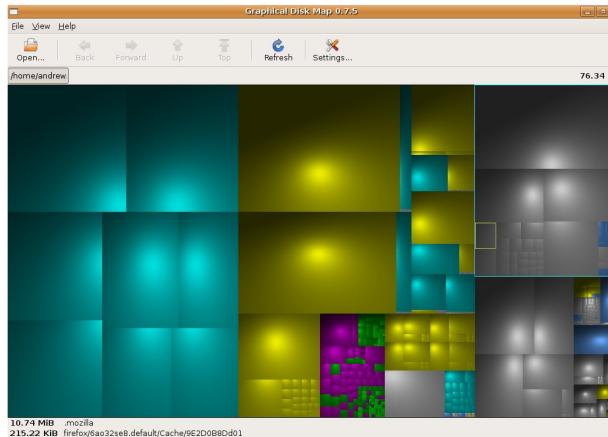
To all you Gnome users out there, meet *Baobab* (also known as Disk Usage Analyzer). Based on Filelight's technology, *Baobab* uses the segmented-ring approach to visually display your hard-drive's usage. It also outputs a file tree that can be sorted alphabetically, by size, or by percentage of hard-drive space. And like Filelight and KDirStat, it can scan remote directories -- a big plus. For more on *Baobab*, read the Ubuntu Disk Usage article on page 13.

If you're a Gnome user, *Baobab* is pre-installed (look for Disk Usage Analyzer). If it isn't installed or you aren't a Gnome user, you need to install ***gnome-utils*** (which unfortunately contains a lot of other tools).

GdMap

Homepage:
http://gdmap.sourceforge.net/
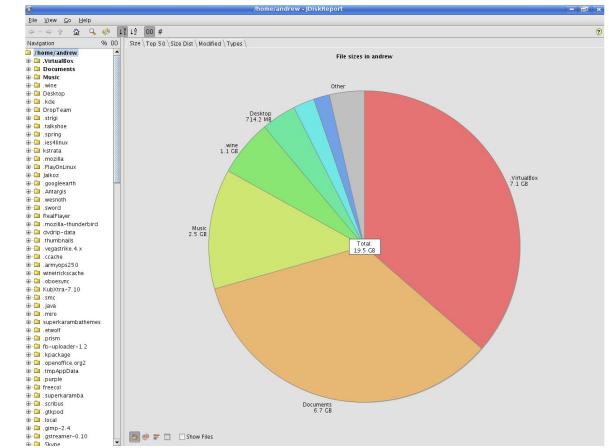
If you're a Gnome user but don't like the segmented rings, give *GdMap* a try. It's a very simple treemap analyzer built with Gnome. It analyzes only the file system and creates the output in a "square block" visualization (colored by filetype). Some may find it too basic, missing many features like the ability to delete or open the current file in a file manager. For the basic user or those who do not want to get confused, *GdMap* is the best option. In informal testing, it was by far the fastest as well.

To install *GdMap*, grab the ***gdmap*** package in the universe repositories.

Andrew Min has been a Linux addict since he first installed openSuSE in VMWare. Learn more about him at http://www.andrewmin.com/

JDiskReport

Homepage:
http://www.jgoodies.com/freeware/jdiskreport/

JDiskReport is a basic treemap analyzer that explains the usage of your disk-space. Written in Java, this cross-platform tool displays both Filelight-like pie charts and their corresponding directories. It also has a very useful "largest file" list, as well as several other handy graphs.

JDiskReport unfortunately doesn't have an Ubuntu package. However, you can easily run it as a Java Web Start applet or as a full-fledged Java program. Get both from the JGoodies download page at http://www.jgoodies.com/downloads/index.html. Note: you'll need to have Java installed. I didn't test it with any Java except Sun's.

HOW TO CONTRIBUTE

We are always looking for new articles to include in Full Circle. For article guidelines, ideas, and for issue translation, please see our wiki:
http://wiki.ubuntu.com/UbuntuMagazine

Please email your articles to: articles@fullcirclemagazine.org

If you would like to submit news, email it to:
news@fullcirclemagazine.org

Send your comments or Linux experiences to:
letters@fullcirclemagazine.org

Hardware/software reviews should be sent to:
reviews@fullcirclemagazine.org

Questions for future interviews should go to:
questions@fullcirclemagazine.org

Lists and desktop/PC photos should be emailed to:
misc@fullcirclemagazine.org

If you have questions, you can visit our forum:
www.fullcirclemagazine.org

Deadline for Issue #13:
Sunday 04th May.

Release date for issue #13:
Friday 30th May.

HAVE YOUR SAY

If you want to have your say on how Full Circle Magazine develops, please attend our monthly IRC meeting.

You can find our next Agenda at:

http://url.fullcirclemagazine.org/f2ba08

We want input from you, the reader, to help us make decisions that affect the magazine.

Next general meeting (all welcome):
Sat. 10th May.

Meetings take place in the IRC channel **#fullcirclemagazine**, which is on the irc.freenode.net server. Or you can use our webIRC page which is at http://irc.fullcirclemagazine.org and it will allow you to interact with our IRC channel from within your web browser.

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Compiled by Robin Catling

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Ubuntu for Photography
Scribus - Part 3

Review: Ubuntu on the Macbook
Preview: Compiz Fusion
My Story: A Year with Dapper
Ubuntu Youth
Website of the Month: Ubuntu Clips
My Desktop - Alex
My PC - Mark Pipkin
Top 5 Multimedia Encoders

Issue #04 – Aug '07

Flavor of the month: Edbuntu 7.04

How-To:
Hosting Code on LaunchPad
Keeping Kids Safe in Linux
Scribus - Part 4

Preview: Miro 0.9.8
Interview: Colin Watson
My Story: An Appropriate Name
Ubuntu Youth
Website of the Month: WINE
My Desktop - Javier Ravelo
My PC - Rob Kerfia
Top 5 Blogging Tools

Issue #05 – Sept '07

Flavor of the month: Fluxbuntu
How-To:
Report Bugs w/ LaunchPad
Edubuntu Glows
From VMware to VirtualBox
Scribus - Part 5
Preview: Gutsy Gibbon
Review: Bridge Construction Kit
My Opinion: Ubuntu Comparisons
My Story: My Transition
Ubuntu Youth
Website of the Month: Frank's Corner
My Desktop - Deepank Gupta
My PC - Nicola Cappellini
Top 5 Strategy Games

Issue #06 – Oct '07

Flavor of the month: 7.10 Upgrade
How-To:
Photoshop plugins in GIMP
Samba Setup
Scribus - Part 6

Interview: John Philips
Poll: Window Managers
My Story: My Transition
Ubuntu Youth
Website / Month: Ubuntu Tutorials
My Desktop - Martin Topping
My PC - Steve Barcomb
Top 5 Racing Games

Issue #07 – Nov '07

Flavor of the month: Ubuntu Studio

How-To:
Simply Install SSH
Terminal On Your Desktop
Convert From Windows
Scribus - Part 7
Review: Wubi Installer
Poll: Favourite Email Client
Interview: Howard County Library
My Story: Windows to Ubuntu
Ubuntu Youth / Sound Bites
My Desktop - Attila Solymossy
My Desktop - Chandra Sekar
Top 5 Audio/Video

Issue #08 – Dec '07

Flavor of the month: Mythbuntu
How-To:
Install Wubi
Christmas On Your Desktop
Multi Boot Linux
Scribus - Part 8

Review: Tomboy
My Opinion: Games? Where?
My Story: Ubuntu Analogy
Ubuntu Youth / Ubuntu Women
Sound Bites
My Desktop - Matthew Rossi
My Desktop - Dr Small
Top 5 Christmas Applications

Issue #09 – Jan '08

Flavor of the month: 7.10 OpenGEU
How-To:
Directory Server
Ubuntu on an iBook
Installing OpenTTD
Server Series - Part 1

Review: KDE 4.0
My Opinion: OpenGEU
My Story: My 2nd Apartment
Ubuntu Women / Ubuntu Youth
Sound Bites / My Desktop:
Lewis Vu / Irv Risch / Yuval Levental
Top 5 Download Managers

Issue #10 – Feb '08

Flavor of the month: Linux Mint
How-To:
Compile from Source
Install and Use Tuxpaint
Rip a DVD with AcidRip
Server Series - Part 2
Review: ASUS EEE
My Opinion: Indy Gave Dev
My Story: Why I went Linux
Interview: Steve Kowalik
Ubuntu Women /Ubuntu Youth
Sound Bites
My Desktop - Jonathan Riva
My Desktop - Fang Ji
Top 5 Chess Games

Issue #11 – Mar '08

Flavor of the month: Mint vs Ubuntu
How-To:
True Crypt on Ubuntu
Ipod Classic and Amarok
Introduction to LaTeX
Server Series - Part 3

Review: Lenovo 3000 C200
My Opinion: You Use Ubuntu not Linux
My Story: A Kid's Story
Interview: Andrea Veri, Behind MOTU
Ubuntu Women / Ubuntu Youth
My Desktop - Jozef Anon
My Desktop - Bob Cornero
Top 5 Platform Games

Issue #12 – Apr '08

Flavor of the Year: '07 - '08
How-To:
Deb Files
Server Series - Part 4
Ubuntu Disk Usage
Using GIMP - Part 1
Backup With Partimage
Review: Wiki on a Stick
My Opinion: WINE
My Story: One Year On
Interview: Travis Watkins, Behind MOTU
Ubuntu Women / Ubuntu Youth
My Desktop - Doug / Dan Cartis
Top 5 Disk Analyzers