Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

ISSUE #77 - September 2013

BOOK REVIEW

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ORGANISE YOUR PHOTOS

THIS TIME WE LOOK AT DIGIKAM

Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

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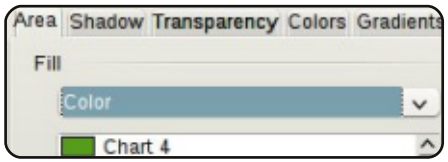

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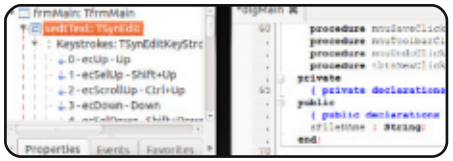

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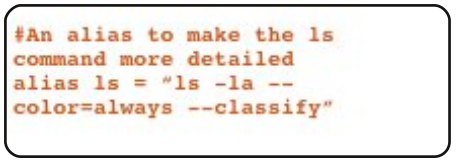

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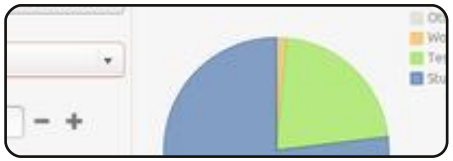

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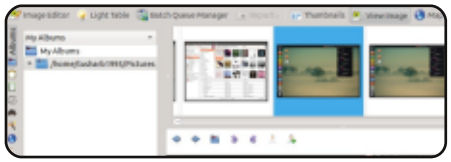

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EDITORIAL

Welcome to another issue of Full Circle!

As ever, we have a full house with Python, LibreOffice, Blender and Inkscape HowTo's. They're joined by a quick article on Lazarus – an IDE for the Pascal programming language. As the writer says, it's not the most well used of languages, but it's definitely still in use.

Last month's Software Showdown was on F-spot and Shotwell to help you organise your photographs. This month, it continues with a look at the fully featured behemoth, digiKam. If you need editing and geolocation features, then digiKam could be the one you're looking for.

If you've ever fancied having a media center in your household, then you may want to take a look at my review of Instant XMBC. It's a short, and pretty cheap, book – written by our own Linux Labs writer, Charles McColm. If you want to play/stream anything throughout your house then XBMC is probably what you'll want. And it comes as standard with XBMCbuntu. Handy!

I won't keep you any longer. Enjoy the issue, and keep those emails coming in!

All the best, and keep in touch!
Ronnie
ronnie@fullcirclemagazine.org

This magazine was created using :

Full Circle Podcast

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

Hosts:
- Les Pounder
- Tony Hughes
- Jon Chamberlain
- Oliver Clark

http://fullcirclemagazine.org

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UBUNTU NEWS

Written by The Ubuntu News Team

Call for Nominations to the LoCo Council

Pablo Rubianes writes that the LoCo Council are being faced with the task of replacing three of the current Council members and asks for volunteers to step forward and nominate themselves or another contributor for the three open positions. Pablo lists the requirements for nominees, how to apply and advises the dates that nominations will open and close.

http://lococouncil.ubuntu.com/2013/08/28/call-for-nominations-to-the-loco-council-2/

13.10 (Saucy Salamander) Beta 1 Released!

Kate Stewart announces the release of Saucy Salamander Beta 1, which will in time become the 13.10 release. Kate lists the participating flavors, links to the site where the images can be downloaded and points out "the Ubuntu products themselves will not have a Beta 1 release. Their first milestone release will be the beta release on the 26th of September 2013."

https://lists.ubuntu.com/archives/ubuntu-release/2013-September/002550.html

The Beta 1 release has been covered in blogs and news articles, the following is a sampling selected by our editors:

Ubuntu 13.10 Beta Releases Available for Download - http://www.omgubuntu.co.uk/2013/09/ubuntu-13-10-beta-1-released-available-for-download

Ubuntu 13.10 (Saucy Salamander), Beta 1 preview: Mir, Unity 7, kernel 3.11 - http://www.zdnet.com/ubuntu-13-10-saucy-salamander-beta-1-preview-mir-unity-7-kernel-3-11-7000020226/

Beta downloads released for Ubuntu GNOME 13.10, Lubuntu 13.10, Xubuntu 13.10 and Kubuntu 13.10 - http://www.itworld.com/open-source/371699/beta-downloads-released-ubuntu-gnome-1310-lubuntu-1310-xubuntu-1310-and-kubuntu-1

Welcome New Members and Developers

Results for the Kubuntu Developers meeting for September 13th, 2013 are as follows:

Kubuntu Developer application approved for **Howard Chan** - https://lists.ubuntu.com/archives/kubuntu-devel/2013-September/007355.html

Many Thanks to the Ubuntu News Team for their contribution this month.

News this month comes from:

https://wiki.ubuntu.com/UbuntuWeeklyNewsletter/Issue332
https://wiki.ubuntu.com/UbuntuWeeklyNewsletter/Issue333
https://wiki.ubuntu.com/UbuntuWeeklyNewsletter/Issue334
https://wiki.ubuntu.com/UbuntuWeeklyNewsletter/Issue335

Indiegogo campaign: http://play0ad.com/fundraiser

The [Indiegogo] campaign comes after years into development of the game, done almost entirely by dozens of volunteers. It is meant to sponsor paid work on crucial tasks deemed unlikely to recieve enough attention on a volunteer basis. The Indiegogo campaign for GNU/Linux, Windows and Mac OS X ends October 20th, 2013.

The developers of 0 A.D. hope to set an important precedent for software freedom in computer games. In the fundraiser pitch, they write that the gaming industry need not be dominated by closed-sourced, proprietary games.

The announcement of the fundraiser coincides with the release of "0 A.D. Alpha 14 Naukratis", the fourteenth alpha version of 0 A.D. Free downloads of the latest version for Windows, Linux and the Mac are available at http://play0ad.com/download/ .

0 A.D. original soundtrack (featuring live instruments, all entirely contributed by volunteers): http://play0ad.bandcamp.com/

Top features:

• 100% free, open-source software: 0 A.D is free of charge and always will be. It is also completely free to redistribute and mod under the GPL. No "freemium" model, no in-game advertising, no catch.

• Cross-platform: 0 A.D. runs on Windows, Linux and Mac OS X.

• 12 civilizations: Each has unique appearance and gameplay, including units, structures, and technology trees.

• Citizen soldiers: Some infantry and cavalry units can not only fight, but also gather resources and construct buildings, making them substantially more versatile than in typical RTS games.

• Combat experience matters: The more time your citizen soldiers spend fighting your enemies, the higher they go up the ranks. With each rank, they become stronger, but they also get worse at civilian tasks.

• Technology tradeoffs: Some technologies are arranged in pairs, and within each pair, you can only research one technology at most in each game. This choice is irreversible, so choose carefully!

• Excellent moddability: From new computer opponent behaviors to extra civilizations, easily create your own modifications (mods) of 0 A.D. by editing game files, all freely available in standard, open formats.

About 0 A.D.

0 A.D. (pronounced zero-ey-dee) is an open-source war/economy RTS game featuring several ancient civilizations at their prime, from Greece and Rome to Carthage and Persia. 0 A.D. is under development by Wildfire Games, an international team of volunteers. It will always be available free of charge and its development process is open for all to see and participate in.

Contact Wildfire Games: 0ad@wildfiregames.com.

Last month, I introduced readers to the newly minted github repository that contained the CLI Cookbook I put together with input from our readers. Since then, I've had some activity from readers – fixing mistakes and adding content. However, in doing so, I realized I never included information on keeping your local fork synchronized with my master branch – which makes handling pull requests very difficult for me, as I have to manually carry over any changes. As such, I will briefly cover fetching upstream changes.

Steps 1-3 are required when you first set up your repository on the local system. Step 4 is the command you want to run for pulling in upstream updates. As such, the first time you do this, follow all 4 steps, but after that you can jump right to Step 4.

Step 1

Fork the repository (on github simply click the fork button on the repository you want to fork).

Step 2

Get a local copy of the fork going.

```
git clone
https://github.com/<username>
/<repo name>.git
```

Replace <username> with your actual user name, and <repo name> with the name of the repository.

Step 3

Configure upstream (remote repository).

```
cd <repo name>

git remote add upstream
https://github.com/lswest/cli
-cookbook.git
```

Replace <repo name> with the name of your local fork. The second command creates a new repository alias in the configuration file for the local fork (located in the .git folder). The URL will need to be changed according to what repository it is you forked.

Step 4

Now if you want to pull in any new changes from the original repository, all you need to do is this:

```
git fetch upstream

git merge upstream/master
```

This fetches any commits to the original repository, and the second command merges them into your local copy. If you have changes going in your local fork that don't exist in the original, and try to fetch updates, it will result in conflicts. The easiest way to resolve these is to use the following command:

```
git mergetool
```

This should take you through each conflict step by step (it's extremely useful to have some knowledge of diff, as it is the general format used for conflicts).

As you can see – this isn't an extremely complicated process. The key point is how to register the original repository as upstream, after which it progresses as you might imagine. Unfortunately, this won't completely negate the need to resolve conflicts; however, it will cut down on the amount of conflicts I will have to manage on the master branch, and should therefore allow me to handle any pull requests quickly.

I hope this has helped explain how to keep your forks up to date – and is the start of plenty more additions to the CLI Cookbook! Thanks to anyone who has contributed so far (either in the Google Doc or the Github repository). If you have any questions, or suggestions, feel free to email me at lswest34+fcm@gmail.com.

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

Programming In Python - Part 47

Last month, we discussed using sets to show us missing episode numbers. Now's the time to put the rough code we presented into practice.

We'll modify one routine and write one routine. We'll do the modification first. In the working file that you've been using the last few months, find the WalkThePath(filepath) routine. The fourth and fifth lines should be:

```
efile =
open('errors.log',"w")

for root, dirs, files in
os.walk(filepath,topdown=True
):
```

In between these two lines, we will insert the following code:

```
lastroot = ''

elist = []

currentshow = ''

currentseason = ''
```

By now, you should recognize that all we're doing here is initializing variables. There are three string variables and one list.

```
for root, dirs, files in os.walk(filepath,topdown=True):
    for file in [f for f in files if f.endswith (('.avi','mkv','mp4','m4v'))]:
```

We will use the list to hold the episode numbers (hence the elist name).

Let's take a quick look and freshen our memory (above) about what we're doing in the existing routine before we modify any further.

The first two lines here set things up for the walk-the-path routine where we start at a given folder in the file system and recursively visit each folder below, and check for files that have the file extension of .avi, .mkv, .mp4 or .m4v. If there are any, we then iterate through the list of those filenames.

In the line above right, we call the GetSeasonEpisode routine to pull the series name, season number and episode number from the filename. If everything parses correctly, the variable isok is set to true, and the data we are looking for is placed into a list and then

```
# Combine path and filename to create a single variable.
fn = join(root,file)
OriginalFilename,ext = os.path.splitext(file)
fl = file
isok,data = GetSeasonEpisode(fl)
```

returned to us.

Here (below) we are simply assigning the data passed back from GetSeasonEpisode and putting them into separate variables that we can play with. Now that we know where we were, let's talk about where we are going.

We want to get the episode number of each file and put it into the elist list. Once we are done with all the files within the folder we are currently in, we can then make the assumption that we have been pretty much keeping up with the files and the highest numbered episode is the latest one available. As we discussed last month, we can then create a set that is numbered from 1 to the last episode, and convert the list to a set and pull a difference. While that is great in theory, there is a bit of a "hitch in our git-a-long" when it comes down to actual practice. We don't actually get a nice and neat indication as to when we are done with any particular folder. What we do have though, is the knowledge that when we get done with each file, the code right after the "for file in [..." gets run. If we know the name of the last folder

```
if isok:
    showname = data[0]
    season = data[1]
    episode = data[2]
    print("Season {0} Episode {1}".format(season,episode))
```

visited, and the current folder name, we can compare the two and, if they are different, we have finished a folder and our episode list should be complete. That's what the 'lastroot' variable is for.

Just after the 'for file in[' line is where we'll put the majority of our new code. It's only seven lines. Here are the seven lines. (The black lines are the existing lines for your convenience.)

Line by line of the new code, here is the logic:

First, we check to see if the variable lastroot has the same value as root (the current folder name). If so, we are in the same folder, so we don't run any of the code. If not, we then assign the current folder name to the lastroot variable. Next, we check to see if the episode list (elist) has any entries (len(elist) > 0). This is to make sure we weren't in an empty directory. If we have items in the list, then we call the Missing routine. We pass the episode list, the highest episode number, the current season number, and the name of the season, so we can print that out later on. The last three lines clear the list, the current show name, and the current season, and we move on as we did before.

```
    for file in [f for f in files if f.endswith (('.avi','mkv','mp4','m4v'))]:
        # Combine path and filename to create a single variable.
        if lastroot != root:
            lastroot = root
            if len(elist) > 0:
                Missing(elist,max(elist),currentseason,currentshow)
            elist = []
            currentshow = ''
            currentseason = ''
        fn = join(root,file)
```

Next we have to change two lines and add one line of code into the if isok: code, a few lines down. Again, right, the black lines are the existing code:

Here, we have just come back from the GetSeasonEpisode routine. If we had a parsable file name, we want to get the show name and season number, and add the current episode into the list. Notice, we are converting the episode number to an integer before we add it to the list.

```
        isok,data = GetSeasonEpisode(fl)
        if isok:
            currentshow = showname = data[0]
            currentseason = season = data[1]
            episode = data[2]
            elist.append(int(episode))
        else:
```

We are done with this portion of the code. Now, all we have to do is add the Missing routine. Just after the WalkThePath routine, we'll add the following code.

Again, it is a very simple set of code and we pretty much went over it last month, but we'll walk through it just in case you missed it.

We define the function and set up four parameters. We will be passing the episode list (eplist), the number of episodes we should expect (shouldhave) which is the highest episode number in the episode list, the season number (season), and the show name (showname).

Next, we create a set that contains a list of numbers using the range built-in function, starting with 1 and going to the value in shouldhave + 1. We then call the difference function – on this set

```
#---------------------------------
def Missing(eplist,shouldhave,season,showname):
    temp = set(range(1,shouldhave+1))
    ret = list(temp-set(eplist))
    if len(ret) > 0:
        print('Missing Episodes for {0} Season {1} - {2}'.format(showname,season,ret))
```

and a converted set from the episode list (temp-set(eplist)) – and convert it back to a list. We then check to see if there is anything in the list – so we don't print a line with an empty list, and if there's anything there, we print it out.

That's it. The one flaw in this logic is that by doing things this way, we don't know if there are any new episodes that we don't have.

I've put the two routines up on pastebin for you if you just want to do a quick replace into your working code. You can find it at http://pastebin.com/XHTRv2dQ.

Have a good month and we'll see you soon.

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

ubuntu uk podcast

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

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

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

podcast.ubuntu-uk.org

Python Special Editions:

http://fullcirclemagazine.org/issue-py01/

http://fullcirclemagazine.org/issue-py02/

http://fullcirclemagazine.org/python-special-edition-issue-three/

http://fullcirclemagazine.org/python-special-edition-volume-four/

http://fullcirclemagazine.org/python-special-edition-volume-five/

http://fullcirclemagazine.org/python-special-edition-volume-six/

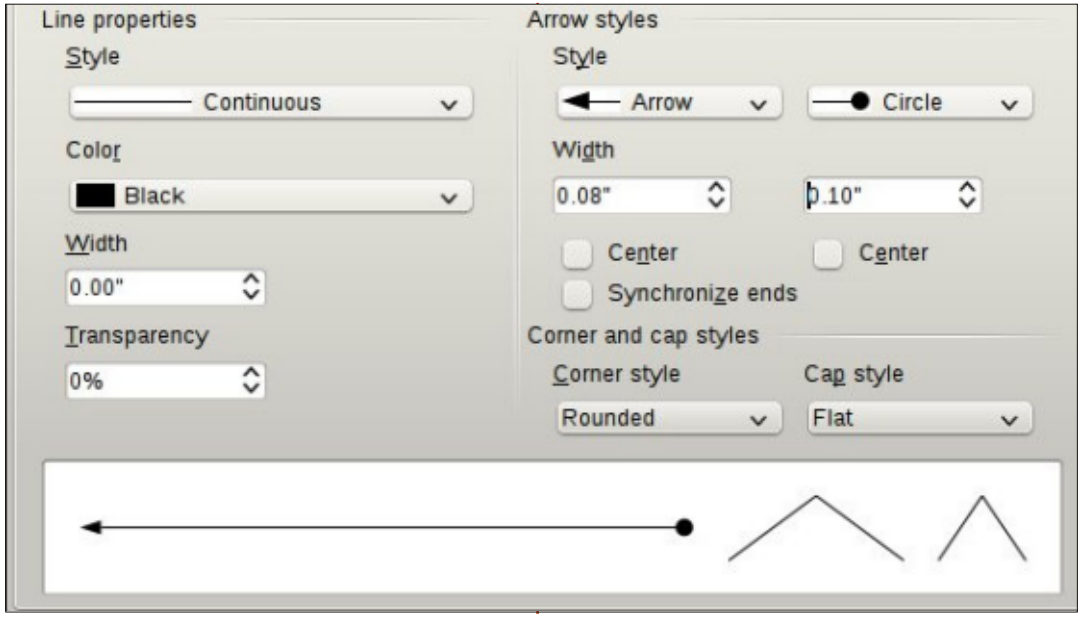
LibreOffice Pt30: Draw/Edit Objects

When working with physical blocks, you sometimes need to change the shape of a block, customizing it for a special purpose. You may use a plane or sandpaper to make a side slant or to round an edge. You might use a saw to whack off a corner. All to create a special custom block unlike any other block in your collection.

Sometimes, we need to do the same with our digital blocks. The editing tools built into LibreOffice Draw become our digital plane, sandpaper, and saw. In fact, you can do things I never dreamed of doing to my blocks as a child.

The Line Dialog

The Line dialog lets you edit the look of the lines in your object. To access the Line dialog, right-click your object and select Line. From here, you can change the style of the line (solid, dashed, dash-dot, etc.), the color, width, and transparency. You can also add arrow styles to the start and end of your line. Keep in mind that for

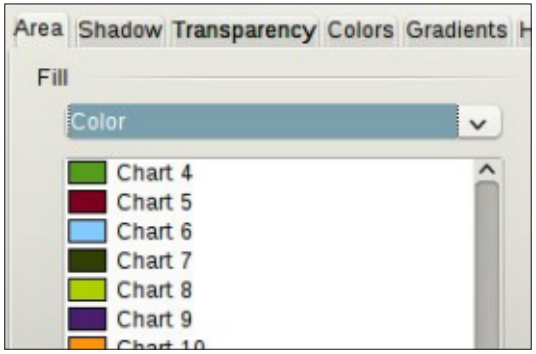


enclosed objects (triangles, squares, circles, etc.), arrows are not drawn on the lines. Underneath the arrow styles, you can adjust the width of the arrow. Center places the center of the arrowhead(s) on the endpoint(s) of the selected line. Synchronize ends automatically updates both arrow heads when you change the style, width, or center of one of the ends. Corner style controls how the corner of your object is drawn. Cap style controls how the endpoints of lines without arrows will look.

If you are working with an open object, you get a shadow tab. This allows you to create a shadow for the line by defining the position, distance, color, and transparency of the shadow.

The Line Styles and Arrow Styles tabs allow you to add, modify, delete, and save different line and arrow styles. You can play around with these, but usually you can find what you need in the predefined styles. If not, feel free to create your own.

Area Dialog



The Area dialog applies to objects that are enclosed, and deals with the space inside the object. You can change the color of the fill as well as the manner in which the object is filled. To access the Area dialog, right-click the object and select Area.

The Area tab controls what fills the object. You can choose from color, gradient, hatching, and bitmap in the Fill drop-down list. Once you have selected the type of fill, you can select a fill from the list. The preview box shows you the result of your selections.

The Shadow tab allows you to add a shadow under your object. Check Use shadow to create a shadow. The position determines the location of the shadow, and

the distance how far from the object. Color determines the color of the shadow, and transparency sets the opacity of the shadow.

On the Transparency tab, we determine the opacity of the fill of the object. We have three options for the transparency of the fill. No transparency means the fill is completely opaque. With transparency, you can set a percentage for the whole area. Gradient is the option with the most settings and the chance to create the most interesting effects. You have six choices for the gradient types, linear, axial, radial, ellipsoid, quadratic, and square. For all except the linear and axial, you can control the XY center of the gradient. The XY center is the point where the object is the clearest, or most transparent. Except for the radial, you can also define an angle for the gradient area. The border

setting reduces the size of the transparent area. The bigger the percentage, the smaller the transparent area. Use the start and the end values to change the beginning and ending opacity levels. For example, if you don't want any totally clear places on your object, you can start with a value of 10 or 15%.

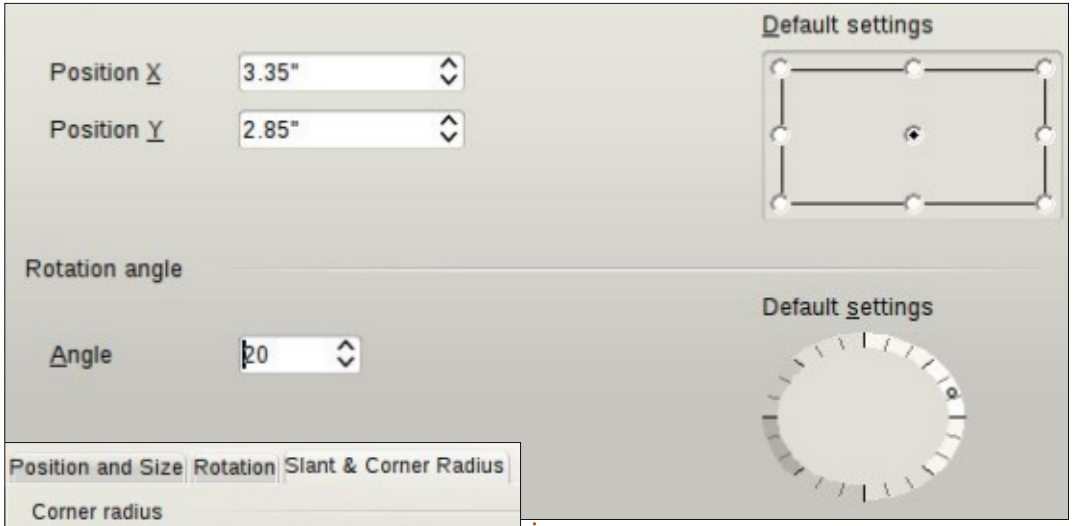
The colors, gradients, hatching, and bitmaps tabs allow you to create new fill styles by defining new colors, gradients, hatchings, and bitmaps.

Position and Size Dialog

Besides controlling the position and size of an object, the position and size dialog also allows you to control the rotation, slant, and corner radius of an object. To access the Position and Size dialog, right-click your object and select Position and Size.

The Position and Size tab does what you would expect. You can control the XY position on the canvas of the object, and its width and height. The base point for each of the options gives nine points on the object from which position or size is calculated. There is a Keep ratio checkbox under size to help maintain the aspect ratio of the object (any change in height will create a change in width and vice versa). You also have options to protect the position or size to prevent accidentally changing them. The adapt option only relates to text frames and allows you to fit the width and/or height to match the text.

On the Rotation tab, you can control the rotation of the object. This is usually much more accurate than using the rotation tool. You can select the pivot point through the input boxes, or by selecting a pivot point on the Default settings box. Select your angle through the input box or by selecting a point on the angle Default settings compass.



Finally, the Slant & Corner Radius tab allows you to control the roundness of the corners and the slant (think italics text). Think of the corner radius as using sandpaper to round off a corner. The more you sand, the rounder the corner. The bigger the number, the rounder the corner. If you set the corner radius high enough on a rectangle, it will become an oval. The slant, given as an angle, skews the object to the right for a positive angle and to the left for a negative angle. Using the corner radius and slant, you can get some interesting shapes. The corner radius is blocked for some objects.

Arrange, Align, Flip, Convert

Sometimes, it just becomes necessary to stack objects, make them line up, mirror them, or just convert them into something that you can edit in a different way. All the following commands are found by right-clicking the object. They are also available in the Modify menu.

The arrange options allow you to control the stack position of objects. When you have multiple objects which overlap, you may need to change the order in which they are stacked. By default, they stack in the order in which they were created, the last on top. Using the arrange options, you can push objects forward or backward in the stack until you get the results you want.

Align allows you to align objects in reference to each other or to the page. If you have only one object selected, the object will align to the current page. If more than one object is selected, they will align according to each other. The larger of the objects usually controls the final location, and the other objects are moved to align to the selected position of that object. The alignment options are left, right, horizontal center, vertical center, top, and bottom. Draw has an align toolbar in addition to the right-click menu and Modify menu.

The flip options are straightforward. You can flip an object vertically (top to bottom) or horizontally (left to right).

There are many options under the right-click > Convert option, but one in particular that I want to draw your attention to, Convert > To Curve. By converting any object to a curve, you can edit the points within that object, allowing you to achieve completely original shapes. Once an object is a curve, you can add points, remove points, and use the point transition tools on the points of the object. Turn a rectangle into a curve, then start adding, moving, and manipulating the points, and see what you can create.

Conclusion

The options in Draw for editing an object are numerous. By applying the right tools to an object, you can create almost any shape you can imagine (maybe a few you never imagined). I encourage you to play with these tools and see what you can come up with. You never know, you might discover that little piece of artist or designer in you.

Elmer Perry's history of working, and programming, computers involves an Apple][E, adding some Amiga, a generous helping of DOS and Windows, a dash of Unix, and blend well with Linux and Ubuntu. He blogs at http://eeperry.wordpress.com

In my early days of IT, one of the many languages I programmed in was Pascal. In my Windows days, I did play around with Delphi, but never really did much with it, and have really lost most of my knowledge of Pascal.

Lazarus is a RAD tool (rapid application development) for the Free Pascal compiler. It is available for Linux, OS X, and Windows. Lazarus is designed to be somewhat compatible with Delphi for Windows, but it is not a complete clone. Free Pascal uses a similar dialect for Object Pascal as Delphi.

As you can see, Lazarus looks like many modern RAD tools, and it works the same. You create applications by designing your forms and attaching your event code for the various controls. It provides a visual form designer, object inspector, code editor, code completion, and debugger.

For those of you unfamiliar with Pascal, here (above right) is a small sample (console based).

Besides all of the standard controls that you can add to your forms – such as text fields, labels, buttons, and checkboxes, Lazarus includes components to access various databases, access XML files, use HTML help files, produce charts, and many more.

You can also create console applications with Lazarus. When you choose to create a new project, a dialog box will pop up asking for the type of project.

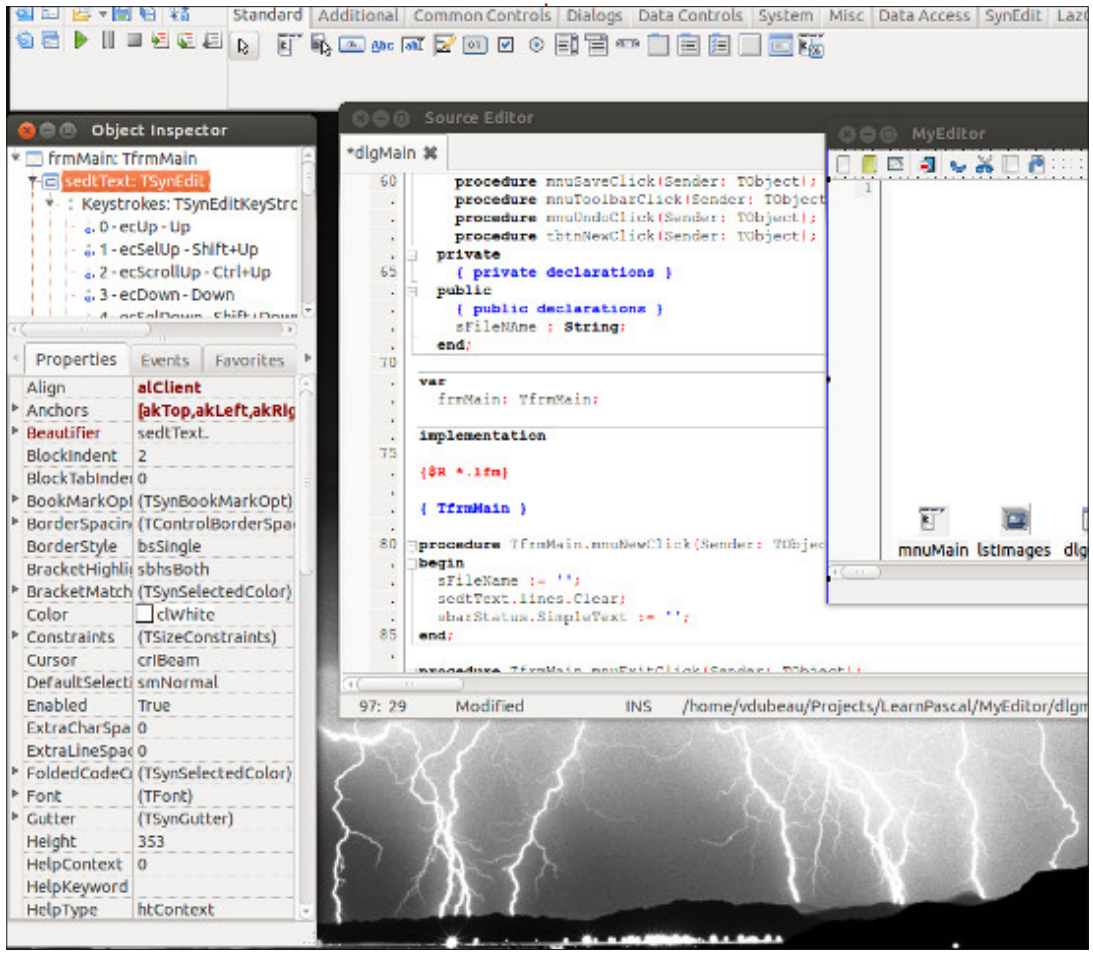
Installing Lazarus

Don't use the Ubuntu Software Center to get the files. It is several versions behind. You need to download three files from Sourceforge:

For the 32-bit files:
http://sourceforge.net/projects/lazarus/files/Lazarus%20Linux%20i386%20DEB/Lazarus%201.0.8/.

For the 64-bit files:
http://sourceforge.net/projects/lazarus/files/Lazarus%20Linux%20amd64%20DEB/Lazarus%201.0.8/

```
program Hello;
const
    Greeting = 'Hello, ';
var
    Name : string;
begin
    writeln('Please enter your name: ');
    readln(name);
    writeln(Greeting, Name);
end.
```



You can then install them with the software center, synaptic, or gdebi.

I have the impression they need to be installed in the following order:
fpc
fpc-src
lazarus

Pros:
• An excellent RAD/IDE to create your own applications.
• With the appropriate tools installed, you can compile a Windows version of your application under Linux.
• Good for Delphi programmers looking to move to Linux.

Cons:
• None found yet.

You may be asking "Why learn a dead language like Pascal?" While I agree that Pascal is not very popular, it is far from dead. I worked on mainframes and minicomputers for many, many years using Fortran, COBOL, and RPG. Pundits had these languages killed off years ago but they are still alive and thriving. I will agree however that Pascal is not in the mainstream. Languages like C/C++, Python, Ruby and Microsoft's Visual Basic/.Net are way ahead, Pascal is a clean, easy to use, and fun language.

If you want something to learn with, or to get your feet wet using a decent RAD tool, Lazarus/Free Pascal is great to start with, and it's free.

Useful links:

Free Pascal project:
http://www.freepascal.org/

Lazarus:
http://www.lazarus.freepascal.org/

Books for learning Lazarus/Free Pascal:
http://rimrocksoftware.com/zips/Rapid_Application_Development_in_Linux_Using_Lazarus.pdf

Vince is a Linux and OSS advocate… trying to advocate the advantages of Linux over Windows to local users and businesses.

LibreOffice Special Editions:

http://fullcirclemagazine.org/libreoffice-special-edition-volume-one/

http://fullcirclemagazine.org/libreoffice-special-edition-volume-two/

http://fullcirclemagazine.org/libreoffice-special-edition-volume-three/

Inkscape Special Editions:

http://fullcirclemagazine.org/inkscape-special-edition-volume-one/

http://fullcirclemagazine.org/inkscape-special-edition-volume-two/

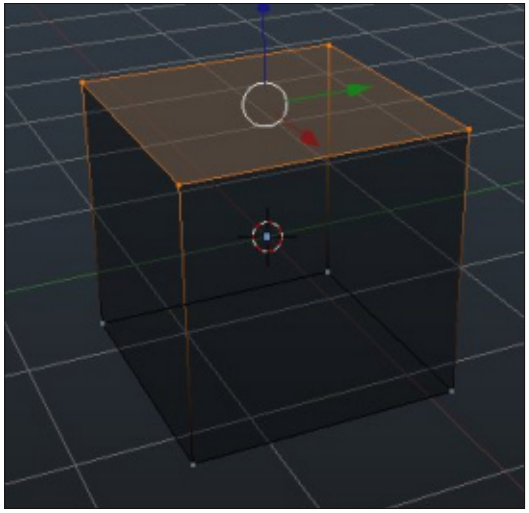
Blender: Part 8

Last month, we introduced SubsSurf (Subdivision Surface), a very useful modifier to create smooth, high quality models. You have to practice a lot to get familiar with this tool to reveal its powers. Let's see some examples

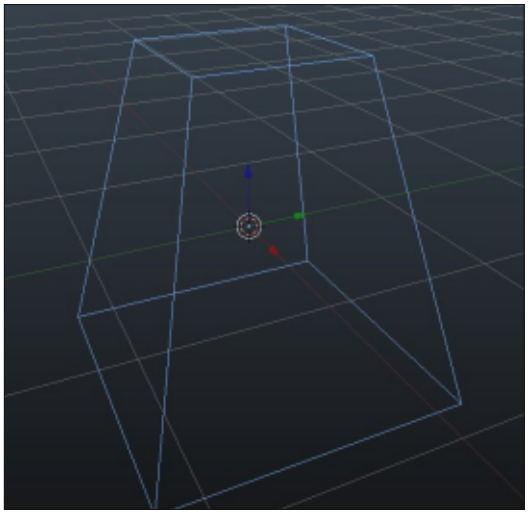
Create an egg

Start a new project in blender and add (if it's not already present) a cube.

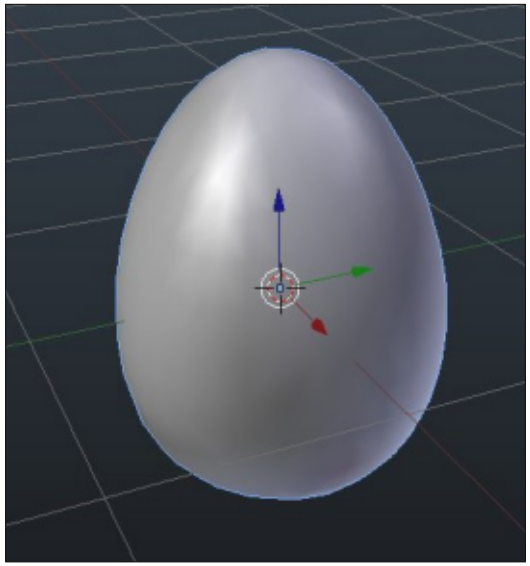
With the mouse in the 3d view window, press the tab key to enter edit mode. Press the A key to deselect all vertices and select the four upper vertices.



Press the S key and 0.5 to scale down the selected face by 50%. Then press the G key (G for Grab) and 0.1 to move the selected face up. We have something like a Mayan pyramid now. Press the tab key to exit edit mode and return to object mode.



This is the power of Subsurf – from a pyramid we can have an egg! Now go to the properties panel on the right and select the modifiers tab indicated by a wrench to access the subsurf modifier. Add the modifier, and increase the View and Render values to 3. On the left, under the objects tools tab, apply the smooth shader. We got an egg.



Tip: The "non-destructive way" is something that you can get when you use modifiers. You create an object by using a modifier, but, if you decide not to use the modifier, it's very easy just to delete the modifier or alter it. The actual starting model is there "underneath" your effects. When you hit apply under the modifier's tab, you "destroy" this functionality.

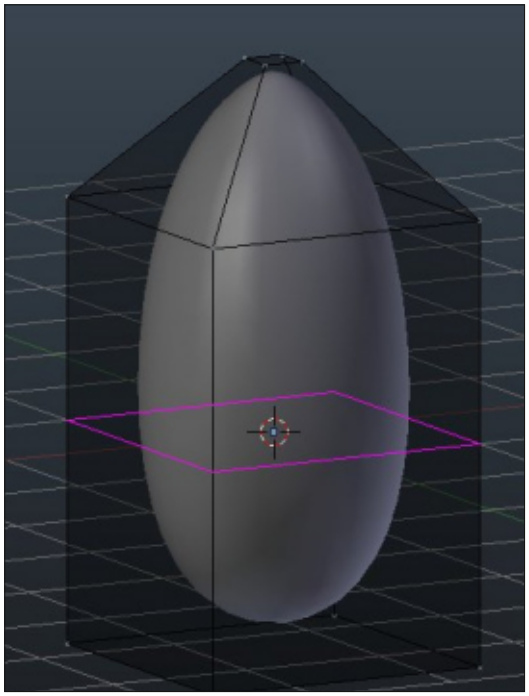
OK. We have seen subsurf in a non-destructive way. Now we can see what mesh we can actually create by applying our modifier to the models.

Create a bullet

To tell you the truth, I'm not a big fan of guns and bullets. But, when you have to model an object, you have to know what it looks like. Thank God we have google and a lot of image banks for that. So, after some clicks, I found a bullet image to work with. (In the next article I'll show you how we use images as a blueprint to model objects).

Let's start a brand new project with a cube in it. On the cube, add a subssurf modifier, and increase View and Render to 3. Press S to scale your cube, Z for the Z axis, and 1.5 for the scaling. Press the tab key for edit mode. Select the four upper vertices and press the E key for extrude. Around 1 will be fine. Press Ctrl-R for an edge loop-cut. You must have something like

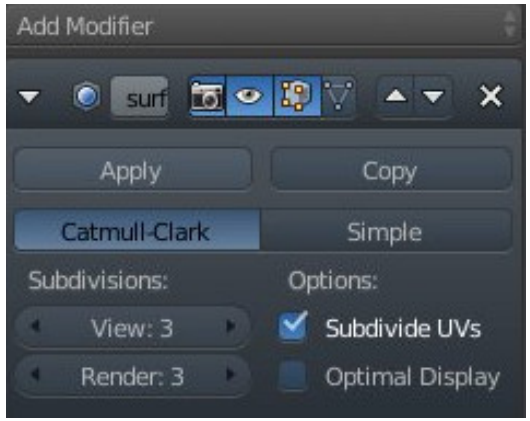
the image below.

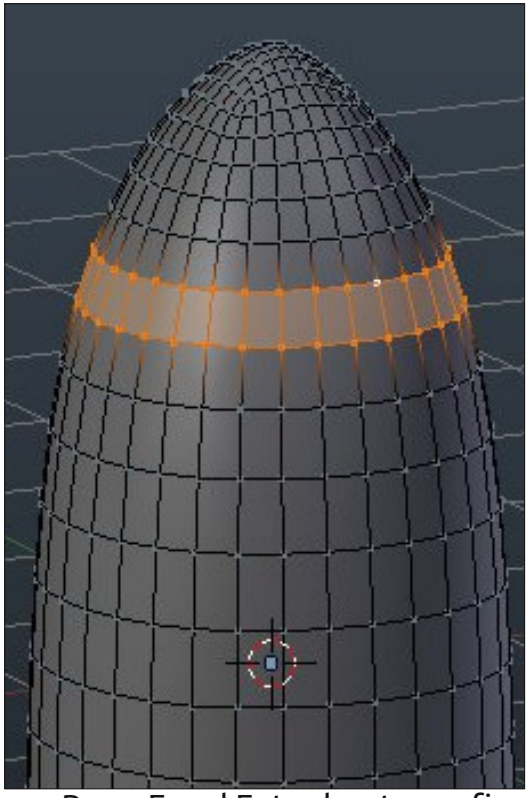


As you press the mouse button to accept the loop-cut, move it down – near the base of your model. Notice that the modified object changes its shape. Switch to object mode to apply the modifier. Now we can accept the modifier by clicking Apply under the modifier's tab.

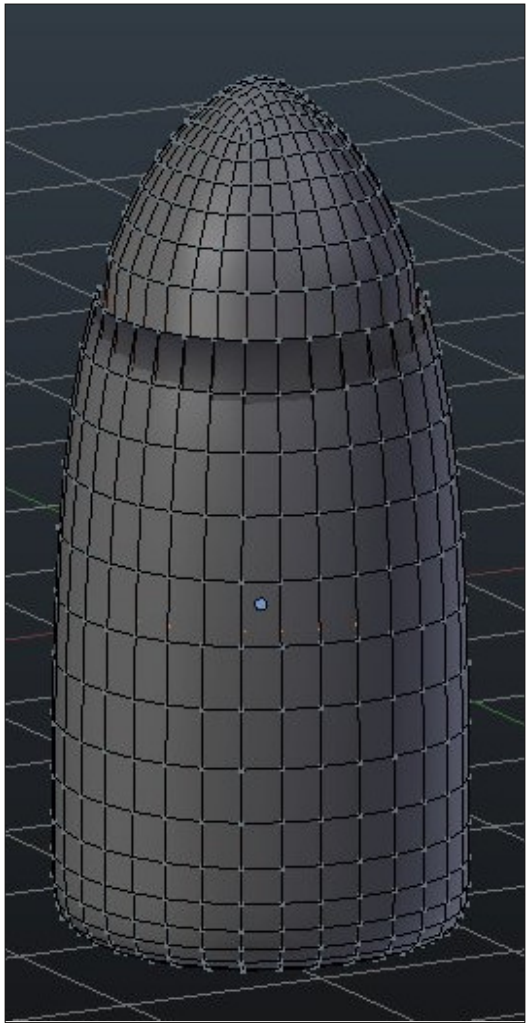
Go back to edit mode to see what just happened. We have a mesh created by subsurf modifier!

Press Alt-Ctrl-R for edge ring selection.





Press E and Enter key to confirm the extrusion. Press S to scale your selection a very little bit. Press G to move your selection down almost at the center of your bullet. Scale it up a little to create something like the image below.



Ok. We have a basic shape of a bullet. Adjust anything you like, start a new project and create a rocket or something using the subsurf modifier. When you are happy with your modified shape, apply the modifier and continue from there to finish your project. Remember that when you apply a modifier, you have a new mesh and you can re-apply a modifier if you like. In a later stage we can talk about modifiers stuck and how it works.

Next month, we will introduce Bezier curves, and I'll model my favorite team's logo.

For this month, I can suggest blendswap.com community. 3D artists around the world can post their work in blender there and have actual job opportunities!

Nicholas lives and works in Greece. He has worked for a post-production house for several years and migrated to Ubuntu because “it renders faster.” You can email him at: blender5d@gmail.com

Inkscape - Part 17

Written by Mark Crutch

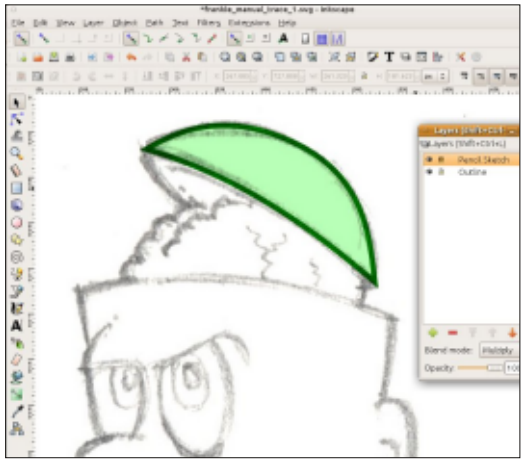
Having manually traced a logo in the previous instalment, this time we're going to trace something a little different: a hand-sketched comic-book character. The basic principles are the same as before, but working from a sketch will allow us a little more freedom than rigorously reproducing a logo.

The first step is to obtain a suitable image for tracing. If your drawing skills are as bad as mine, then I suggest finding someone who knows what to do with the pointy end of a pencil to give you a hand. In my case, I've called on Vincent Mealing – the co-creator of my webcomics – to create a headshot of "Frankie", a character from our "Monsters, Inked" strip.

After scanning and saving the sketch as a JPEG image, dragging it into Inkscape presents the familiar import dialog. As usual, I chose to link to the image, because it's only a temporary addition to the file. Locking the layer prevents the sketch accidentally being moved or selected. With that layer locked, we need to create another layer to actually draw on. When tracing a logo or photograph, I prefer to draw on a layer above the bitmap. For tracing a pencil sketch, however, it's often easier to place your drawing layer below.

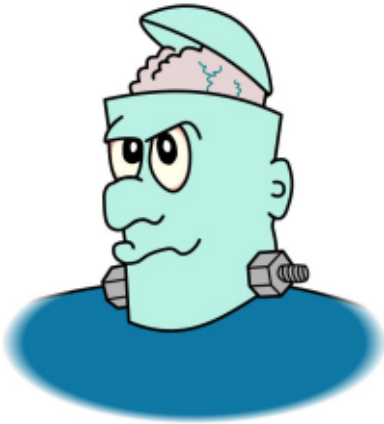
The obvious problem with drawing below the sketch is that the white background of your scanned image will obscure anything that you draw. The solution to this is to set the Blend Mode of the Pencil Sketch layer to "Multiply". Anything you draw on the lower layer will show through the background, but your pencil marks will still be visible on top to help guide you.

With those preparations in place, it's time to start drawing. Here, I've used the Bézier tool ("B" or Shift-F6) to draw part of Frankie's skullcap. You can clearly see how the pencil marks are still visible, making it easy to trace the lines of the sketch.



You can continue tracing the sketch using the Bézier tool, and tweaking the paths with the Node tool ("N" or F2) to quickly produce an acceptable result. Depending on the style you want for your final image, a simple trace such as this might be all you need to do, or you might want to add highlights, shadows, gradients and textures to give it a little more depth.

Tracing or drawing using simple objects and paths can sometimes feel a bit sterile. Lines that keep the same constant width don't add much character to a drawing, and optical tricks like fading out lines using a stroke gradient quickly lose their effect at large sizes. As is so often the case, Inkscape is constrained by the SVG format, which doesn't contain any notion of variable line thickness. Despite this omission, Inkscape does have a few ways to create more dynamic and variable lines, but each approach comes with compromises in order to maintain SVG compatibility.



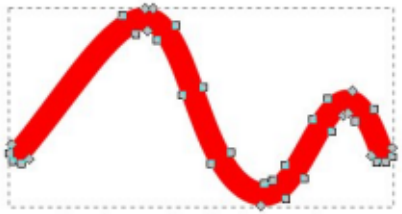
The biggest compromise – shared by all these methods – is

that you can no longer create a filled path with a stroke, and instead have to create two separate objects, one for the outline and another for the fill. Your outline will no longer be a simple stroke, but will itself be a filled path. If you modify the shape of your outline, you'll need to also change the shape of the fill to match, so I recommend just drawing your outlines at first and then only adding fills once you're happy with your final design. This should all become a little clearer as we progress through some examples.

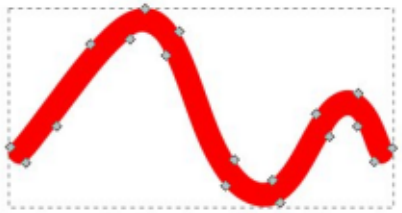
An easy way to tweak the thickness of your outlines is to draw them as strokes, then convert the strokes to paths using the Path > Stroke to Path menu item, or CTRL-ALT-C keyboard shortcut. The effect of this is most obvious if you look at a thick stroke before and after conversion, using the node tool.

The first image shows the original stroke – a simple squiggle with only four nodes, and a constant width. By converting the stroke to a path we end up with a filled object that matches the shape and size of the original,

Stroke: 4 nodes



Stroke to Path: 29 nodes



Stroke to Path, simplified: 18 nodes

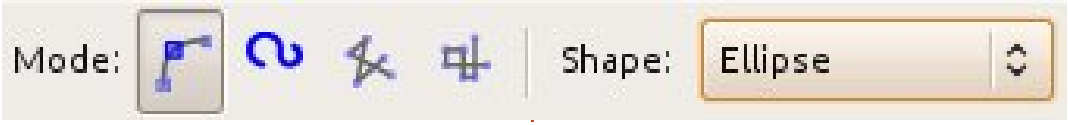
except now the number of nodes has increased significantly. In this case, it's obvious that some of those 29 nodes aren't really required and can be deleted. You can perform this operation manually if you want precise control over the outcome, but Inkscape also offers an automated option in the form of the Path > Simplify menu option (CTRL-L).

Using Simplify once will try to reduce the number of nodes without changing the shape or size of your path too much. Pressing it repeatedly will try to reduce the number further, taking more and more liberties with the shape as it does so. Sharp corners tend to be the first to suffer, but if you keep pressing CTRL-L frequently enough you'll ultimately end up with something that bears little resemblance to the path you started with. Using the Simplify command is therefore a trade-off between fidelity to the original shape, and the number of nodes you're left with. If the Selection tool is active, you can keep an eye on the number of nodes in the Status Bar at the bottom of the Inkscape window. If you go too far, Edit > Undo (CTRL-Z) will take you back in the opposite direction – press it enough and you'll eventually get back to the original stroke.

In this case, pressing CTRL-L just once was sufficient to reduce the node count from 29 down to a more manageable 18. Manually adjusting the positions of those nodes gives us the variable width outline we're looking for, as you can see in this second pass at Frankie's skullcap.

As you might imagine, converting your strokes to paths, and then manually editing every node, can be extremely time consuming – however, if you have the patience and skill, it's the best way to have complete control over your drawing.

Inkscape does have a quicker way to achieve a similar result, by letting you select from a few preset path shapes when you draw your line. “Few” is the important word here: currently your choice is limited to three predefined shapes – two of which are essentially the same – although you can use a path from the clipboard if you want something different. To activate this feature, when drawing a Bézier curve, use the “Shape” drop-down on the tool control bar to select “Triangle In”, “Triangle Out”, or “Ellipse”.



The first two will both draw your path as a triangle. The difference is simply whether the wide end is at the start of your line and the pointed tip is at the end, or vice versa. “Ellipse” draws your path as an ellipse – fatter in the center and thinner at the ends. “None” turns off the shaped lines entirely, taking you back to drawing normal strokes.

Unfortunately, there's no simple way to adjust the width of the triangle's base or the ellipse's center, so these shapes can be a bit too heavy for some lines, and a bit too light for others. Using just these shapes gives us another variation of Frankie's head to consider.

Inkscape's tiny palette of line shapes is a real issue compared with other competing applications. Triangles are okay, but what if you don't want your line tapering to nothing? And whilst an ellipse lets you create lines that bulge in the middle, it's no use if you want one that thins in the middle instead.

Although it's not possible to add your own shapes to the drop-down menu, the “From Clipboard” option does at least offer some additional flexibility that lets you work around the limited list of defaults. In order to use this, you first need to create a path that will be used as your line's shape. In order to create a line that thins in the middle, for example, you require a shape that thins in the middle: a smoothed out dog bone or bow-tie design.

This path will be stretched to cover the length of your Bézier curve, so make sure you draw it at the right sort of scale for your image. When you're ready, you have to put it on the clipboard by selecting it and either copying (Edit > Copy or CTRL-C) or cutting (Edit > Cut or CTRL-X). Now select the Bézier tool again, change the Shape drop-down to “From Clipboard”, and draw your curve as usual.

You can continue to draw new curves, and they'll all use the same shape, until something replaces it on the clipboard. Because of this I prefer to copy, rather than cut, in case I need to put the shape back on the clipboard later. In practice, there's no live connection between the shape path and the Bézier curve, so once you're finished with it, you can safely remove the shape from your drawing without any change to the shaped curves you've created.

Once again we'll use Frankie's cranium to demonstrate the result. I've left the original bow-tie in view to make it clear how the thickness of the final curve relates to the size and shape of the path.

You can, of course, mix and match various shaped paths within a drawing. Looking back at the examples, it's clear that different parts of the image work best with different shapes. Whether you use triangles, ellipses, or the clipboard, you can select the shaped curve and use Path > Object to Path (CTRL-SHIFT-C) in order to create a path that is more suited to manual editing. Note that you don't use Stroke to Path in this case, because the shaped Bézier is implemented as a closed path, not a simple stroke – and don't forget to keep an eye on the number of nodes created, and Simplify if necessary.

As you might expect, the features introduced in this article apply to more than just manual tracing of comic characters. You can Simplify any path, convert any stroke to a path, or use shapes

when drawing a Bézier curve, irrespective of whether you're tracing a sketch, a logo, a photograph – or just drawing freehand, with no reference image to trace.

In the next instalment, we'll continue to outline the image of Frankie using tools that are more suited to freehand drawing using a graphics tablet, rather than the less-than-fluid movements of a mouse. In the meantime, why not try using some of these techniques to trace an image of your own? Or, if you prefer, you can download the sketch of Frankie from www.peppertop.com/fc/ and try to replicate some of the examples shown here.

Mark's Inkscape created webcomic, 'Monsters, Inked' is now available to buy as a book from http://www.peppertop.com/shop/

Quick Review

by Jimmy Naidoo

The Toshiba Satellite C850-F0155 is a low end notebook computer supplied with no operating system. It features a 15.6" LCD display, full keyboard with numeric keypad, Intel 1000M cpu, 2GB DDR3 1600MHz ram, 320GB 5400rpm hard drive, DVD multi drive and a 6 cell 4200mAh battery. It weighs 2.3kg. I recently purchased one for my parents and installed Ubuntu 13.04 on it.

Display

The 1366x768 display is ok when viewed directly but is quite poor when viewed from oblique angles. It performs poorly in bright sunlight.

Hardware

The keyboard is about average for a low-end notebook, as is the touch pad(supports multi-touch). The hard drive is reasonably quick and quiet. Audio is tinny as per usual for a low-end notebook. The biggest surprise is the cpu, which is a lot better than I expected, though it does get rather hot at times. The gpu is quite good also, no problems playing back hd content or basic gaming (SuperTuxKart, Battle for Wesnoth, etc.). The unit is well built and does not flex like some similarly priced units.

Battery

The Lithium-ion battery offers around 2.5hours of normal, continuous use. Recharging is swift, under an hour from totally flat to fully charged.

Ubuntu

Ubuntu 13.04 installed quickly and has worked flawlessly so far. All hardware is natively supported. The system boots and shuts down very quickly and the Unity interface seems perfectly suited to this portable device.

Summary

The Toshiba Satellite C850-F0155 is hard to beat at the price. Most similarly priced notebooks have weaker cpu's, smaller screens, or lower build quality. The only negative seems to be the rather short battery life.

Write For Full Circle Magazine

Guidelines

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

Rules

• There is no word limit for articles, but be advised that long articles may be split across several issues.

• For advice, please refer to the **Official Full Circle Style Guide**: http://url.fullcirclemagazine.org/75d471

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

• In your article, please indicate where you would like a particular image to be placed by indicating the image name in a new paragraph or by embedding the image in the ODT (Open Office) document.

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

• Do not use tables or any type of **bold** or *italic* formatting.

If you are writing a review, please follow these guidelines :

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

Translations

If you would like to translate Full Circle into your native language please send an email to ronnie@fullcirclemagazine.org and we will either put you in touch with an existing team, or give you access to the raw text to translate from. With a completed PDF, you will be able to upload your file to the main Full Circle site.

REVIEWS

Games/Applications

When reviewing games/applications please state clearly:

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

Hardware

When reviewing hardware please state clearly:

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

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

ASK THE NEW GUY

Written by Copil Yáñez

If you have a simple question, and Linux is so confusing to you that you think "root access" refers to the elms in your backyard, contact me at copil.yanez@gmail.com.

Today's question is:

Q: What are some fun/useful programs I should download for Ubuntu?

A: I love this question because it gets into one of the top reasons I enjoy Ubuntu so much. There is so much software out there, and, no matter what your job, hobby, or fetish, there's software to make you more efficient, connected, or gimp-like. Your boss called while you were out drinking with the boys and you need a quick way to send her the Smith file? Just share it using Ubuntu One. Need to know about Clone Trooper armor mods post Order 66? Fire up Empathy and log into the Star Wars IRC channel (#starwars-irc). Want to find a better ball-gag? Yeah, you're on your own there (but I guarantee there's a community out there for you, and Ubuntu makes it dead easy to find and connect with it).

The question isn't, "What's out there?" The real question is, "What do you want to do?"

Now, I don't actually know you, stranger. But I know your kind. You're smart and sexy, and you like your OSs like you like your mates: strong, stable, and unlikely to be carrying any viruses. From doing a little online research, I can identify the needs of Aggregate You. Let's take a look at some of the more popular application downloads and see if any of them might be helpful to you.

One of my new favorite places to discover apps is the Ubuntu Developer site http://developer.ubuntu.com/. Its primary focus is on helping people design applications that appear in the Ubuntu Software Center. If you have an idea for a great new app, say a Conky-like window that posts the most popular women's shoes from runway shows around the world, this is where you might start. Actually, I'm looking into doing this one myself, I'm pretty damn tired of waiting.

The developer pages include tutorials and documentation to help you build applications and get them uploaded to the Software Center. You'll also have easy access to other people designing applications for Ubuntu.

To look at popular software being downloaded by Aggregate You, check out the Developer Blog (http://bit.ly/1atlUDW), which includes a compendium of the most popular paid and unpaid apps being downloaded every month. Let's take a look at those now.

The most recent app-summary post took place in August, and lists the most popular app downloads for July (http://bit.ly/14vfe5i). Here they are:

Top 10 paid apps:
- Filebot
- MC-Launcher (since removed)
- Quick 'n Easy Web Builder
- Fluendo DVD Player
- Spindl
- UberWriter
- Bastion
- Drawers
- Braid
- Linux Format - Issue 173

Top 10 free apps:
- Steam
- Minitube
- Wakfu
- All Video Downloader
- Master PDF Editor
- Youtube to MP3
- CrossOver (Trial)
- Plex Media Server
- IntelliJ IDEA 12 Community Edition
- Motorbike

Here's why I love lists like these. They include software I never knew I needed, but now can't live without. I'm sure I discovered Twitter on a list like this a few years ago, and now can't imagine spending a single day without hearing about the dirty fork my friend got at that snooty new Canadian-Argentine-Fusion restaurant down the street.

Case in point: on the paid list

you'll find Spindl (http://bit.ly/1817dpB), a time management software that tracks how long you spend on certain tasks and displays that information in a pleasant graph.

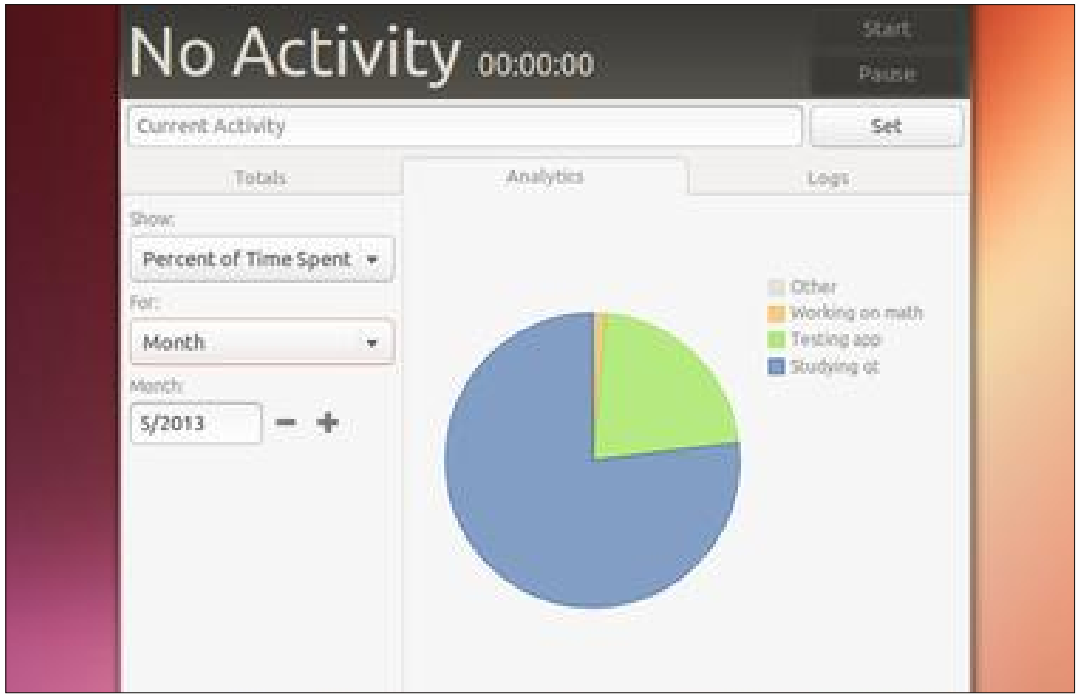
Discovering I spend more time in the loo than exercising is not nearly as demoralizing when presented this way.

By the way, I know a lot of people don't like app names and services like Spindl that truncate more familiar words to up the cute factor (and increase the likelihood of securing a coveted URL). But I like the trend and hope it continues. It's ahwsum*.

Also on the list, Bastion is available for a small fee. It's a beautiful, fairy-tale of a game with wonderful graphics, and I'm never going to play it because there wasn't a single plasma rifle anywhere to be seen.

There are writing utilities, games and magazines on that list. And some entries have been on the top ten for several months in a row.

Moving on to the free list, I



found All Video Downloader (http://bit.ly/142amOt). This allows you to easily download videos from your favorite video sites for offline viewing. Now, when my friends ask if I'm really into ABBA or just taking the pee, I can fire up old 70's-era interviews of Agnetha being super-cute as she answers questions about how she composed her first song at the age of 7. Yeah, suck it, I DO love ABBA!

I also discovered Plex Media Server (http://plexapp.com/) which allows me to stream my media files to a host of available platforms including my Android phone. So now I can re-watch those old Agnetha interviews absolutely anywhere (and judging from my Spindl output, "anywhere" most likely means the toilet).

Again, you have utilities, productivity software, games and programming environments. All a click away via Ubuntu's Software Center.

I took a look at earlier lists and found it interesting that Steam, the gaming software from Valve, has held the top spot on the free list since the software was released for Linux in February of this year. I've made the case before that I think Steam on Linux is a really big deal, and I'd argue its persistent presence on the Top 10 is a sign that Valve is doing something right.

And just to prove there's something for everyone, the Top 10 for April included Linux Tycoon (http://bit.ly/10H9pLt), which allows you to play the role of distro-developer. You manage volunteers and software additions while fixing bugs. Now, this is not my cup of tea, but, seriously, if you were into developer sims and Linux, wouldn't you be jumping for joy right about now?

So a lot of you are thinking, "Hey, Copil, reality check. I'm busy, I don't have time for developer sims, I just need to get stuff done. What does Ubuntu have for me?"

Sorry, the answer isn't as exciting as you might like.

Everything.

Which is to say, most standard productivity software you need (word processors, spreadsheets, calculators, email clients, browsers, etc.) comes standard with your

install. You don't need to do anything special, just search for it in the Unity Dash and run it. If it's the default install, it should work, no problem. Perhaps you haven't looked at the list of default Ubuntu software recently. If, like me, you find yourself using the same four or five programs 98% of the time, you might be surprised at everything that comes pre-installed on Ubuntu. Check out the list of packages here: http://bit.ly/l9qHLY. Chances are, you already have what you need.

Discovery is part of the fun of running Ubuntu. Whatever you're into (or don't know you're into), there's something to help you expand your interest. The developer page isn't the only place to find new software. The Software Center shows you new and popular software. Other programs, like App Grid, replace the Software Center, and offer a different view of the available software and the associated reviews and votes for each. Go here http://bit.ly/1a696TI for information on how to load it.

Of course, you can always do what I do. Just type [application description] + Ubuntu into Google, and see what comes up. Whenever I run into something I can't do in Ubuntu, I am reminded of the old adverb: Don't curse the darkness, light a candle. And Ubuntu has a lot of candles out there.

I hope you find what you're looking for. In the meantime, if you find you're spending too much time searching and not enough time exercising, be sure to chart it with Spindl.

Good luck, and happy Ubuntuing!

*ahwsum.com is my new crowd-sourced women's shoe site. . .just as soon as I program it.

Copil is an Aztec name that roughly translates to "you need my heart for what again?" His love of women's shoes is chronicled at yaconfidential.blogspot.com. You can also watch him embarrass himself on Twitter (@copil).

Haxima

In the early eighties, I spent a great deal of time learning about the Commodore 64. Our family bought the computer for accounting, but it quickly became apparent that games were the C64's real strength. Some of the more memorable titles included: 1942 (the midway arcade game clone), Archon, Arkanoid, Attack of the Mutant Camels, Aztec Challenge, B.C.'s Quest for Tires, The Bard's Tale, Blue Max, Commando (based very loosely on the Arnold Schwarzenegger movie of the same name), and Dig Dug – just to name a few. Compared to today's games, the graphics of these games sucked, but there was something enchanting about Commodore 64 games that made people like me spend way too long playing them.

Among role-playing style games, the Ultima series was one of the most popular. Several years ago, while browsing through Ubuntu software repositories, I came across a game called Haxima that looked very much like Ultima. Haxima was based on a game engine called Nazghul. Sadly, Haxima has since been removed from the repositories, and the original website for both Haxima and Nazghul was down at the time of this article.

Originally, I intended this article for the Linux Games section, but, since it took a bit of work getting Haxima installed, I thought it might be a useful exercise to show the steps I went through to get it working.

First, I found recent Red Hat packages for both Haxima and Nazghul on rpm.pbone.net. This article covers how I got Haxima working on my Ubuntu 13.04 system.

I downloaded the i686 rpms for Haxima and Nazghul from:
http://rpm.pbone.net/index.php3/stat/4/idpl/21500724/dir/fedora_19/com/nazghul-0.7.1-5.20120228gitb0a402a.fc19.i686.rpm.html
http://rpm.pbone.net/index.php3/stat/4/idpl/21500384/dir/fedora_19/com/haxima-0.7.1-5.20120228gitb0a402a.fc19.i686.rpm.html

In order to install the RPMs, I first converted them to .deb files. I installed alien, a program that can convert .rpm files to .deb files:

```
sudo apt-get install alien
```

Alien uses the --to-deb switch to convert a package from rpm to deb format. You need to run alien with root privileges (or sudo) to make the conversion. For example:

```
sudo alien --to-deb nazghul-0.7.1-5.20120228gitb0a402a.fc19.i686.rpm

sudo alien --to-deb haxima-0.7.1-5.20120228gitb0a402a.fc19.i686.rpm
```

Now we need to install the newly created .deb files:

```
sudo dpkg -i nazghul_0.7.1-6.20120228_i386.deb

sudo dpkg -i haxima_0.7.1-6.20120228_i386.deb
```

All done right? We should be able to type haxima and go, but if you run haxima on Ubuntu 13.04 you get the following error:

```
/usr/bin/nazghul: error while loading shared libraries: libpng15.so.15: cannot open shared object file: No such file or directory
```

In this case, ubuntuforums user ***FenrirXIII*** provides an answer here:
http://ubuntuforums.org/showthread.php?t=2138623

FenrirXIII's first step suggests downloading the libpng15 library from sourceforge:
http://sourceforge.net/projects/libpng/files/libpng15/

I downloaded the 1.5.7.tar.gz file and untarred it:

```
tar -zxvf libpng-1.5.17.tar.gz
```

Before compiling anything, we need a compiler and a few essentials:

```
sudo apt-get install build-essential
```

Now that we have the compiler

installed, the next step is to change into the libpng directory and run ./configure:

```
cd ~/Downloads/libpng-1.5.17/

./configure --prefix=/usr/local/libpng
```

Oops, an error:

```
configure: error: zlib not installed
```

Often when there's a compiler error, it's a library that's missing; when you see a message like this you can often track down the library by apt-cache searching for the term and grepping for dev:

```
apt-cache search zlib | grep dev
```

On my system, this resulted in 25 different programs, one of which, zlib1g-dev, looked a lot like the library.

```
sudo apt-get install zlib1g-dev
```

Now we re-try FenrirXIII's configure:

```
./configure --prefix=/usr/local/libpng
```

This time the command finished successfully. The next step is to make the program, simply run:

```
make
```

Normally if something is missing (libraries for example), they'll get caught in the ./configure step. Once you make it past the ./configure step, make usually compiles successfully. The make step often takes the most time, be prepared to wait a couple of minutes or more, especially on a slower system. Once make is done, we've made the binaries and associated files, make install installs them to the appropriate place:

```
sudo make install
```

We have to use sudo since we're writing to places our normal account cannot write to. The first make step was making the files within our user directory.

This older version of libpng is now installed, but we need to create a symbolic link to it so that when programs look for libpng15.so.15, they find it. Before that we actually need to locate the file.

```
sudo updatedb

locate libpng | grep libpng15.so.15
```

A few results display:

```
/home/charm/Downloads/libpng-1.5.17/.libs/libpng15.so.15
/home/charm/Downloads/libpng-1.5.17/.libs/libpng15.so.15.17.0
/usr/local/libpng/lib/libpng15.so.15
/usr/local/libpng/lib/libpng15.so.15.17.0
```

The one we want is the third result. Now we can finish FenrirXIII's steps and link the library to a place programs will look for libpng15.so.15:

```
sudo ln -s /usr/local/libpng/lib/libpng15.so.15 /usr/lib/libpng15.so.15
```

Now if we run haxima it should recognize where libpng15.so.15 is installed.

```
haxima
```

Success! Normally when I have to compile something, I usually follow the following steps:

- Untar/zip the program
- Read the README or INSTALL file (less README or less INSTALL).

Sometimes the files are in a sub-directory called docs, and follow any special instructions.

- Run 3 things:
  - ./configure
  - make
  - sudo make install

If I get really hung up on an error, I search the web for an answer. A lot of problems can be solved by reading the README or any text files included in the archive. Happy compiling!

Charles McColm is the author of *Instant XBMC*, and the project manager of a not-for-profit computer reuse project. When not building PCs, removing malware, encouraging people to use Linux, and hosting local Ubuntu hours, Charles blogs at http://www.charlesmccolm.com/.

MY STORY

Written by Gerjon de Vries

The first time I got around to trying Linux was after I bought a book, Suse Linux 6, and it had a CD included. I tinkered away at it and learned a lot. The X server turned out to be a bit problematic, and, after a while, the project was forgotten. After a few years, I regained my interest and looked at Suse Linux again, and started an experiment. Could I use it for everyday tasks? By then I was a sysadmin, managing a citrix farm and a few terminal servers, and I set out to see if it could be done. And it worked, with some hiccups, but I strolled along happily, gaining insight and enjoying myself.

Then I switched jobs. A new laptop, pre-installed with Windows XP, was issued to me, and since I had a lot to learn in this job, the projects at home stalled. After about half a year, the laptop crashed on me for the third time. The software I had to use seemed to digest the sane part of Windows every other month, and by then I had had it. I invested all evenings for an entire week, and my new work environment was ready: a shiny and stable Hackintosh (OSX from Apple on an Intel based device.) XP was confined to VirtualBox, with snapshots, so my reinstalling days were over. Hurray! This setup worked for more than an entire year. But, being a Hackintosh, support wasn't available and updates became more and more problematic. I loved the tweakability, though. Conky on the desktop warned me about traffic jams on my route home, for example. All was well in my tech kingdom—until the machine just couldn't keep up any more. The demands rose and the laptop did not.

The Acer TravelMate was replaced with an HP Probook for everyday use and work, and the old Acer was kind of obsolete. So, what to do with this technically functional machine? A home server? With Windows? Well, no, too much overhead, too risky, and, frankly, too expensive. OSX again? By now my dislike of their frenzy of vendor lock-in made me look further. Linux maybe? Well, that would be a nice project, I thought. Something to sink my teeth into. I set out and visited different fora and decided on Ubuntu. It seemed to be a nice distro, and had a large community, so support shouldn't be a problem. I downloaded the ISO, burned it on a CD, and booted the machine. After thirty minutes the project was done. I had reckoned it would take a few evenings, switching back and forth between laptops to get it all working. But it was up and running and staring at me. A few hours later, it was a file server, a print server, connected to usenet and happily working for me. A few days later, ssh was enabled, a wordpress blog was hosted, and later on it would become an Owncloud server as well.

This made me look at my newer and faster laptop running Windows 7. Did you know that if you have got a Windows 7 Home Edition, that you are not allowed to change the routing tables? So if you have an ethernet connection and a wifi connection, it's not up to you how to send data to some specific addresses through a specific connection? This, I found rather irritating. I glanced over at my old friend in the corner and thought, 'well if I really need Windows, there is always VirtualBox'. Thirty minutes later the pleasant Ubuntu startup sound echoed through my study. I installed some of the software I had gotten used to on my home server, and installed some more interesting stuff. I downloaded VirtualBox, and, in the next few days, prepared a virtual windows machine. I still have it, it's on an external drive by now, in my drawer at work. I think.

A full year has passed now. I have tried SolusOs, which now fuels my asus EEEPC 701, and some other distros. But I use Ubuntu 12.10 as my main machine, at work and at home, and I am loving it. Unity is fine for me, Cairo Dock compliments it very well. PlayOnLinux made my virtual Windows completely obsolete, and none of all my previous computers have been so trustworthy.

It just gets things done, like it is supposed to.

MY OPINION

Written by Robin Catling

In an attempt to assuage the moral outrage of *Daily Mail* (it's all their idea, you know) and *Daily Telegraph* readers, David Cameron "wants to declare himself the first prime minister to win the war on online porn."

What war? The one against the legal, tax-paying industry for which successive governments have relaxed restrictions year by year? Oh, the war against child pornography? No, that's the one that police forces across the country are fighting, despite the budget cuts. The war against children seeing pornography? Now we're talking.

Only we're not. The government issued a fraudulent and hypocritical set of demands to Internet Service Providers, demanding "a commitment to fund an 'awareness campaign' (currently undefined and open-ended) for parents", and to change the language they are using to describe the net safety filters they will be offering to Internet users. Instead of talking of "active choice +", they are urged to use the term "default-on." All, the letter says, "without changing what you're offering".

Caving in to demands by politicians and newspapers for default-on filters, this is intended to block harmful and offensive—but legal—material through the Internet Service Providers unless customers choose to have the filters switched off.

Industry sceptics list three reasons why it won't work: "…first, it may be illegal under the Regulation of Investigatory Powers. Then there's the fact that no filter is perfect, and, finally, kids are smart enough to find their way around them."

Worse, "it makes parents complacent—if you tell them the filter is switched on by default, they get a false sense of security. We want parents to make informed choices about the way their children use the internet."

Technically, default is the worst kind of temporary fix that will be easily circumvented by the smartest, most tech-savvy members of the household—children.

Might I suggest Cameron has joined the Nanny State as a policy ploy? All for individual choice and responsibility—until the Tories decide the populace is too stupid or irresponsible to make the choice that's good for them, in which case the Tories will make it for them.

Photo: Charles Ryan (Flickr.com)

Because Government knows best. And it plays well in the right-wing press.

If the problem is that children can't use the Internet safely, then parents should supervise them when using it, educate them how to use it so they can use it safely on their own, or don't let them use it at all.

But no, the Internet is potentially harmful. Unlike cigarettes and alcohol—which are actually harmful, but have powerful lobbyists to water-down or burn any further regulation of those industries.

And who is getting dumped on to implement this fiasco? The ISPs, except the government is offering no funding for the ISPs to manage the multitudes of transparent proxies, keep the filtering lists up-to-date, or managing the opt-in/opt-out register. And how is this going to work, exactly? DNS filtering? See process outlined above.

We have a government that believes every industry should be capable of self-regulation, but the Internet is far too dangerous: all that information? Unregulated? Unexpurgated? Why, this is emotional terrorism against our children. And don't you dare disagree. If you're not with us, you're agin' us. Who said that last? George W. Bush. And where did that get us? Iraq, the Patriot Act, and the dismantling of the US Constitution. Well, it's easier in good old Blighty, as our constitution isn't written down.

So who decides what content gets blocked? Stop twenty people in the street, you'll get twenty different answers. Actually, any questionnaire defining a scale of what's acceptable will give you any number of answers.

Instead, the government will step in and tell us what's acceptable. It won't matter which government—the UK, the US, France, Germany—all have their own policy agenda depending on how dangerous they perceive the Internet to be, from left, right, religious or secular viewpoints.

Unfortunately, most of the pornography is outside of the jurisdiction of the governments wishing to filter it. So, are we now looking at an Iranian-style, super-filtered National Non-Internet, or a Great Firewall of China? Therein lies the Orwellian nightmare.

But it will be fine. I'm sure there's a bored twelve-year old in Essex, or Abergavenny, who will punch a hole right through it. Or a retired Nigerian general. You know the ones.

Full Circle Podcast Episode 34, Raspberry Jamboree 2013

Your hosts:
- Les Pounder
- Tony Hughes
- Jon Chamberlain
- Oliver Clark

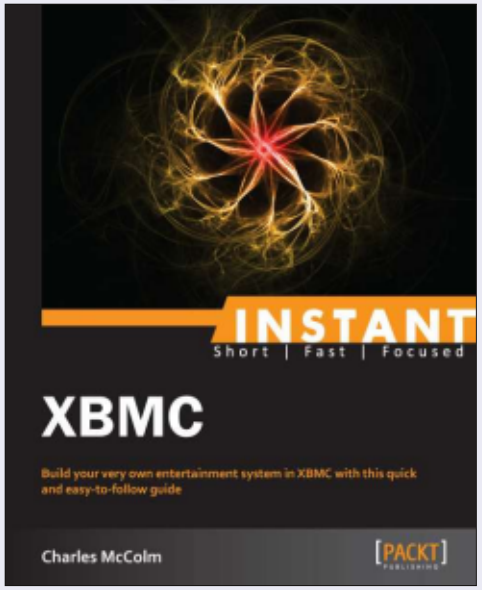
and Freaky Clown

from the Blackpool (UK) LUG
http://blackpool.lug.org.uk

Welcome to the first of a 2 part conference special, in this episode the presenters reflect on the first ever **Raspberry Jamboree** held at the Manchester Central Conference Centre on 9th March 2013

Download

Instant XBMC



Instant XBMC
by Charles McColm

eBook : 60 pages
Release Date : July 2013
ISBN : 1849696861
ISBN 13 : 9781849696869

http://www.packtpub.com/build-entertainment-system-with-XBMC/book

Instant XBMC immediately introduces the reader to the very concept of XBMC, the minimum specs for XBMCbuntu, and an image-filled step by step guide on installing it.

If you're unfamiliar with XBMC: *"XBMC is a software media center for playing and streaming multimedia content. [...] Besides playing a large number of video and music file formats, XBMC can display pictures and show the weather [...] Add-ons extend its capabilities so you can listen to Internet radio, watch Internet videos, play games, interact with Facebook, check your Gmail account, or even control the ambient lighting in your living room."*

As previously mentioned, the book uses XBMCbuntu. This means you don't have to install a Linux distro and then XBMC—it's all done in one go. So, with XBMCbuntu installed, it's time to properly name, tag, and arrange your files.

Half-way through the book and we're on to getting our media into XBMC. This can be done with the files being stored (locally) on the same machine as XBMC, or by streaming files from another machine. Not exactly beginners stuff, but still handy, and how I did it when I had XBMCbuntu installed on my old Acer Revo (pre-Google TV days).

A couple of pages are spent discussing playback (ie: stop, start, ffwd, etc.), and on tweaking the look of XBMC. Next, we get a Top-6 of features you need to know about. This basically means add-ons for Internet streaming, streaming to Apple/Android devices, and such like.

The book ends with a list of places to visit (help forums, XBMC site, XBMC social media pages, etc.) which is a handy reference should you come a cropper or need advice.

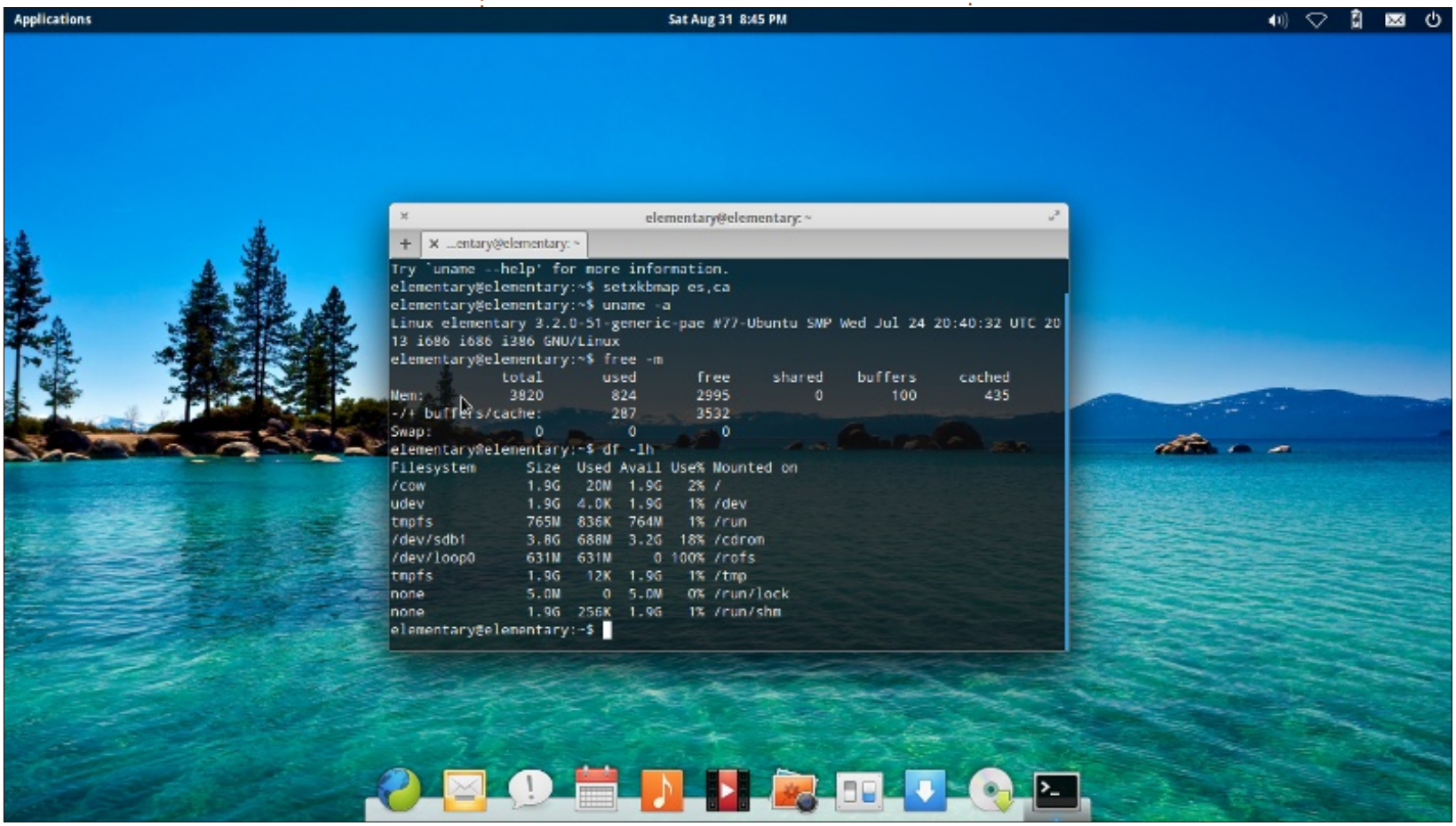
The 'Instant' series of books are perfect for the beginner as they're not too long and never get too in-depth. Some may say they're too short, but I prefer books that are short and to the point (where possible). One thing I would say, though, is that, while the book is listed as 60 pages, a good dozen of those pages are intro/outro stuff—so really the book is about 50 pages of information. Still, at £6 for a digital download (£13 for a paper book), it's definitely worth it if you want to set up a nice XBMC box.

I am a bit of a desktop manager nomad, never quite managing to remain faithful to Gnome, KDE, XFCE, or any of the others. Unity came and went, as did Enlightenment with Bodhi Linux. For the last year, however, I have mostly kept to Lubuntu's LXDE as a good compromise between a practical user interface and one that doesn't grab at too much hardware resources. When a distribution with a new desktop manager gets my attention, I often download and install it on a virtual machine, at least long enough for a general peek around at how it works. The last of a long list was Elementary OS, released as version 0.2 "Luna" on August 11th.

This could easily have been the review of Yet Another Ubuntu Derivative Distribution — Elementary 0.2 has a core based on Ubuntu 12.04 LTS — except for two redeeming factors: 1) the developers go for a simple and uncluttered desktop, and 2) they go for beautiful. For the most part, my feeling is that they have managed quite well on both counts.

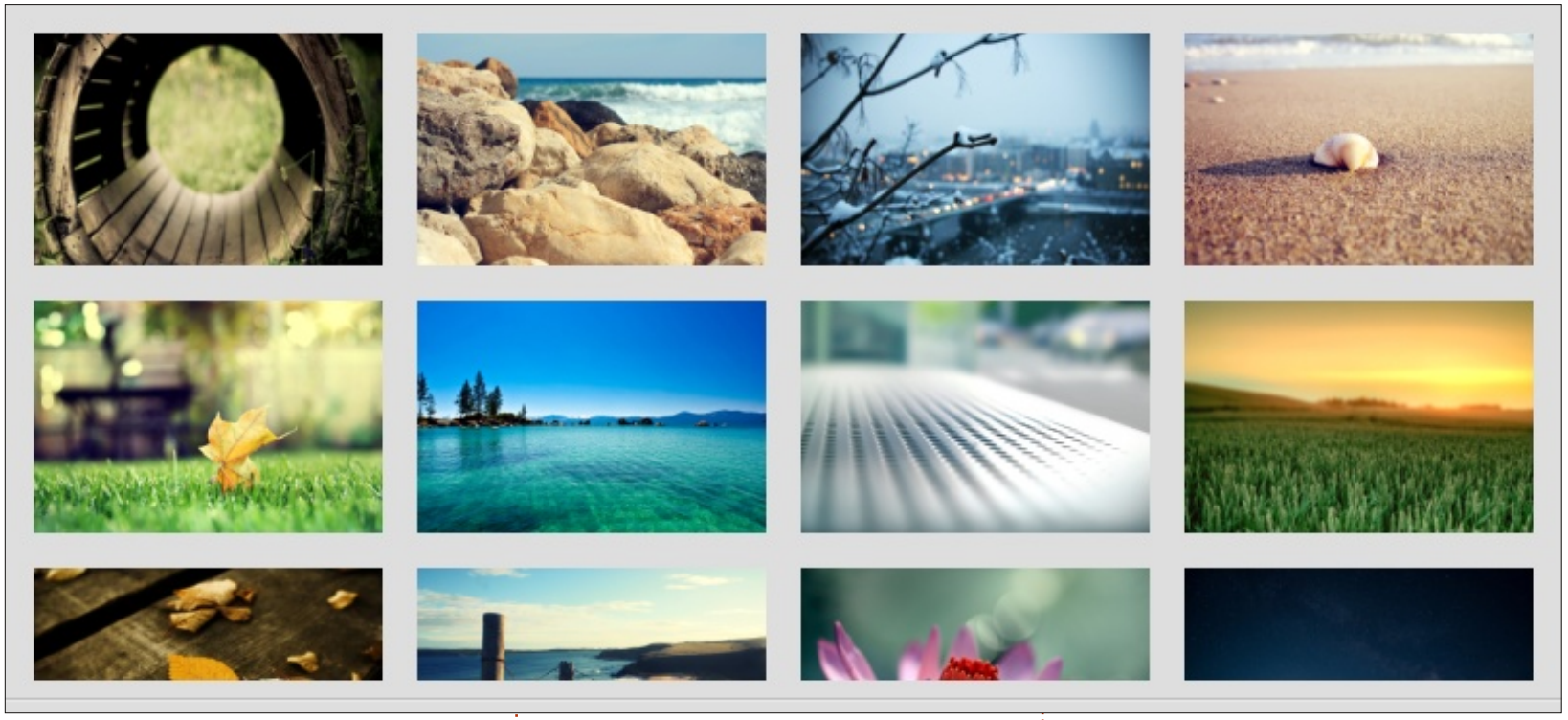
The download process of the 700MB image is what you would expect, though with a perhaps unfortunate twist. Straight from the gate, you are requested to consider making a small donation to the cause ($10 is suggested). I do appreciate they may actually need the money to continue development, but it does come across as slightly pushy. An alternative entirely free download button is also provided underneath.

Once booted up, the ISO image goes into graphics mode and gives us the choice between installing directly or using it in Live-CD mode ("try without installing"), in a similar fashion to Kubuntu. In either case, the screen flickers a bit back and forth between text and graphics modes, reminding us that this is not to be considered a



finished product but rather “work in progress.” This is coherent with the 0.2 version number the team gave it.

Going into Live-CD mode, the desktop comes up rather quickly. I have not actually measured the time used, but it does feel similar to Lubuntu or Xubuntu—and somewhat less than Unity. We have the dock at the bottom, a panel at the top with an application menu and a notification area, and that's that. It gives an impression of clean, refined elegance, giving us enough graphical cues to access our stuff, but without the least clutter.



Many of these elements have been created or adapted “in-house” by the Elementary team, so to speak. The window manager is called Gala, the top panel is Wingpanel, the application launcher is Slingshot, while the dock is called Plank and seems to have a lot in common with the Docky code base. As for applications, the file manager is “Pantheon Files”, the mail client is Geary, and the music reproducer is simply called Music. They use the Gtk and Clutter libraries like many other graphical interfaces.

On the other hand, several existing applications such as the Midori browser and Shotwell image manager have been chosen among existing programs, perhaps mainly as lightweight, well-tested alternatives that get the job done well enough for most users. Ubuntu's Software Center is also there if we need something more substantial.

This should not make us think the distribution itself has low memory requirements. Testing gave a memory usage in the low 800 Megabytes with little or no load on the computer besides the basic system and graphical interface. In this sense, it is comparable to most other Ubuntu Live-CD offerings, and slightly higher than lightweight Lubuntu. Processor use is not too heavy, however, and the desktop can run well enough on an Atom processor, for example.

The Elementary team has been hard at work on design and eye-candy in general, as can be seen from this stunning selection of wallpapers. Okay, so nothing is easier than downloading a wallpaper from the Internet, but I find this default array a good point to start with for normal users, i.e. those who do not wish to spend too much time on desktop decoration. Actually, I think it is rather better than Ubuntu's choice of wallpapers, but that may be a matter of personal opinion.

The system settings application

seems to be an adaptation of the classical Gnome settings panel, though some options have been rearranged. The wallpaper, dock and "hot corners" panels have been grouped as tabs in the Desktop settings section, one of the simplest arrangements I have seen in quite some time.

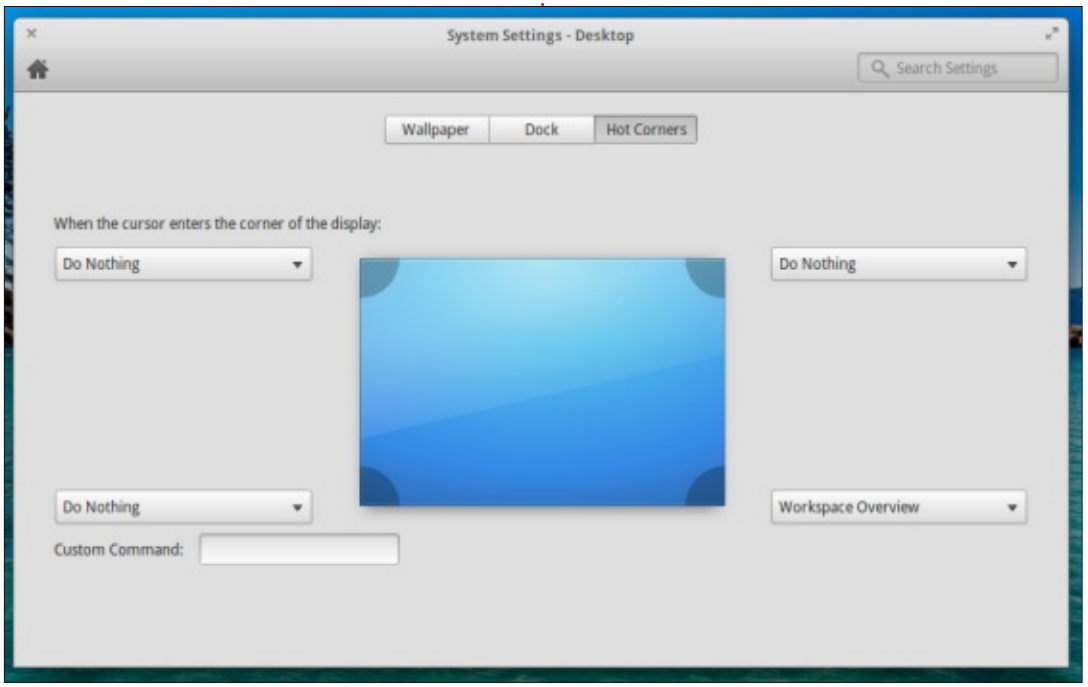
The file manager, Pantheon Files, is quite similar to Nemo from the Gnome framework. It comes with the integrated disk usage indicator. As described in their Launchpad page, "Files is a simple, powerful, sexy file manager for the Pantheon desktop." Note "sexy."

There have been some small changes, however, such as the absence of menus—they are not to be found in the window or at an alternative location. This would seem to be due to remains of Unity integration: no global menu bar at the top of the screen, so no menus in sight. Using only the icon on the Network tab, I managed to set up an SFTP connection to transfer files to another computer … which it later refused to unmount. It also refused to indicate Dropbox file status, even with the pantheon-files-plugin-dropbox packet installed.

On the other hand, a color tagging functionality—clearly inspired by Mac OS-X—has appeared. This lets you color file labels, which can come in rather handy for classification purposes. Let's see, which images have I already inserted into my article, and which remain to be placed?

The general design both of the user interface and of the http://elementaryos.org web page does seem to owe a lot to Cupertino's design teams, with the Music application's screen as a dead giveaway. However, most design cues come very clearly from Gnome's GTK, with some elements from LinuxMint. It can in some ways be seen as of mixed inspirations. The end result certainly works from the user's point of view, though long-time Mac users may grumble a bit about it not being exactly what they are used to. The devil comes out in some small details such as window button positions at the top of each screen.

All in all, the end result is quite satisfactory and well worth a test for those who are inclined to simple, uncluttered graphical interfaces. Though it is worth bearing in mind that their design philosophy may be a bit too radically simplistic for some as in, for example, doing away with window and contextual menus (no right clicks on the desktop or elsewhere).



Another minor hiccup is lack of stability on some hardware. I had a continuous problem with freezing on an Acer Aspire AO722, perhaps due to graphical hardware issues—though no other Debian or Ubuntu distributions (including the very same 12.04 on which Elementary is based) have given me problems on this particular computer. On two other laptops, it gave no issues at all. So testing is definitely the name of the game.

Though the user interface is still under heavy development, it should be possible for the more adventurous to use it for some actual work. However, as usual, care should be taken to make frequent backups of your data, for example on another computer or in the cloud. Following the team's simplistic mantra, none of the usual user programs such as Libreoffice are installed, though this is a simple matter to solve with apt or the Software Center.

An alternative approach could be to start out from an existing Ubuntu 12.04 installation, and add the elementary packages from the project's Launchpad repositories:

```
deb
http://ppa.launchpad.net/elem
entary-os/stable/ubuntu
precise main

deb-src
http://ppa.launchpad.net/elem
entary-os/stable/ubuntu
precise main
```

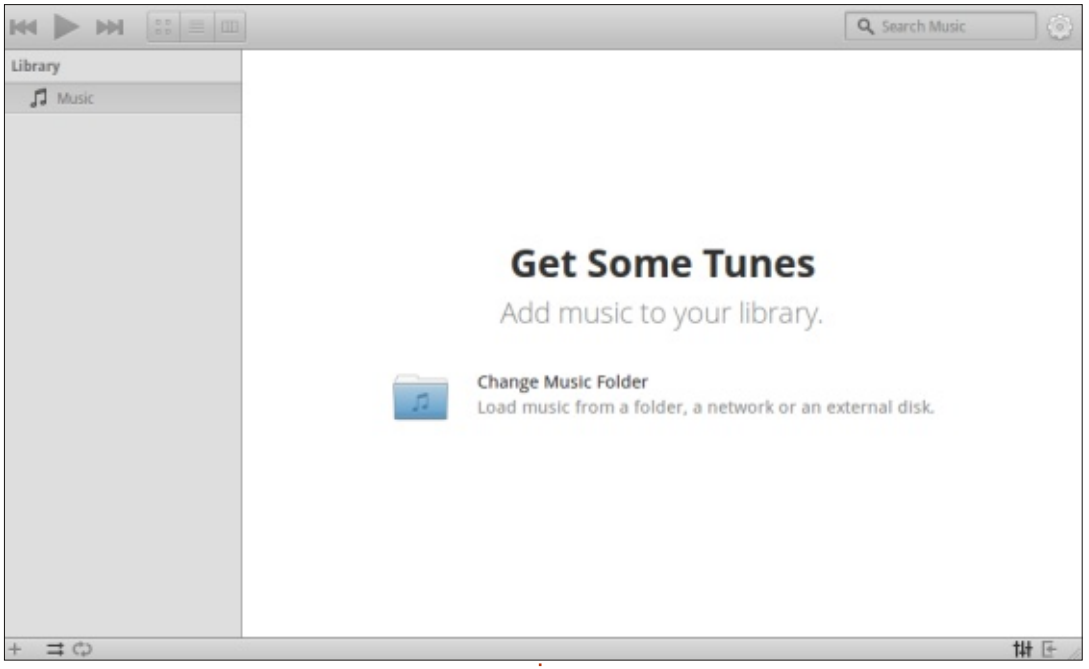
First, make sure your target system is up to date. Then, after inserting these two lines at the beginning of file /etc/apt/sources.list, the following commands should get you going:

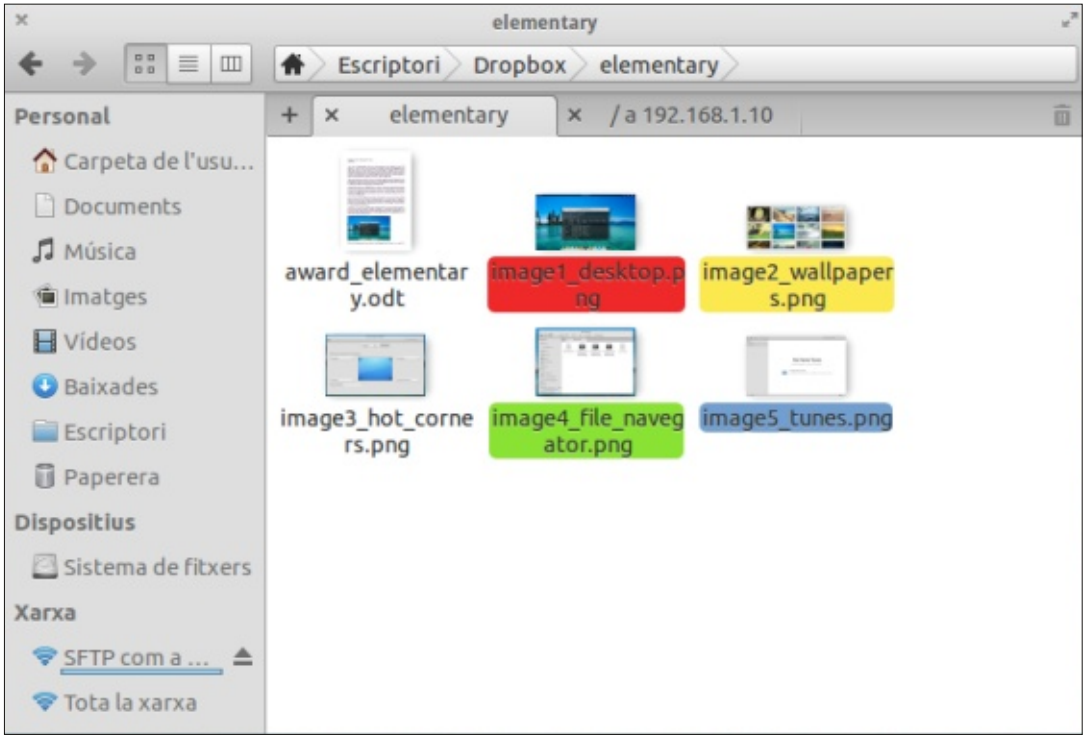
```
apt-get update

apt-get install elementary-
desktop elementary-standard
elementary-artwork
```

It will need to download about 47 MB of software packages, if starting out from a vanilla Ubuntu 12.04 installation. Some conflicts may appear (e.g. between elementary-scan and simple-scan), but can be ignored. You will need gnome-tweak-tool to replace your existing widget theme with Elementary's, and will perhaps also choose to remove plymouth-theme-ubuntu-text and plymouth-theme-ubuntu-logo to get Elementary's "e" screen on boot/shutdown instead of Ubuntu purple.

Seeing what these people have been able to achieve since their release 0.1, it will be interesting to see what they can come up with in the next few years. It is certainly a project to keep an eye on.





Alan teaches computer science at Escola Andorrana de Batxillerat (high-school). He has given GNU/Linux courses at the University of Andorra and currently teaches GNU/Linux systems administration at the Open University of Catalunya (UOC).

The Dark Knight

If you use a GNOME-based desktop, Shotwell and F-Spot may be the only photo managers you've heard of. However, there is another alternative, a dark horse: digiKam. If the upper case 'K' didn't already make you guess, digiKam is a part of the KDE project. It is the default photo manager of Kubuntu, but is it worth choosing over the familiar GNOME alternatives? Read on.

A Knight's Errand

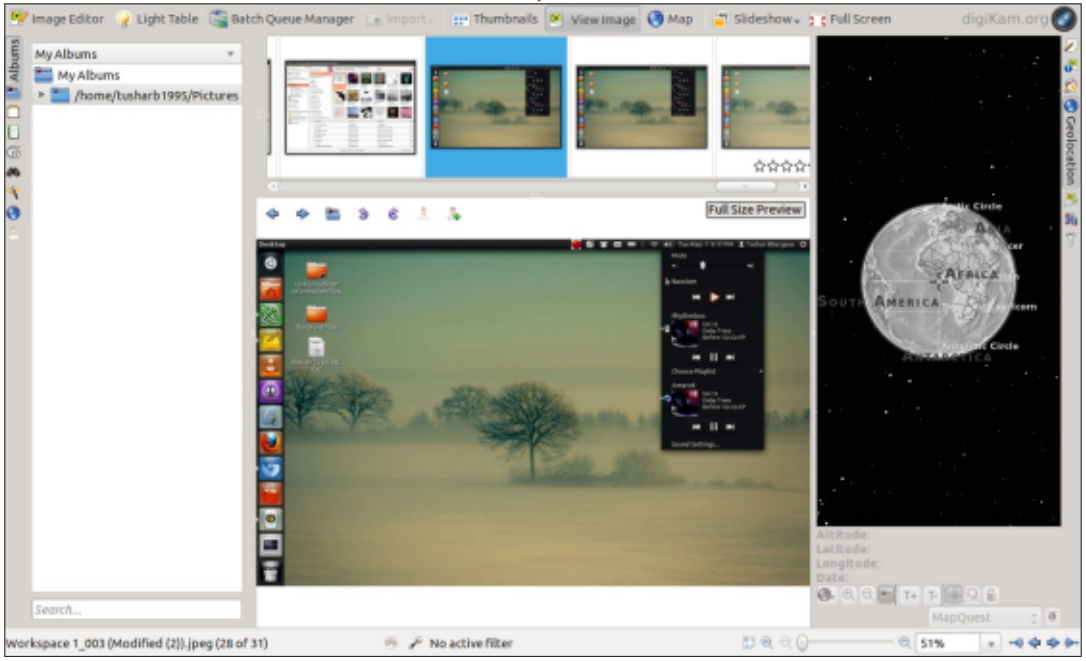
"Mighty things from small beginnings grow" - John Dryden

Mr. Raju Renchi, a student at the University of Illinois and devoted Linux user, had a problem. He could not transfer photos from his digital cameras to his hard drive easily. He had to instead resort to the tedious command-line. There was no application available with a friendly and simple user interface (UI) to accomplish this task. Further, for most normal users, using the command-line would simply be too difficult. Fortunately, Mr. Renchi knew programming, and consequently was well equipped to solve this problem. He designed a program which had a simple interface and could transfer files from the camera to the computer. This came to be known as the digiKam project. The year was 2001. According to a memoir written by Mr. Gilles Caulier, the current lead developer and coordinator, there was no comparable application in Linux at the time.

By the time Mr. Renchi handed over the reins of the project to Mr. Caulier in 2005, digiKam had quickly grown from a rudimentary program to a full-fledged photo manager and organizer. In fact it won a reader's choice TUX magazine award in the same year for the best photo management software. In the rest of the article, I want to analyze what makes it stand out.

User Interface

The UI reveals the first chink in the Knight's armor. It is a three-column interface that is bordered with buttons on all four sides. The first column can serve as a file browser, tag browser, a calendar, or a time-line. It can also function as a search bar. The second column shows the thumbnails of the photos. The third column, which is initially collapsed, can show the file properties, meta-data, colors, geolocation, tags and even image versions. I can almost hear you saying, "that sounds great, where's the problem?". Well, all these features make the UI extremely crowded. In fact it is extremely overwhelming for a new user. The minuscule buttons further compound the problem, and, overall, the UI certainly doesn't feel intuitive. On the other hand, the plethora of features will surely appeal to more serious photographers. In fact digiKam promises to help you 'manage your photos like a professional'.



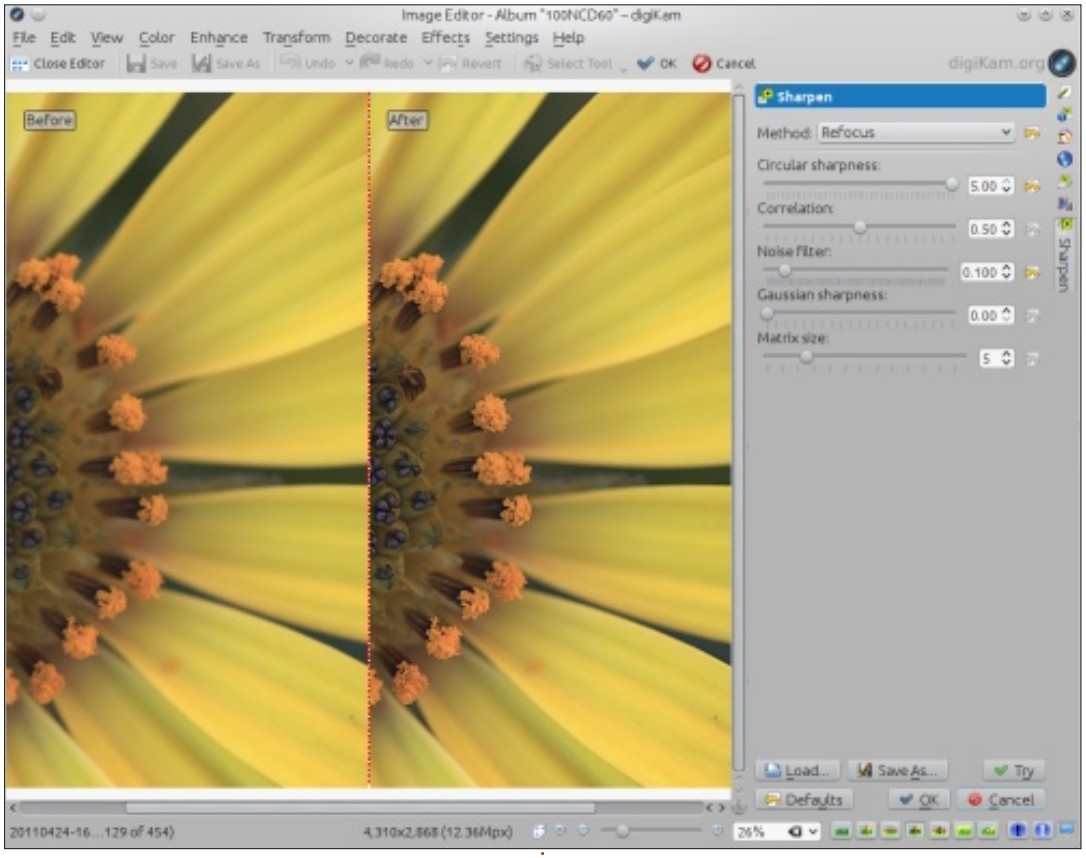
Import Options

When you set up digiKam for the first time, it guides you

through the setting up process with the help of a wizard. It is during this time you decide the folder that will serve as your picture library. Initially all photos in this folder will be scanned and incorporated in digiKam. However, the next time you open digiKam it will scan the folder for only new images. The wizard is well designed and straightforward. It ensures that even when you open digiKam for the first time, your photos will already be there to welcome you. Magical indeed.

digiKam was originally made for the sole purpose of transferring photos from the camera to the computer. It performs this task well, and supports a large number of cameras. Unfortunately, my Nikon CoolPix P500 was not compatible with digiKam. This was somewhat disappointing—especially since Shotwell had no problem recognizing my camera and retrieving photos from it.

A large number of photos are also floating in the cloud. digiKam bravely volunteers to go and fetch these photos. With options to import photos from PicasaWeb, SmugMug, and even Facebook, digiKam trounces the competition in this category. Given the fact that most of our pictures are to be found on social media sites like Facebook, the Internet import option may be reason enough to switch to digiKam.



Searching

digiKam offers a basic search bar that should suffice for most users. You also have the option to save your searches. But, of course digiKam just doesn't stop at that; it also has an advanced search option which is probably as accurate as a sniper's telescopic vision-enabled gun. And most certainly equally complex. With the search asking for details like the aperture and focal length of the camera, only the most serious of snappers should try to harness this powerful tool.

Photo Editing

If you hadn't noticed the pattern yet, I'll crystallize it in words for you—digiKam is a photo manager for professionals. Consequently, its built-in photo editor resembles an operation room filled with equipment. The tools range from the basic 'rotate' to the advanced 'brightness, hue and saturation'. There are many 'auto' options to let digiKam handle the bulk of the work. There are also 'before' and 'after' previews, which are indiscernible to (my) untrained eye. And the operation? Why, to give a facelift to your photo of course. Even better, if the operation goes horribly wrong (and your friend's face is suddenly cropped out giving the impression of you being buddies with the headless rider of Sleepy Hollow), you can simply refuse to save the changes. Phew! Thank you digiKam, otherwise I would have just lost my head.

Export Options

digiKam takes a FedEx approach to exporting photos, "We deliver anywhere." With options to

send photos to Facebook, PicasaWeb, Flickr, your iPod, a remote computer, email them, and even export to HTML, digiKam once again leaves the competition in the dust.

Conclusion

digiKam is certainly a powerful photo editor and manager. If you're a professional photographer, you should definitely give it a try. For the rest of us, its crowded UI and overflowing features may act as a deterrent. I would still recommend it to those who use their photo manager as a pit stop, ferrying photos to and from the web, due to its comprehensive import and export options. It's also worth noting that I was running Ubuntu, and digiKam is a KDE application. In fact, Mr. Caulier mentioned 'full KDE integration' as a major benefit of the project; maybe it was just out of place in a GNOME environment. In the end, however, digiKam does indeed live up to its promise of allowing you to manage your photos like a professional, powered by the wholesome goodness of Open Source.

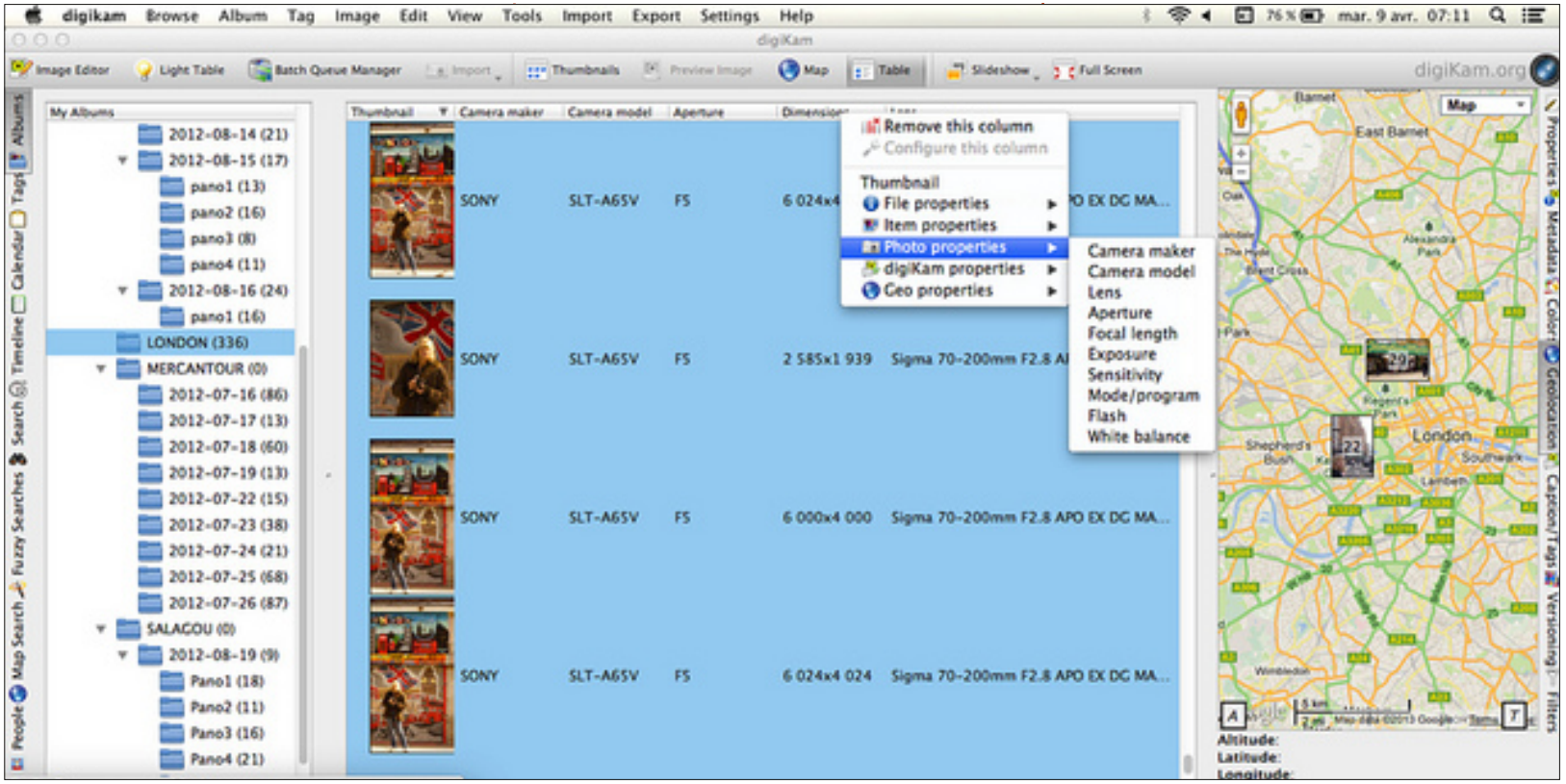
Summary

The Good

- Abundance of features
- Comprehensive import and export options especially those involving the Web
- Robust tagging system
- Built-in photo editor offers dozens of tools that can be used to really fine tune a picture
- Great wizard to guide you through the initial setting up procedure

The Bad

- Crowded UI with small buttons, not very user friendly (remember I ran this KDE application in GNOME)
- Consumes a very large amount of hard drive space
- Some features are unresponsive at times



Website: http://www.digikam.org/

Tushar is a 17-year-old Indian who loves Ubuntu/FOSS. He programs in Java and C++, enjoys writing and, recently, making Android apps. If you enjoyed this article, his blog is at tusharbhargava.wordpress.com for more articles.

LETTERS

If you would like to submit a letter for publication, compliment or complaint, please email it to: letters@fullcirclemagazine.org. PLEASE NOTE: some letters may be edited for space.

Another SolydXK Fan

At first I became disenchanted with Ubuntu a few years back because the interface just didn't fit my way of computing. Oh, there were other issues – but I could have lived with most of them; my system certainly has the power to deal with graphics.

I landed on Linux Mint which I grant is still Ubuntu based. I found either the MATE or Cinnamon desktops more intuitive. I settled down with Cinnamon and liked it.

Then Full Circle just had to review SolydXK - so this is all your fault, isn't it? [guilty as charged - Ronnie]

I installed first SolydK on my 'let's-try-this' partitions because I haven't fiddled with KDE in many years. The desktop became too cluttered and the mixer wouldn't allow R/L balance adjustment. So I tried SolydX. To my surprise, Xfce clicked with my "brain" and I continued to play around with it.

A couple of weeks ago I bit the bullet – I backed-up the Mint (production!) home partition and installed SolydX. There was an issue with the home partition, probably my fault, that was recovered nicely but basically most things just work as I want them to. I really appreciate the increased freedom to tweak the system through a graphical interface. The rolling distribution has impressed me.

I guess what I want to say is that I couldn't agree more with Robin Catling. I encourage you to change "The Independent Magazine for the Ubuntu Linux Community" to something like "The Independent Magazine for the Linux Community". I find it a uniquely wonderful resource.

Dave Rowell

Ronnie says: *While Ubuntu is our main port of call, I welcome articles on any Linux distro out there. In the past, we've covered Android and such like. Again, I'm repeating myself here, I can only print what folks send me.*

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ubuntuforums.org/forumdisplay.php?f=270

Full Circle Needs You!

Without reader input **Full Circle** would be an empty PDF file (which I don't think many people would find particularly interesting). We are always looking for articles, reviews, anything! Even small things like letters and desktop screens help fill the magazine.

See the article **Writing for Full Circle** in this issue to read our basic guidelines.

Have a look at the last page of any issue to get the details of where to send your contributions.

QMOTION

I saw your article in Full Circle [regarding the 'motion' application]. Using motion can be painful, and it's not exactly user friendly. You could use qmotion instead:
http://slist.lilotux.net/linux/qmotion/index_en.html

Stephane List
(Qmotion developer)

DEBIAN

I'm a newbie: I've started my Linux experience in February this year. I'm neither an IT professional nor a geek, and I'm about 50. I use my PC to get things done, it's a tool – not a scope.

I want to say a big and grateful "Thank you" to the Xubuntu team, because that was the distro I was able to install and run on my machine, an old Thinkpad T43p - Ubuntu is nice but a bit too heavy on my scarce PC resources.

Actually, now I'm running Debian 8 Jessie (testing) Gnome 3, after a couple of months with Wheezy (stable).

I want to share my humble newcomer point of view after reading the in-depth analysis from Robin Catling:
• Ubuntu is great, many Canonical marketing ideas are great (the Dell alliance on Dell-Ubuntu stores in China is the last I read about);
• the number of packages available is the largest in the Linux world;
• many things are working out of the box, or with a few tweaks that can be completed all by GUI.

But, big but, I find myself a bit confused when I see that Unity desktop environment. I've tested Gnome 3 on Ubuntu, Debian, Fedora and Opensuse.

I read that there will be a display server called Mir for Ubuntu, and one called Wayland for the rest of the Linux world. I'm not an expert so the technical reasons why Canonical decided to develop Mir instead of contributing to Wayland remain obscure to me.

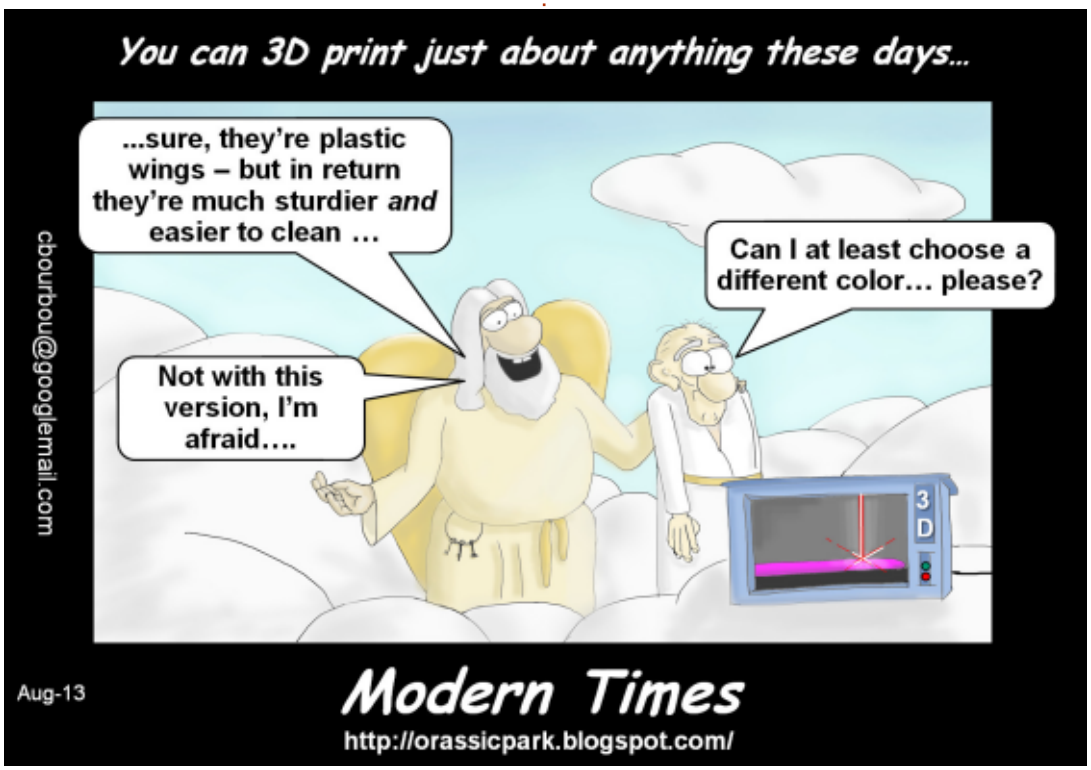
I've found Debian a little bit more complex to set up - some terminal tasks are mandatory - but I was successful because of the clear documentation available.

Maybe they are a bit conservative, but it results in a highly reliable system - the stable edition is rock solid, and also the testing edition is very reliable for a desktop user like me. The number of packages available is huge, and it's possible to take a risk with a new package version or to remain with a more stable and older version of a tool.

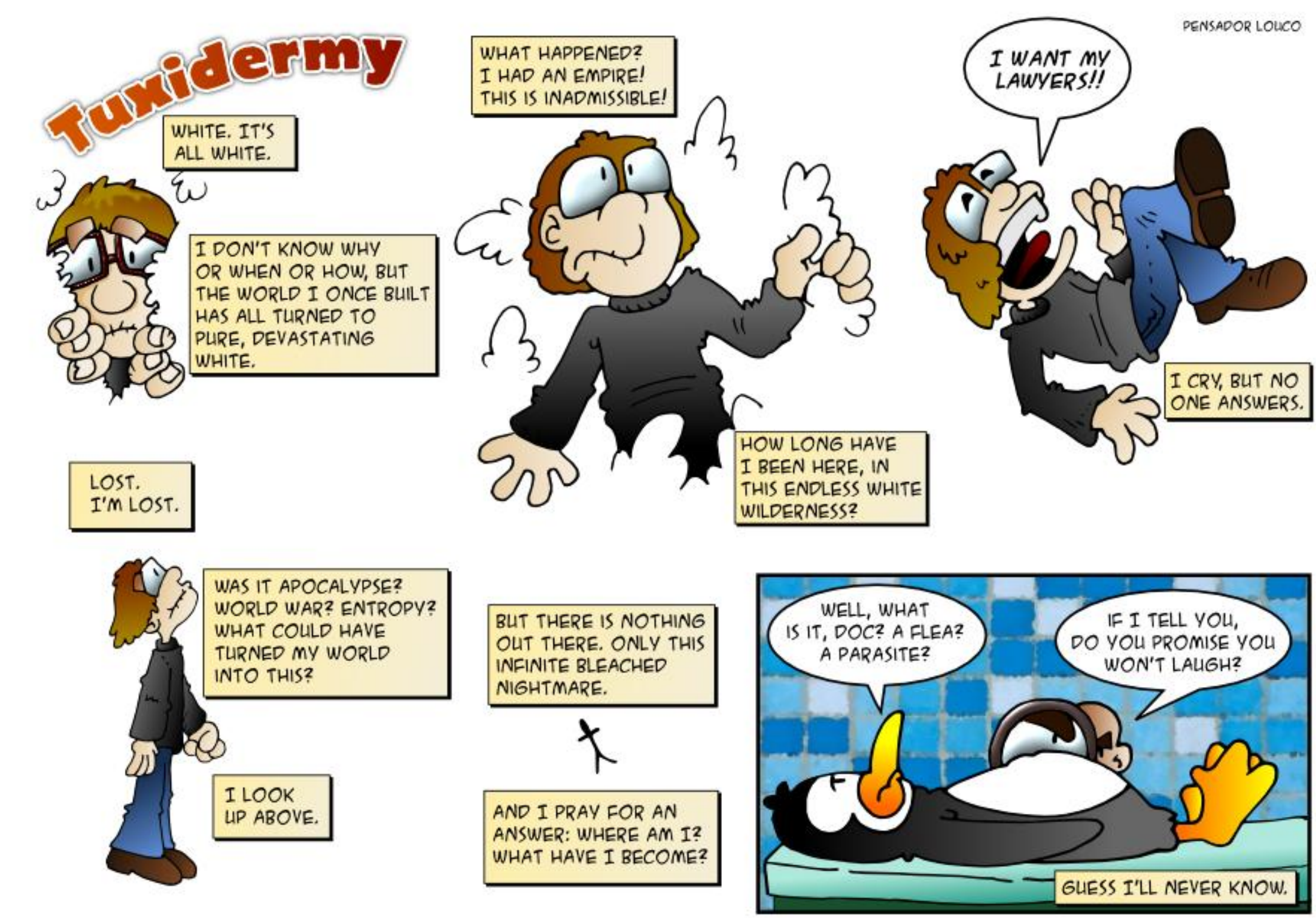
I stay with Debian because I feel myself comfortable with their democratic way of approaching problems and development, I'm free to choose the level of risk and innovation versus system stability of my Linux experience.

I add that if someone does not like to work with terminal but has a feeling for Debian, there are some good derivatives based on Debian: I mention Mint LMDE and SolydXK because I've tested them, but there are many more Debian-based distros.

Gabriele Tettamanzi



Tuxidermy


PENSADOR LOUCO
WHITE. IT'S ALL WHITE.
I DON'T KNOW WHY OR WHEN OR HOW, BUT THE WORLD I ONCE BUILT HAS ALL TURNED TO PURE, DEVASTATING WHITE.
LOST. I'M LOST.
WHAT HAPPENED? I HAD AN EMPIRE! THIS IS INADMISSIBLE!
HOW LONG HAVE I BEEN HERE, IN THIS ENDLESS WHITE WILDERNESS?
I WANT MY LAWYERS!!
I CRY, BUT NO ONE ANSWERS.
WAS IT APOCALYPSE? WORLD WAR? ENTROPY? WHAT COULD HAVE TURNED MY WORLD INTO THIS?
I LOOK UP ABOVE.
BUT THERE IS NOTHING OUT THERE. ONLY THIS INFINITE BLEACHED NIGHTMARE.
AND I PRAY FOR AN ANSWER: WHERE AM I? WHAT HAVE I BECOME?
WELL, WHAT IS IT, DOC? A FLEA? A PARASITE?
IF I TELL YOU, DO YOU PROMISE YOU WON'T LAUGH?
GUESS I'LL NEVER KNOW.

Q&A

Compiled by Gord Campbell

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

Q I want to back up my dvd collection.

A Have a look at Handbrake: http://handbrake.fr/

Another approach is some variation of this command:

```
dd if=/dev/cdrom
of=/path/dvd.iso
```

Q I'm an Ubuntu 12.04 user, should I upgrade it?

A If you just want to get stuff done, stick with 12.04 until 14.04 has been around for a couple of months.

If you want the latest shiny, then upgrade. The downside is, you will need to upgrade every six months until the next LTS. If you upgrade, you can't skip a version. You would go from 12.04 to 12.10 to 13.04 to 13.10 to 14.04, then you will have a chance to get off the merry-go-round.

Q I cannot get Rythmbox to connect to my Bluetooth headset. The blue tooth transmitter is native on my notebook.

A Install Blueman and use it to pair the device before you run Rythmbox.

Q How can I install Kompozer on Ubuntu 13.04?

A (Thanks to ***Lars Noodén*** in the Ubuntu Forums) See this web page: http://linuxg.net/how-to-install-kompozer-on-ubuntu-13-04-12-10-12-04/

Apparently, Kompozer is not currently being maintained. A number of alternatives exist, including Bluegriffon.

Q I'm using Lubuntu 13.04. I can't get sound to work in Libreoffice Impress.

A Remove Libreoffice 4.0, go to the Libreoffice website and install version 4.1. You have to change the download from the default to a 32-bit or 64-bit deb file. The installation is very annoying; I hate when you extract a .gz file, and it creates a folder with a very long name. At least the readme is helpful.

Q I've installed Compiz and Conky via the software manager (people say they are great), they don't appear in the menu?

A Those are command-line programs, so you run them from Terminal.

Q It's very urgent for me to know whether live555 server is installed on my server or not.

A `sudo apt-get livemedia-utils`

Q I have a Packard Bell Easynote TS laptop that is about 2.5-3 years old now, I have had some long running heat problems on it.

A (Thanks to the original poster) I followed Thee's suggestion and had the computer cleaned. I turned it in at a retailer and they cleaned the laptop inside and out, and there was loads of dust dirt in the heat-sink as well as in the fans. They also applied new thermal paste on to the CPU, and now my laptops runs like when it was new. Temperatures dropped from around 80 degrees centigrade while idle, down to about 50 degrees.

Q I installed a second hard drive into my computer for a specific project. It needed to be the first hard drive in the BIOS, then I could change the boot order to select which OS to boot. But my swap went away!

A Use this command:

```
gksudo gedit /etc/fstab
```

Find the line for the swap file, and change it from sda2 to sdb2,

or whatever the number is. Reboot and the swap should be back.

Most active and top questions at Askubuntu:

* How do I run an application with arguments from the command line without losing the terminal?
http://goo.gl/fhlwCI

* GTK+ Themes not showing up
http://goo.gl/9o97Ir

* Can't find or install Canon MP230 on Ubuntu 12.04
http://goo.gl/G17vHG

* Ubuntu 13.04 Screen Brightness Only Changes Via Hotkeys
http://goo.gl/Ch8xYe

* Install problems at the expanding section
http://goo.gl/Vi7oCS

* What is the purpose of the 'nobody' user?
http://goo.gl/FCXWjR

* Exclude from * in command line
http://goo.gl/nsPk4R

* Do I have to use Thunderbird to get email notifications?
http://goo.gl/7Sx8Ie

* What is the functional difference between sudo su and sudo -i?
http://goo.gl/cOAHlS

* How to replace Windows with Ubuntu?
http://goo.gl/CQowhd

* How to show GRUB after install Ubuntu over Windows 8?
http://goo.gl/ugsy1I

* How to open Nautilus (File Manager) preferences?
http://goo.gl/kFyEGY

* I am having command line problems in 13.04
http://goo.gl/Wo9Fo7

* No Network Devices Available after fresh install of 12.04
http://goo.gl/8cIrfW

Tips and Techniques

No Sound

At least once a week I see some variation on "my computer produces no sound."

Sometimes the person includes lots of information about software settings, but hardly anyone gives a physical description: what should produce the sound, and how is it connected: earphones or speakers, plugged into the front or the back, or perhaps speakers in a monitor or TV connected by HDMI? And what program should produce sound? (VLC is notorious for muting sound for no good reason.)

Have you run Speaker Test? Here are the procedures to run Speaker Test in two different environments:

1. Right-click on the speaker icon and make sure sound is not muted. Click on the speaker icon and select Sound Settings. Note what device is selected for sound output and what Connector is selected in the drop-down box. Click on the Hardware tab, note what Profile is selected, and Test Speakers is in the bottom-right corner. When clicked, it offers Test for Front Left and Front Right. I have seen the wrong Connector as the default; picking a different one fixed the problem.

2. Essentially the same procedure with different wording. Right-click on the speaker icon and select Sound Preferences. (Note that sound can be muted here.) The Hardware tab will show what device is selected, as well as having a Profile drop-down list and a Test Speakers button. There's also another Mute check-box.

In my experience, at least 80% of the time "no sound" is due to it being muted (or the volume set near zero) in one of the three places: speaker icon, sound settings, or application. Also, some earphones have a volume control in the cable -- so we have four "simple" answers.

Many of the other problems can be solved with Alsamixer, and you will need to put a few minutes into learning to use it, for example at http://en.wikipedia.org/wiki/Alsamixer

And if that doesn't work, it's time to hone your Google skills.

After a long career in the computer industry, including a stint as editor of Computing Canada and Computer Dealer News, **Gord** is now more-or-less retired.

Faster Than Light

Faster Than Light (more commonly known as FTL) is a top-down, real-time strategy game on Steam, made by indie team Subset Games. The player takes control of the crew in a space vessel that's in possession of critical information that must be delivered to an allied fleet several sectors away. However, to make the game more challenging, you are pursued by a large rebel fleet in every sector.

In keeping the story simple, the team has been able to create an in-depth management system. You must maintain the ship when it's damaged and make difficult decisions when under attack. For example, jumping in the middle of battle or taking energy from one source to power a weapon. Jumping is how the player moves through the game, and, in some circumstances, the player may be near death, but can still escape battle. You will, of course, have encounters with the rebels. These are real-time, ship-on-ship battles which are the core of Faster Than Light's gameplay, and, on quite a few occasions, the tension is increased through forcing you to make split-second decisions at every turn.

You can also upgrade your ship's defenses and weaponry so as to aid you in your quest (e.g., upgrading your shield so that it can take more hits, or purchasing new weapons to add to your armory). The currency in the game is called scrap and can be used to buy upgrades, fix your hull, or even given to rebels to spare your life. Not only can you upgrade your weaponry, but the crew members also level up as you place them in different rooms on the ship. For example, if you were to place a crew member in the engine room, then that character will gain experience with the engineering skill.

I have played FTL for many hours, and, despite the fact that I have worked through only one run so far, a lot has already happened. My ship has been invaded by an enemy crew, asteroids have destroyed my shield allowing the hostile ship to render my engine and weapons useless, and the next jump I made was into an ion storm that chewed through my reactors'

power (and this was within one of my first few jumps). The randomness of the difficulty can be frustrating at times (even in easy mode). Enemies randomly spawn, as does the weaponry they have on their vessel. Deaths like these are permanent, so you will have to start from scratch to journey across the galaxy. These become frequent as you are constantly learning from the previous playthrough, and become more infuriating if you have had nothing but difficult adversaries.

The game makes you want to cheer with victory after each battle won, but gives you a hint of fear at what could be the next ordeal, when you see your nearly diminished hull, or that there is only one crew member left with your dwindling supply of fuel.

One of my personal favorite parts of the game is the music—it adds to the ambience of the game whether you are floating around in space or in the middle of an exciting battle. This is an added bonus which you can choose to download with the game (added fee of course), but it is worth the price as much effort has gone into the soundtrack of the game. The graphics style of the game has been given the 16-bit look and that makes the game even more appealing.

In conclusion the game offers an excellent experience, and, if you're a fan of strategy and the sci-fi genre, you will be immediately interested in this title. But, with a harsh difficulty due to the randomness of the encounters, it may frustrate some players. At £6.99, this game cannot be recommended enough. It is fun to play and has a lot of replayability.

David is a relative newcomer to the Ubuntu scene and really enjoying it so far. He loves games and is pursuing a career as a Games Designer. You can follow his exploits at: rhysforward.carbonmade.com

MY DESKTOP

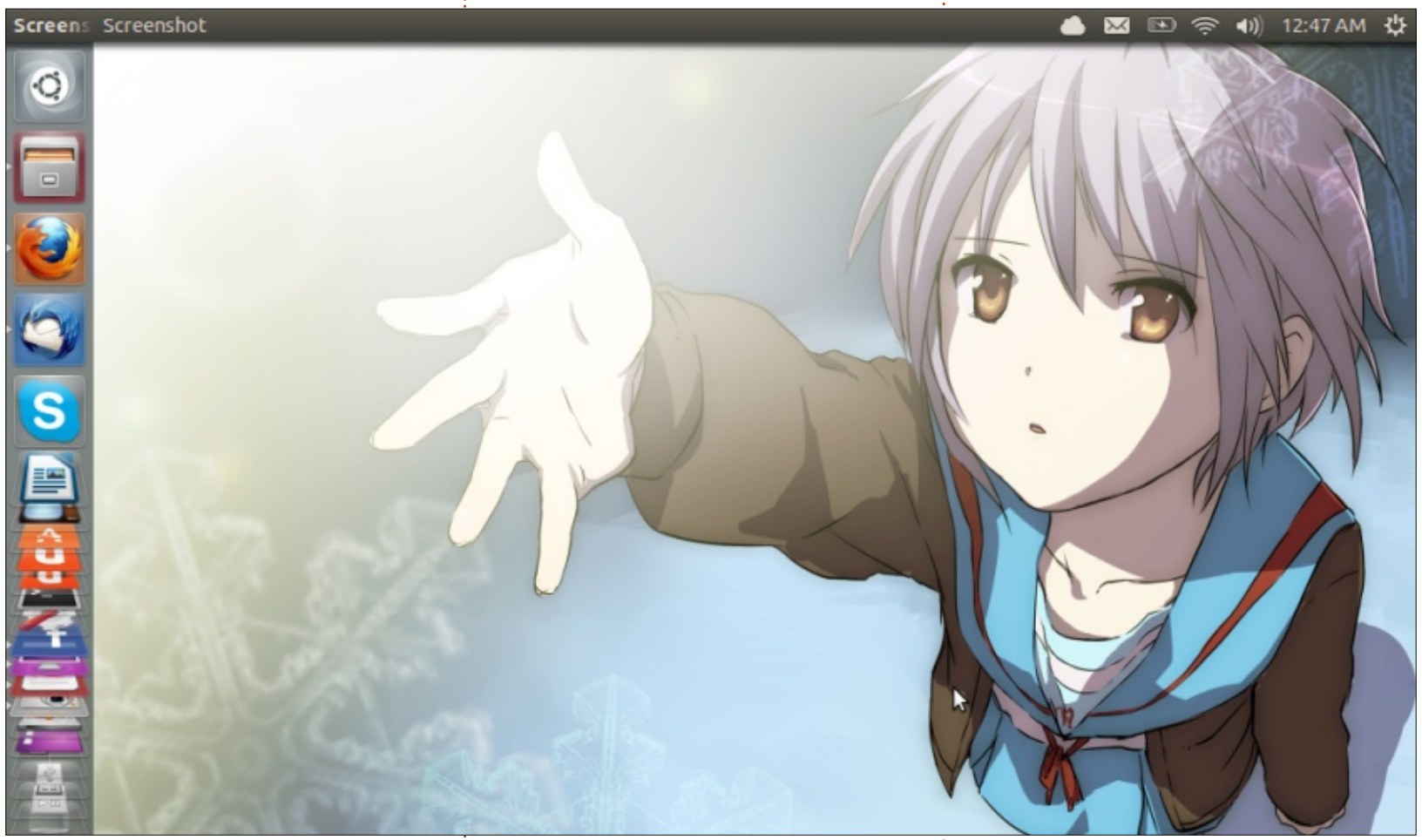
Your chance to show the world your desktop or PC. Email your screenshots and photos to: misc@fullcirclemagazine.org and include a brief paragraph about your desktop, your PC's specs and any other interesting tidbits about your setup.

Acer Aspire One Kav60 Netbook

OS - Ubuntu 13.04
Resolution - 1024x600
Processor - Intel Atom N270 32-bit
Graphics - Intel GMA 945GME x86/MMX/SSE2
Ram - 1 GB
Drive - 160 GB

At first, I was thinking of installing Xubuntu, Lubuntu or another lighter GNU/Linux distro, but I noticed that the Youtube videos played with no tearing only on Ubuntu. Also with no tearing on video players with compositing. The system runs a little bit laggy, but not so bad for a netbook with these specs. I'm waiting to get a new laptop soon, so that I can use Ubuntu more fully.

Aya Skull



MY DESKTOP

My daughter, aged 8, has the use of my old laptop. It would be pretty much unusable with Windows, even WinXP by now. She's very happy to tell everyone that her computer is "Linux Mint", and it runs Xfce with Cairo-dock (which she loves) just fine.

My O/S:
Linux Mint 13 (Maya, July 2012, LTS version), 32-bit
Xfce 4.10

My hardware:
Dell Latitude D610 (circa 2006)
Processor: Intel Pentium M, 1.73GHz single processor
RAM: 1 GB, DDR2
HDD: 40 GB
Video: onboard ATI Mobility Radeon X300
Screen: 14", displaying at 1024 by 768

Les Waters

MY DESKTOP

I've been using Linux Mint for almost as long as I've been using Linux, about four years. Right now I'm running Linux Mint 15 Cinnamon. I have conky on the side, which lists all sorts of system information, the setup can be downloaded here: http://brianhanson2nd.deviantart.com/art/Conky-V-2-363203874. I use Variety to change my wallpaper every five minutes. http://peterlevi.com/variety

My Equipment:
Intel i3 CPU
8 GB RAM
500 GB HDD
Nvidia GeForce 310M Graphics Card

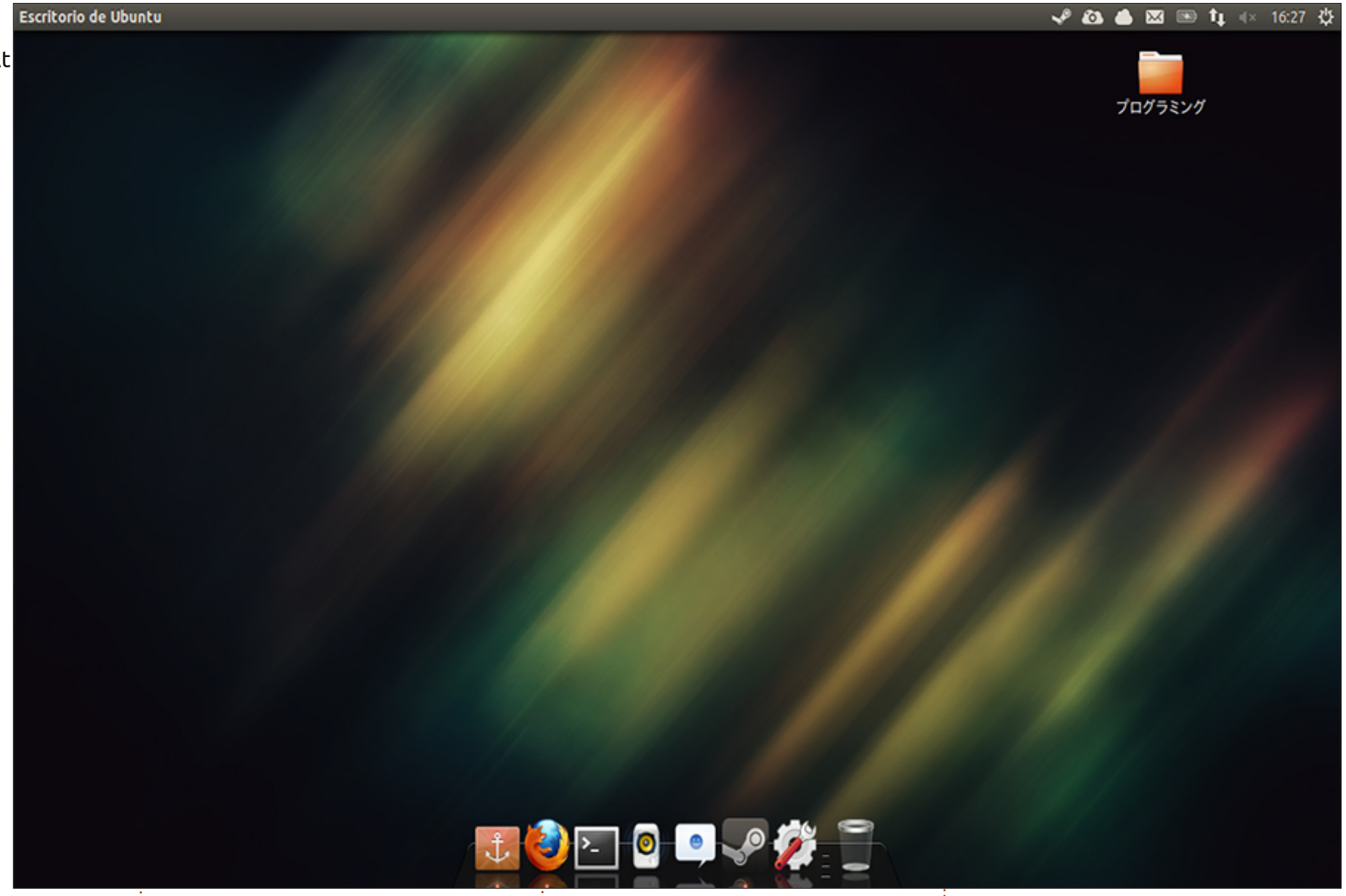
Nathan Salapat

MY DESKTOP

I have been using Ubuntu since 2012. At the moment, I use Ubuntu 13.04 with Unity and Cairo Dock. The Unity launcher has been hidden.

I use an HP G62 Laptop
Processor: Intel Core i3
Graphics: ATI Radeon 5000
4 GB Ram

Juan Carlos



HOW TO CONTRIBUTE

FULL CIRCLE NEEDS YOU!

A magazine isn't a magazine without articles and Full Circle is no exception. We need your opinions, desktops, stories, how-to's, reviews, and anything else you want to tell your fellow *buntu users. Send your articles to: articles@fullcirclemagazine.org

We are always looking for new articles to include in Full Circle. For help and advice please see the **Official Full Circle Style Guide**: http://url.fullcirclemagazine.org/75d471

Send your **comments** or Linux experiences to: letters@fullcirclemagazine.org
Hardware/software **reviews** should be sent to: reviews@fullcirclemagazine.org
Questions for Q&A should go to: questions@fullcirclemagazine.org
Desktop screens should be emailed to: misc@fullcirclemagazine.org
... or you can visit our **forum** via: fullcirclemagazine.org

FCM#78

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