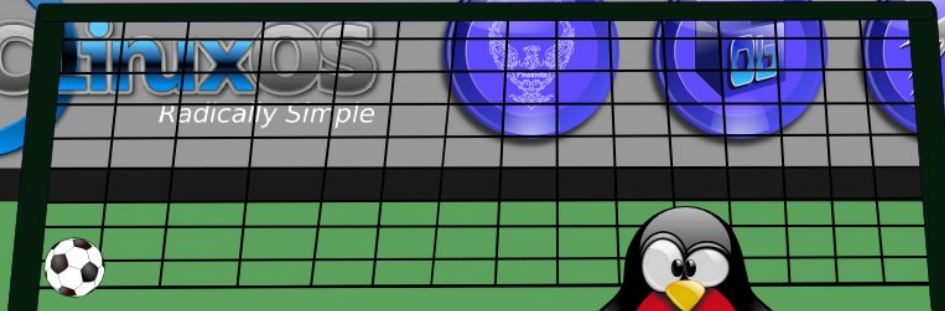
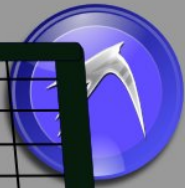


The **NEW** PCLinuxOS Magazine

Volume 43

August, 2010



Xfce 4.6.2:
Xfce Settings Manager, Part 3

Xfce 4.6.2:
Customize Your Xfwm Theme

Xfce 4.6.2: Customize
Thunar's Context Menu

OpenOffice 3.2: Calc

Linux IS Ready For The Desktop

Command Line
Interface Intro: Part 11

Video Encoding: Step-By-Step

Firefox Add-ons:
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Alternate OS: Haiku, Part 2

Computer
Languages A to Z: Modula2

Game Zone: World Of Goo

Inkscape Tutorial: Clipping Objects

And much more inside!

Welcome From The Chief Editor

As the dog days of summer bear down on us, things are remaining "hot" with PCLinuxOS. Recently, we've seen the release of the quarterly update for the different desktop flavors of PCLinuxOS. These bear a new naming schema, where "2010.07" refers to the 2010 release, from the seventh month, or July.



Additionally, PCLinuxOS has managed to garner much well-deserved acclaim in various reviews of Linux distributions. Of course, the added benefit of this recent flurry of good reviews is the influx of new users to the PCLinuxOS ranks.

In fact, we are seeing lots of new users in the PCLinuxOS Forum. We are seeing users moving to PCLinuxOS from the various versions of Windows. We are seeing users moving to PCLinuxOS from OS X. And we are seeing users moving to PCLinuxOS from other Linux distributions. As PCLinuxOS receives all of these new users, it's important to remember not only our Forum manners, but to also make them feel welcome to our Linux home.

This month, I'd like to announce that Meemaw will fulfill the role of a second assistant editor for the PCLinuxOS Magazine. She has been an invaluable asset over much of the past year, helping with articles, editing and layout of the magazine. Without her assistance, I'm not sure I'd have had the time or energy to focus on (or implement) the improvements in The NEW PCLinuxOS Magazine that you have seen over the past year. So, congratulations Meemaw, and thank you!

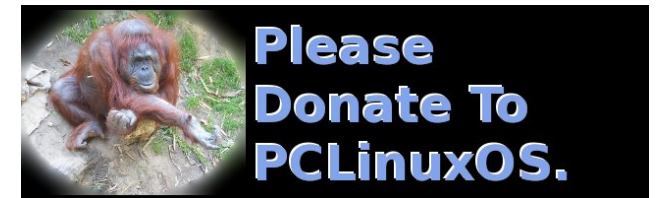
We have plenty of items that we hope will keep your interest this month. First, I conclude my series on the Xfce 4.6.2 desktop environment. I provide **Xfce 4.6.2: The Xfce Settings Manager, Part 3** article, as well as **Xfce 4.6.2: Customize Your Xfwm Theme** and **Xfce 4.6.2: Customize Thunar's Context Menu**. Meemaw continues her look at the OpenOffice office suite, with a look at **OpenOffice 3.2: Calc**.

Speaking of article series, critter continues his most excellent series, with **Command Line Interface Intro: Part 11**. Eronstuc continues his series on computer programming languages, with **Computer Languages A to Z: Modula2**. djohnston continues his series of articles that take a look at alternate operating systems, with his **Alternate OS: Haiku, Part 2** article.

Leiche walks us through using jMencode in his **Video Encoding: Step-By-Step** article. Xyus gives us another installment of Game Zone, with his **Game Zone: World Of Goo** article. Wamukota lists the reasons he feels that **Linux IS Ready For The Desktop**. I detail yet another Firefox add-on, with my **Firefox Add-ons: Xmarks Marks The Spot** article. And, we have **three new testimonials** this month. And Timeth provides us an Inkscape tutorial, to help us learn how to clip objects, in his **Clipping Objects Together To Create Cool Graphics in Inkscape** article.

Of course, ms_meme's regular columns, **Forum Foibles** and **ms_meme's Nook** are back, as well as georgetoon's **Double Take & Mark's Quick Gimp Tip**. And, this month's cover is by Timeth, commemorating Spain's win in the FIFA World Cup.

Until next month, I wish you peace, happiness, serenity and tranquility.



Linux IS Ready For The Desktop

by Alain Baudrez (Wamukota)

I've read many postings and rants about Linux not being ready for the desktop, while my experience tends to state the opposite. **Linux is** – and has been for the last couple of years – **ready for the desktop**.

It all boils down to the type of audience you speak to.

Windows has been developed with the industry in mind. That implies that you have a group of well-trained IT guys who do the Windows laundry while you, at your desk, can work without bothering whether the latest patches are applied, the AV is up to date, Anti-malware filters are in place, ...

But let's look at a typical home user.

What does 'Jane Doe' do (or would like to do) with her computer?

- * Browse the web
- * Send & Receive eMail
- * Instant Messaging
- * Twitter
- * Skype
- * Rip audio to MP3
- * Play and organize her music collection
- * Transfer music between PC and MP3 player
- * Upload pictures/movies from a digital camera
- * Red eye removal and minor enchantments of pictures
- * Watch movies on DVD
- * Edit her own video recordings

- * Burn CD/DVD
- * Write a few letters
- * Keep budget in check with a simple spreadsheet
- * Make small posters for festivities
- * Create and maintain a website
- * Play games
- * Install new software
- * Interact with wireless networks and bluetooth devices



Alain Baudez, a.k.a. Wamukota

Those actions seem familiar and they 'can' all be done with the pre-installed Windows. Correction. Not if you stick to your pre-installed Windows. For most of those actions, you need to buy expensive software, which for most of us is not tax deductible.

Looking at that list through Linux glasses, with the exception of some games, all can be done using a free modern state of the art Linux distribution. So, Linux clearly has the edge on Windows here,

and Windows being pre-installed anyway, we always have a fall-back for the few things that can not be done through Linux. Should Windows not come pre-installed, Linux would struggle, especially in the games area. But the simple fact that Windows comes pre-installed plays into the hands of a dual-boot Windows/Linux solution.

What should the same Jane Doe not have to do?

- * Tamper with the system
- * Bother about the legal status of the OS
- * Fight malware and other nastinesses of the Internet
- * Be responsible for maintaining system integrity through updates and patches
- * Buy new hardware every 3 years to be able to accommodate the latest imposed upgrades
- * Buy expensive software

When using Windows, this is just what Jane Doe has to do to keep her box running. The problems and performance loss inherent in the Windows system are a far cry from the fun and joy of having a computer she expected.

A modern Linux distribution is much simpler to maintain. Its concepts prevent a user crippling the system by disallowing her to venture in typical system folders. There are no legal issues. The distribution can be copied, passed on, etc., without problems.

There are almost no risks that viruses or malware will cripple the system.

Installing software is free and comes from a certified single set of servers.


Linux runs much longer on the same hardware.

All in all, Linux has the edge on Windows here too.

The general consensus is that Linux is hard to install. One cannot expect an average user to install Linux to dual-boot with their current Windows installation.

In fact, Linux is no harder to install than any other Operating System. But since Windows comes pre-installed, all the user must do is to activate the end user license to get going. The only thing we – Linux users - must do, is to install it on their computer in dual-boot mode, and give them a few how-tos on how to work with it. Isn't that something we all have done in the past many times?

Linux is ready for the desktop if you never hear back from those converted users again. It works and just keeps on working, something that cannot be said about the other pre-installed operating system. ○

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The **PCLinuxOS** Magazine

PCLinuxOS
Radically Simple

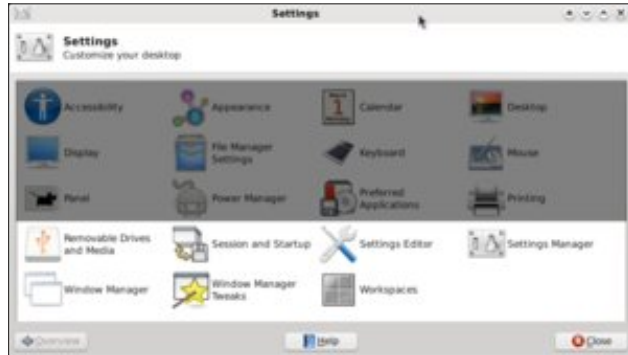
Screenshot Showcase



Posted July 28, 2010, by cidtux, running Xfce

Xfce 4.6.2: Xfce Settings Manager, Part 3

by Paul Arnote (parnote)



Over the past couple of months, we've been taking a close-up look at the Xfce Settings Manager. This month, we finish up the series on the Xfce Settings Manager, taking a look at the last group of settings that are available.



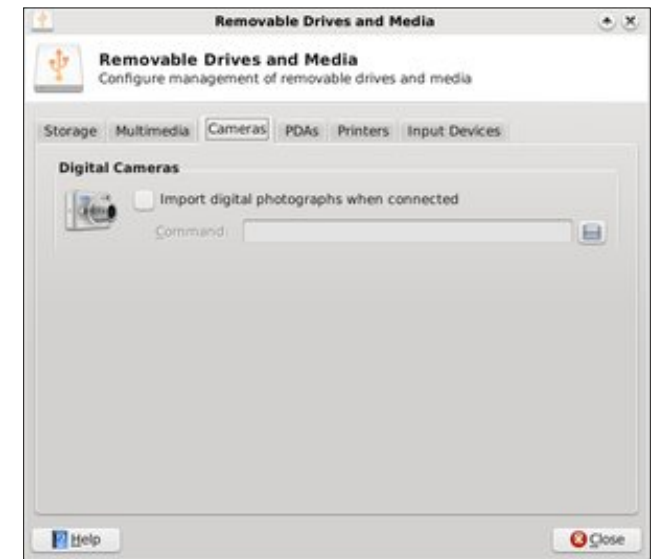
Removable Drives and Media

The first tab under Removable Drives and Media, Storage (bottom of previous column), allows you to set how Xfce handles options for removable drives and media. Under Removable Storage, the options should be fairly self explanatory. Under Blank CDs and DVDs, you can check the box to cause Xfburn (the default optical disk burning program in Xfce) to open when you insert a blank CD or DVD. The screen shot above shows the default settings in Phoenix 2010.



Under the second tab, Multimedia, we can set up how Xfce handles specific types of media when they are plugged in or a disk is inserted. You will most likely have to make some changes here, as Totem is not installed in the default installation of Phoenix 2010. You can either install Totem from the

repository (but be aware that it will pull in quite a few Gnome dependencies), or you can install another multimedia playback program (watch which dependencies are pulled in), or change from Totem (in the screen shot above) to gxine for video, and Listen Music Player for audio CDs. If you like to sync your portable music player with your MP3 collection, you also may want to install a program from the repository, via Synaptic, to handle or manage the transfer of music between the files stored on your computer and those on your portable music player. Activating the "Portable Music Players" setting is as easy as checking the box in that category, and supplying the name of the program you are using to manage that portable music player.



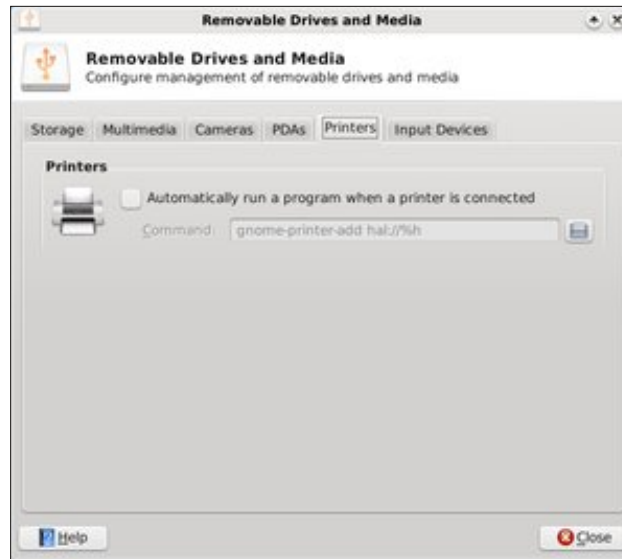
The third tab of Removable Drives & Storage, Cameras, allows you to set up how Xfce handles the

importing of photographs from your digital camera, when it is connected to your computer.



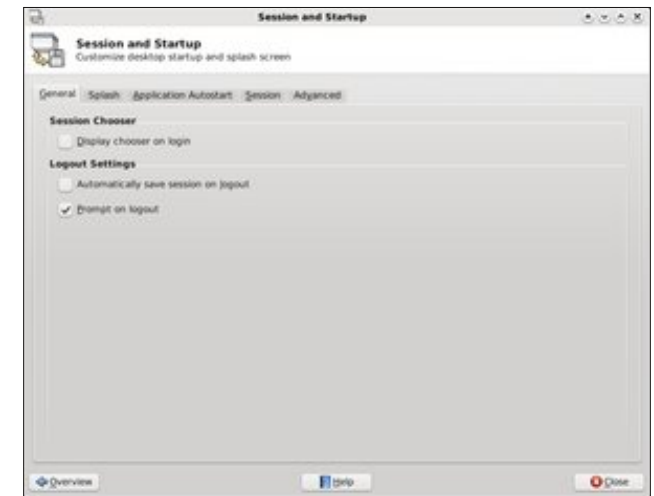
The fourth tab, PDAs, allows you to specify how the information on your PDA and the information on your computer are synced, as well as which program you'd like to use to accomplish that task.

If you are mobile with your laptop, there may be an occasion where you need to hook up to a printer (not necessarily your own). If this is you, then this, the Printers tab, is for you. Check this box to run the `gnome-printer-add` program whenever a printer is connected to your computer. This will aid in establishing that connection, and helps tell Xfce how to manage printing requests. You will have to also set up the printer in the Printing settings of Xfce, as well as setting that printer up in PCLinuxOS Control Center.



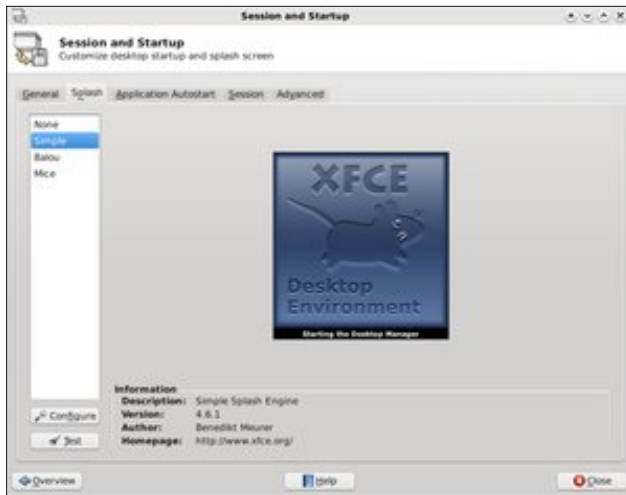
In the sixth and final tab of Removable Drives & Storage, Input Devices, you can control any special actions that may need to take place when you attach a USB Keyboard, USB Mouse, or a tablet is connected to your computer.

Session and Start Up



In the General tab of Session and Startup settings, you can select if you want to see the Session Chooser, which allows you to resume a previous session when you log into Xfce. You can also select if you want your current session to be automatically saved when you log out, or if you want to be prompted.

Under the "Splash" tab, you can select the splash screen that's displayed when the Xfce desktop

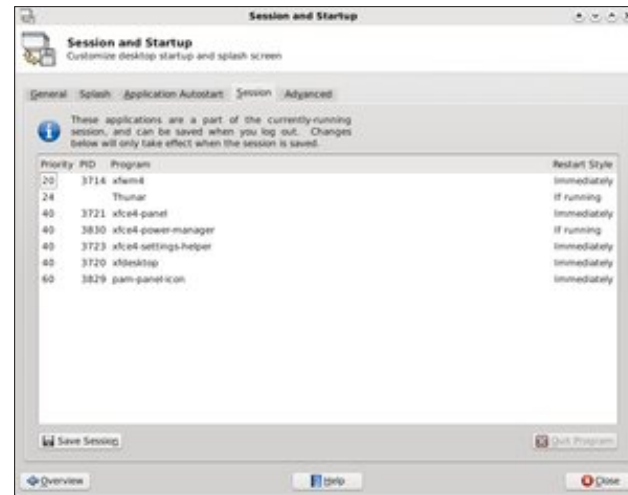


environment is loaded. The default in Phoenix 2010 is "none."



The Application Autostart tab allows you to manage which programs are started automatically when you

start up Xfce. If you change your mind about a program auto-starting, you can either come to this screen and uncheck the box, causing Xfce to ignore that program when it starts. You can also remove that program from the list altogether, by highlighting (clicking) on that program and selecting the "Remove" button near the bottom left of the window. Similarly, if there is a program you want to start whenever Xfce starts up, you can select on the "Add" button. Follow the screen prompts, and you'll have your program added to the list in no time at all.

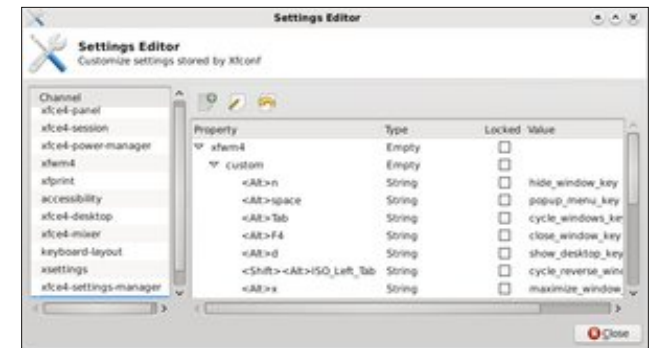


The Session tab allows us to specify which key parts of your currently running session can be saved when you log out. You can select an item from the list, double click it, and change the restart style.

Under the Advanced tab, we can tell Xfce to launch either Gnome or KDE services when it starts. We can also select to manage remote applications, by selecting that option as well.



Settings Editor

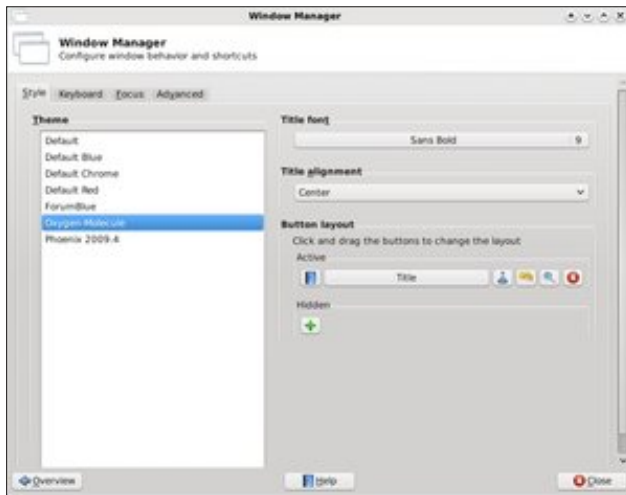


The settings editor allows you to directly edit many of the Xfce settings on your computer. Most of these settings are made in other areas of the Xfce Settings Manager. So, unless you really know what you are doing, or if you are feeling particularly adventurous,

you can edit the Xfce settings here, en masse. One other feature that you may find useful is to "lock" the settings here, so that they cannot be changed until it is first unlocked. This is particularly useful on a computer with other users, or with less technically savvy users, to prevent them from making system wide Xfce settings.

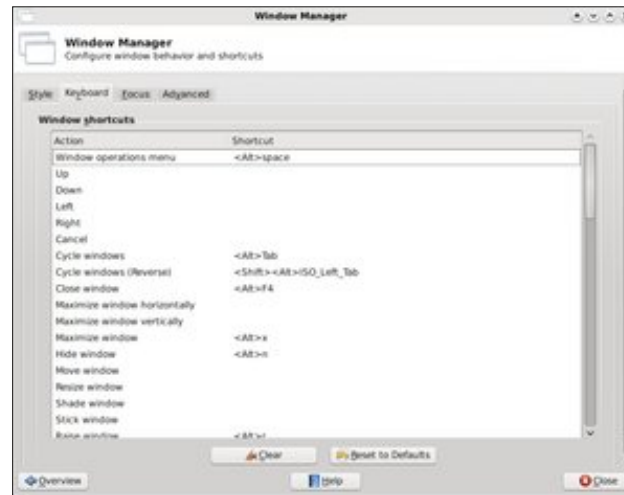
We will skip the next icon in the list of Xfce Settings Manager, since it merely launches another instance of the Xfce Settings Manager.

Window Manager



Style, the first tab under the Window Manager settings, allows us access to changing the style of the Xfce window decorations, which are managed by the xfwm window manager. The default settings in

Phoenix 2010 are reflected in the above screen shot. We'll talk more about xfwm themes in another, separate article about how to make your own custom xfwm theme.



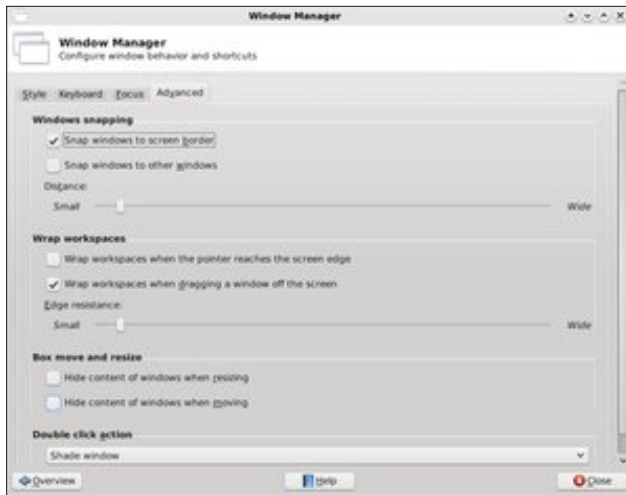
Under the Keyboard tab, we can define keyboard shortcuts for interacting with the Xfce windows. For example, I have become accustomed to using Alt + Spacebar to access the window operations menu (upper left corner of the window, on the title bar of the window). This is definitely a throwback to my days as a Windows user. Similarly, I've defined Alt + F4 as the key stroke combination that closes (exits) a window. To set the keyboard shortcuts, simply click on the item you want to define, then hit the key or key combination you want to use to activate that window setting. And window settings exist for changing between the virtual desktops on your system as well. Scroll through the list to see all the options you can access from the keyboard. Just be careful when you are defining the keyboard shortcuts that they don't conflict with other

commonly used keystroke combinations (like Alt + S, which is commonly used within individual programs to save a file).



From the Focus tab of the Window Manager settings, you can control how Xfce handles window focus changes. The screen shot above represents the default settings in Phoenix 2010. Also, the settings should be fairly self explanatory, so I won't belabor them here.

On the Advanced tab (first graphic, next page), you can set additional options for how Xfce manages windows. Under Window snapping, you can tell Xfce to "snap" your windows to the screen border when you slowly drag a window to a chosen screen border. You can also tell it to snap the window to the edge of other windows.

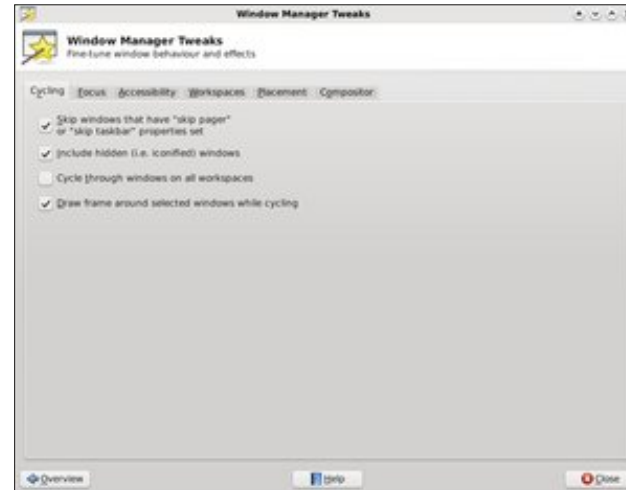


Under Wrap workspaces, you can tell Xfce what to do when your cursor gets to the edge of the screen (wrap to the previous or next virtual desktop), or if to move a window to an adjacent desktop as it is dragged off the edge of the current desktop. This allow you to drag a window from the first desktop, all the way to the fourth desktop, if you choose. And here's a bonus tip: you can also do this from the pager plug in (typically the lower right corner of the bottom panel). Just click on the icon representation of the program you want to move, and drag it to the desktop you want it to appear on. Release the mouse, and your program will be happily displayed on the new/different desktop.

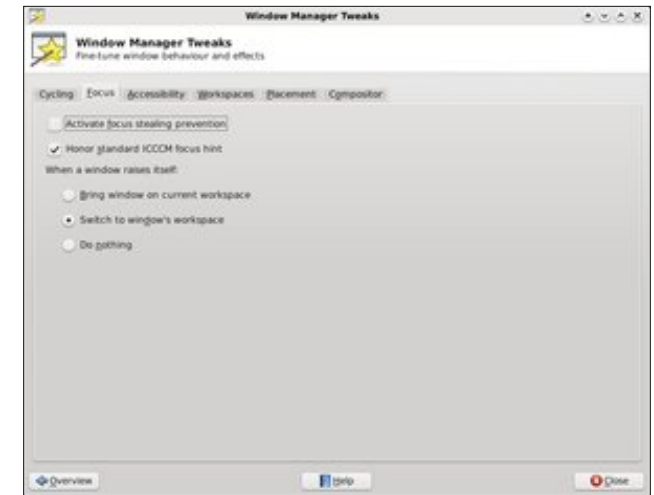
From the Box move and resize settings, you can tell Xfce to hide the contents of windows that are being moved or resized. This is a particularly helpful setting if the computer you are using Xfce on has limited video RAM, a slower processor, or both.

Finally, the Double click action allows you to set the action Xfce will take when you double click on a window's title bar. The default value is to maximize the window. I've changed the behavior on my copy of Phoenix 2010 to Shade window, due to how I tend to work with Scribus when I'm laying out the magazine (so I can get some of Scribus's child windows out of my way temporarily when I'm working in another window).

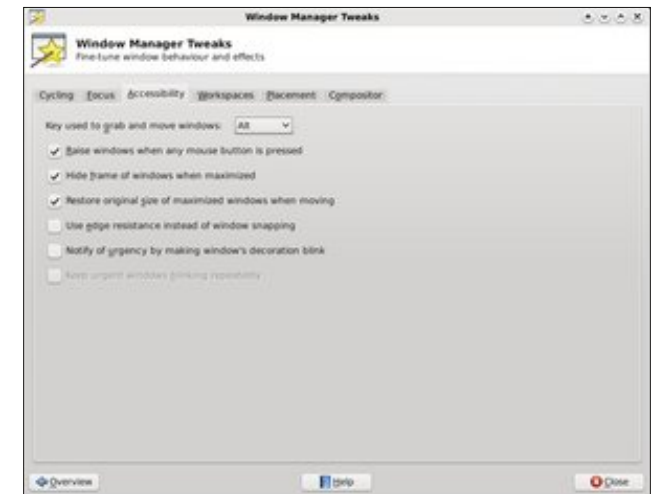
Window Manager Tweaks



From the Cycling tab of Window Manager Tweaks, you can set how Xfce cycles through the available program windows you may have running. Typically, most users will want to set up the Alt + Tab key in the Keyboard tab of the Window Manager window to cycle through the available program windows. This tab allows the user to further tweak that Xfce behavior.

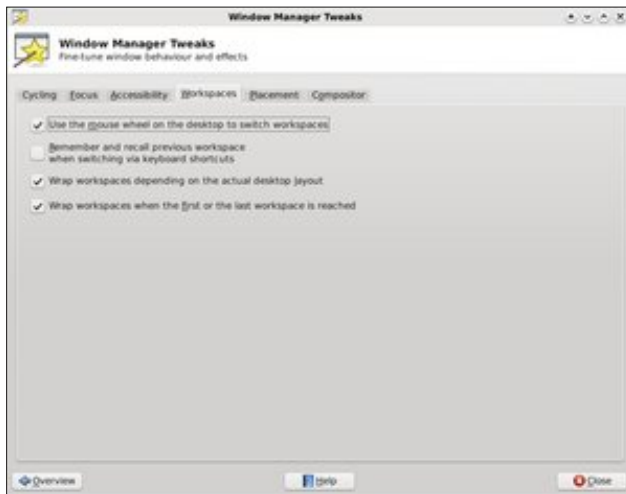


Under the Focus tab, you can further tweak and tune how Xfce manages the change in window focus. Probably one of the more important setting here is determining how a window raises itself when called.



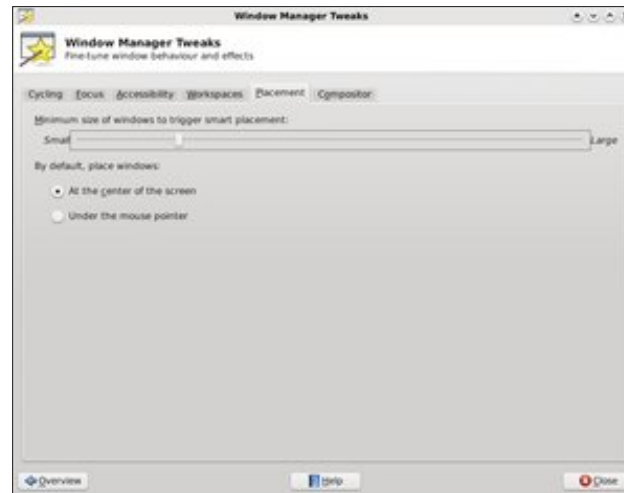
You can opt for the window to be brought to your current workspace, switch to the window's workspace, or do nothing at all.

The Accessibility tab (previous page) gives you even more options to further tune how Xfce manages the windows on your computer. Probably the most important setting here allows you can define the key to use to grab and move windows when the title bar of the window isn't visible, or when the title bar is butted up against the top edge of the window. Netbook users, as well as other users who have limited screen real estate, will find this particular feature useful. Just press the specified key (default is the Alt key), and drag the window until what you want to see is visible.



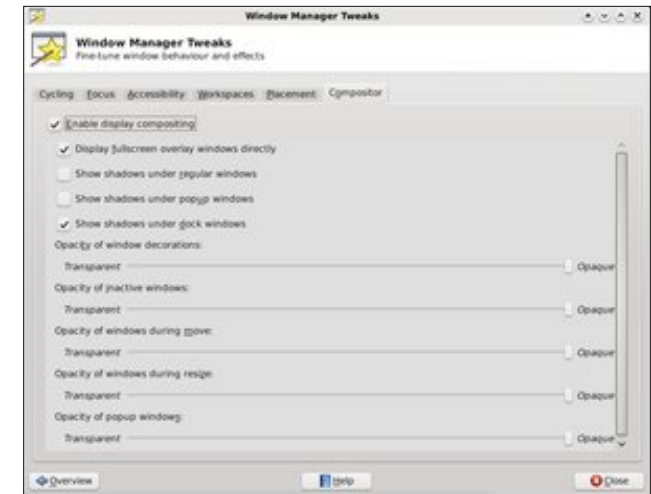
The Workspaces tab allows you to set extra options for how Xfce manages and allows you to access your workspaces, a.k.a. virtual desktops. You can set to allow the mouse wheel to switch desktops

when you hover over the pager plug in and rotate the mouse wheel. You can also tell Xfce to remember and recall the previous workspace when switching via keyboard shortcuts. If you have a keyboard shortcut defined for switching desktops (e.g., Ctrl + Alt + Left Arrow or Ctrl + Alt + Right Arrow), you can tell Xfce to go to Desktop 1 from Desktop 4 when you press Ctrl + Alt + Right Arrow, or from Desktop 1 to Desktop 4 by pressing Ctrl + Alt + Left Arrow.



With the Placement tab, you can control how Xfce places new windows on the screen. The above screen shot shows the default settings in Phoenix 2010. The settings, I believe, are self explanatory.

The last tab, Compositor, allows you to enable or disable the built-in Xfce display compositing. No, it's not quite up to the compositing abilities of KDE 4 or Compiz Fusion, but it does have a few options for

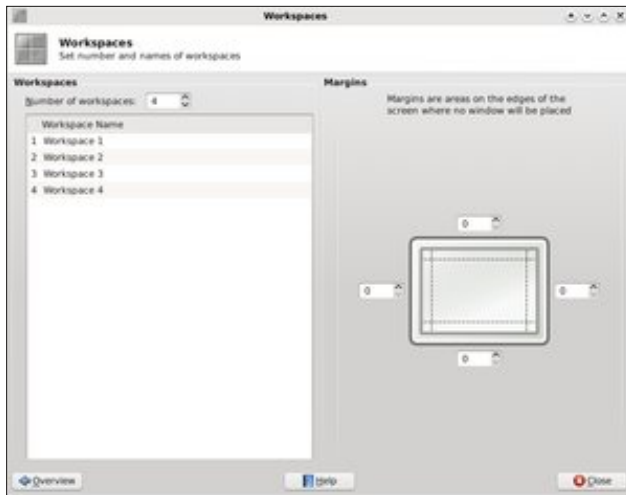


you to select. You can certainly disable display compositing, which is especially useful if you have an older computer with minimal amounts of video RAM.

Workspaces

Under Workspaces (next page), we can define a couple of different settings. First, in the left hand pane of the window, we can specify how many workspaces, or virtual desktops, we want to use. The default is four workspaces. If you want, you can also rename the workspaces.

On the right hand pane, you can set up window margins. These are areas of the screen where Xfce will not place a window. This is useful, for example, if you have a Conky script running and don't want to cover it up with windows on your desktop.



Conclusion

There you have it – a complete look at all the options available to you via the Xfce Settings Manager. Thanks to these settings, Xfce has a lot of configuration options, while maintaining its lightweight desktop environment status. If you use Xfce, you owe it to yourself to explore the configuration options that have been covered in this article, as well as the two previous articles in the series. It's unlikely that you will cause any permanent damage, although it is possible. But now, at least, you can delve into these configuration settings with a bit more knowledge of what these individual settings allow you to do. ○

Screenshot Showcase



Posted by OrdiDoc, July 14, 2010, running KDE4

Testimonial: Greetings from a New PCLinuxOS User

by bluejay

Howdy!

Well, let's see. I've been at this Linux bit for quite a few years, starting with Mandrake 8.1, which I purchased new in a box. (That's about 8 or more years ago.) It was a lot of fun tooling around with this geeky new OS back then, and I was thrilled with the concept of a community surrounding it (and Linux in general). The OS was pretty amazing too!

I used Mandrake for a year or so, but eventually moved to RedHat because I saw it as a "big boy's" Linux and more "hard core" and challenging.

Then, Fedora came out and I used that for many years, until one day, (out of nothing more than boredom and curiosity), I decided to give Ubuntu a try and was instantly hooked for the next several years.

During all this time I played around with about a dozen other distros, from Debian to Gentoo to FreeBSD. Although I'd see PCLinuxOS pop up on the radar from time to time, I really never paid much attention, until the other day when I noticed that it had reached the #2 spot on a certain major Linux site. I also read a number of glowing reviews about it. So, the other day I decided to give it a try. I found that not only was it gorgeous, but it contained everything I needed and nothing I didn't. It was perfect.

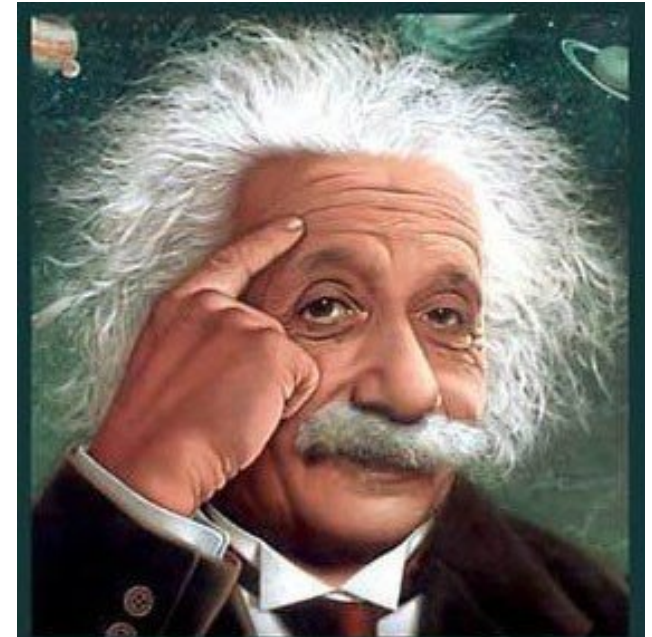
My particular interest in it revolves around the server-end of things, and it seems to have a



wonderful array of server features built-in. That's one of the things that impressed me. BIND, Host definitions, FTP, Mail, etc.

Well, That's my story and I'm sticking to it. Anyway, I'm glad to be here and looking forward to fitting into the community here!.

- BJ 



It's easier than $e=mc^2$
It's elemental
It's light years ahead
It's a wise choice
It's Radically Simple
It's ...



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Follow PCLinuxOS on Twitter!

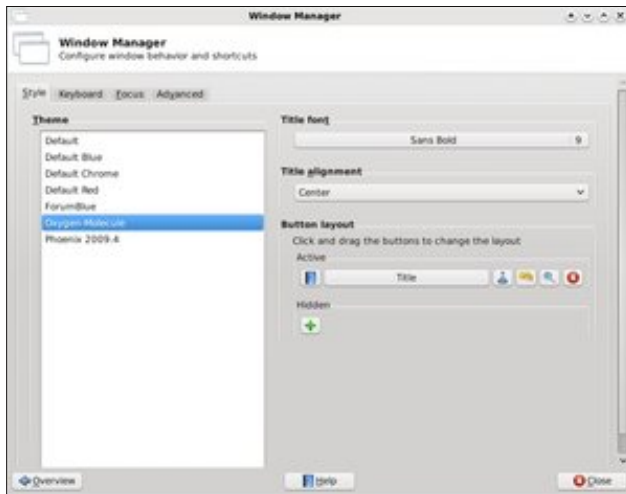
<http://twitter.com/iluvpclinuxos>

Xfce 4.6.2: Customize Your Xfwm Theme

by Paul Arnote (parnote)

It may sound difficult, but creating your own custom Xfce Window Manager (xfwm) theme is probably one of the easiest customizations you can do on your Xfce installation.

From the Xfce Settings Manager, going in to the Window Manager applet allows you to choose the xfwm theme to use on your desktop. This xfwm theme controls the appearance of your window decorations, including the titlebar, the window borders, and the shade, minimize, maximize, close, sticky, and system menu buttons. Here's what you will see when you open the Window Manager applet:



Since we've already covered the Window Manager applet in the Xfce 4.6.2: Xfce Settings Manager Article elsewhere in this issue, we won't rehash it

here. Of the seven included xfwm themes included in the default installation of Phoenix 2010, I created four of them. And you can make them as simple or complex as you like.

Here are six xfwm themes I've created, and they will serve as the basis for our discussion on creating your own custom xfwm theme:



From top to bottom, the xfwm themes are called: AgualemonBlack, Default Blue, Default Chrome, Default Red, Forum Blue (based on the blue colors of the default SMF theme in the PCLinuxOS forum), and Phoenix09 (based on the colors of the default wallpaper of the Phoenix 2009.4 release).

The Basics: Getting Started

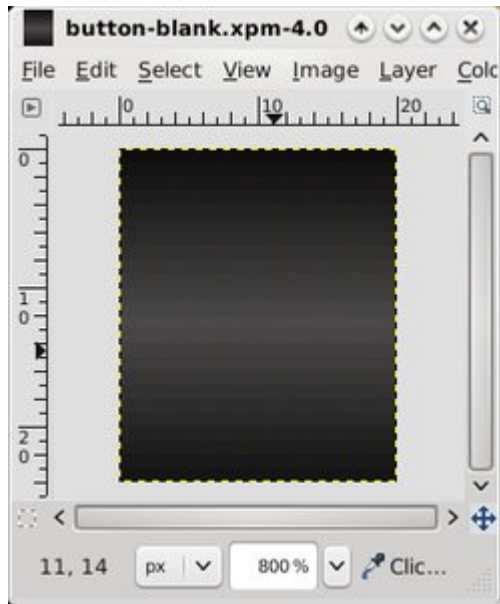
Your xfwm themes are stored in the `/usr/share/themes` directory. Each xfwm theme has its own directory there, bearing the name of the xfwm theme, and the graphic files for the theme are stored in the `xfwm4` sub-directory. You will need root access to this folder to make any changes to the themes that are there, or for storing your custom theme there. I suggest you store your custom themes in their own folder somewhere in your `/home` directory (mine is just called "themes"), then copying the entire directory there when you are ready to test your custom theme. This way, you are not working as root and not taking the risk of messing up the other xfwm themes already stored on your computer. For our discussion, we'll use AgualemonBlack as our example.

What's Needed

You will need to create a minimum of 42 graphic files to have a full xfwm theme. These files are small, and quite easy to make. The files, typically stored as `*.xpm` files, are easily created in Gimp. As such, all

the tools available in Gimp are at your disposal for creating your custom xfwm theme.

Because of the small size of the graphics, you will find it advantageous to use Gimp's zoom tool. I find that zooming in to the maximum of 800% allows me to work comfortably with the minuscule graphic files included in the xfwm themes. Below is an example of my Gimp window when I'm working on a xfwm theme graphic. I used the gradient tool, set to provide a bilinear gradient, using dark gray and black as my foreground and background colors.



Remember those 42 individual graphic files I told you that you need? Here's a list of them, along with the sizes I used for my six themes, with the width followed by height, in pixels:

File Name	W	H	File Name	W	H	File Name	W	H
bottom-active.xpm	11	4	maximize-active.xpm	20	24	title-1-active.xpm	5	24
bottom-inactive.xpm	11	4	maximize-inactive.xpm	20	24	title-1-inactive.xpm	5	24
bottom-left-active.xpm	11	11	maximized-pressed.xpm	20	24	title-2-active.xpm	5	24
bottom-left-inactive.xpm	11	11	menu-active.xpm	20	24	title-2-inactive.xpm	5	24
bottom-right-active.xpm	11	11	menu-inactive.xpm	20	24	title-3-active.xpm	5	24
bottom-right-inactive.xpm	11	11	menu-pressed.xpm	20	24	title-3-inactive.xpm	5	24
close-active.xpm	20	24	right-active.xpm	4	11	title-4-active.xpm	5	24
close-inactive.xpm	20	24	right-inactive.xpm	4	11	title-4-inactive.xpm	5	24
close-pressed.xpm	20	24	shade-active.xpm	20	24	title-5-active.xpm	5	24
hide-active.xpm	20	24	shade-inactive.xpm	20	24	title-5-inactive.xpm	5	24
hide-inactive.xpm	20	24	shade-pressed.xpm	20	24	top-left-active.xpm	5	24
hide-pressed.xpm	20	24	stick-active.xpm	20	24	top-left-inactive.xpm	5	24
left-active.xpm	4	11	stick-inactive.xpm	20	24	top-right-active.xpm	5	24
left-inactive.xpm	4	11	stick-pressed.xpm	20	24	top-right-inactive.xpm	5	24

You can also add optional graphics to this list for buttons that have a "toggled" state. Such buttons would be the "stick" and "shade" buttons. As such, you can add the following to the above list, bringing the total number to 48 graphic files for a full xfwm theme:

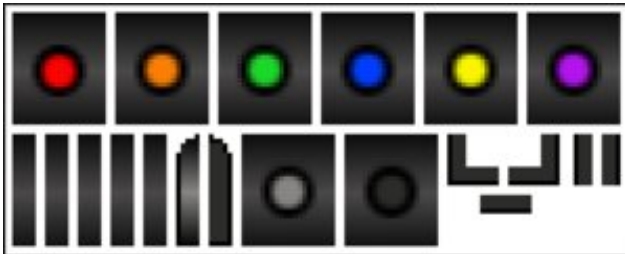
shade-toggled-active.xpm
 shade-toggled-inactive.xpm
 shade-toggled-pressed.xpm
 stick-toggled-active.xpm

stick-toggled-inactive.xpm
 stick-toggled-pressed.xpm

The best way to get a handle on what the toggled state of a button does is to see it in action. Switch your xfwm theme to the Oxygen-Molecule theme, and select the "shade" button. You can also go to the `/usr/share/themes/Oxygen-Molecule/xfwm4` folder and take a look at how the graphics files appear. Also, in keeping with the sizing scheme of the rest of our xfwm theme, all the buttons will be the same size. In our case, that will be 20x24.

I have also found it makes your life much easier – at least while creating the xfwm theme – to create and save a blank button. You can use this blank button as the basis for all your other buttons, title bar graphics, and the top left and right corner graphics. In fact, the image loaded into the previous Gimp screen shot is of the blank button I used to create the AgualemonBlack xfwm theme. Just keep reloading the blank button, make the alterations you need for each graphic, and resave it with the proper file name. This also helps keep your graphics consistent, giving your xfwm theme a much cleaner, more professional appearance. The only graphics you will need to create manually are the left, right, bottom, and bottom left and right window borders, but those are perhaps the easiest graphics to create.

Here is a collection of all the graphic files combined into one image, and blown up to 400% in Gimp:



In the top row are, from left to right, the following active buttons: close, hide, maximize, menu, shade and stick. In the bottom row, from left to right, are: title-1, title-2, title-3, title-4, title-5, top-left, top right, inactive, pressed, bottom left, bottom, bottom right, left and right.

Since I decided on not changing the window border colors or titlebar for the inactive windows, the active window border and titlebar graphics are also repeated for those items. Also, all the inactive buttons are the same, as are all the pressed buttons. This prevented me from having to draw additional button graphics and window border graphics for each individual button and window border. Rather, I just kept renaming the inactive and pressed button in Gimp (File > Save As...), until I had all of the required buttons saved. I did the same thing for the window border graphics.

More Options: themerc

Once you have all of your graphic files created, it's time to set the "other" options for your xfwm theme. We do this by including a themerc file in the `/usr/share/themes/name-of-theme/xfwm4` folder of the xfwm theme, right along with all of your graphic files. The themerc file is simply a text file that defines other aspects of the xfwm theme, such as the color of the active and inactive titlebar text, button spacing, and other items that we'll cover more thoroughly here in just a little bit.

First though, here is a sample themerc file, from the AgualemonBlack xfwm theme:

```
full_width_title=false
title_alignment=center
button_spacing=0
button_offset=0
```

```
title_vertical_offset_active=1
title_horizontal_offset_active=0
title_vertical_offset_inactive=1
title_horizontal_offset_inactive=0
title_shadow_active=false
title_shadow_inactive=false
active_text_color=#ffffff
inactive_text_color=#b6b6b6
show_app_icon=false
```

full_width_title: this option is either "true" or "false" (called boolean) and defines how the titlebar graphics are arranged. If it is set to "true," the center titlebar graphic is repeated as many times as necessary to cover the full width of the titlebar. If you set it to "false," the center titlebar graphic is repeated only enough times to appear behind the actual titlebar text.

title_alignment: specifies the alignment of the titlebar text. The options are left, right and center.

button spacing: defines the number of pixels between buttons.

button_offset: allows you to specify how many pixels to shift the buttons, relative to the corresponding window border (and not the frame border). For example, a setting of "10" would move the buttons at the upper left corner away from the left window border 10 pixels, and move the buttons at the upper right corner away from the right window border 10 pixels.

title_vertical_offset_active, **title_horizontal_offset_active**, **title_vertical_offset_inactive**, **title_horizontal_offset_inactive**: these values allow you to shift the titlebar text on the specified window titlebar (active or inactive) the specified number of pixels. Except in special cases, the value is usually "0" or "1" pixel.

title_shadow_active, **title_shadow_inactive**: set to either "true" or "false," this value determines whether or not the text on the titlebar is drawn with or without a shadow.

active_text_color, **inactive_text_color**: using a six-digit hex color code (the same as used in HTML), it specifies the color for the titlebar text on the active and inactive window titlebars. If you need to know a specific color code, open up Gimp, select the color you want from the Gimp palette color selection box, and pay attention to what Gimp specifies as the HTML color code. You must always precede the six-digit hex color code with the "#" symbol. And, for what it's worth, black is #000000, light gray is #cccccc, and white is #ffffff.

show_app_icon: another boolean setting. If you set it to "true," the application's defined icon will replace the menu button. Likewise, if you set it to "false," the application's icon will not be displayed, and the menu button will be displayed in its place.

There is another setting that we have not employed. It's called **button_layout**. It defines the order of button layout on the titlebar of the window. Use caution with this, as defining the button layout will eliminate any choice the end user will have, and

should be avoided unless absolutely necessary. With that in mind, here is how the `button_layout` settings go:

```
# button_layout :
#   O = Option menu
#   T = Stick
#   H = hide
#   S = shade
#   M = maximize
#   C = close
#   | = title
button_layout=OT|SHMC
```

There are additional things you can do, like make your xfwm theme "pick up" the colors from the Gtk+ theme. We won't be going into all of that here, as it's a quite involved (albeit relatively easy). If you are interested in exploring how to do this, you can check out the [xfwm theme how-to page](#) from the Xfce Wiki.

Conclusion

As you can see, creating your own xfwm themes is actually quite easy. Also, there are enough options available to allow you virtually unlimited creativity. So unleash that creativity, and get started creating and tweaking your own custom xfwm theme. You have the opportunity to make your Xfce desktop experience uniquely yours, without too much trouble at all. ○

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Command Line Interface Intro: Part 11

by Peter Kelly (critter)

A handful of the more useful commands

So far in this series, we have looked at most of the important aspects of working on the command line. This time I want to spend a little time looking at some of the more useful utilities available in a Linux distribution.

This is not meant to be an exhaustive list. There are far too many such commands available for that, but is a look at those utilities that you should find in almost any distribution, either installed by default or available from their repositories.

These are commands that you may not use every day, but you will find invaluable when you do need them. They are commands that I have not already covered, or that are deserving of a little more explanation. I am not going to cover every possible feature of the commands. The manuals are there for that, but I hope to cover them in enough detail to give a good understanding of what the command is capable of.

apropos {string}

Ever been stuck at the command line, knowing what you want to do, but can't for the life of you remember the name of the command? Of course, we all have, and this is where this command saves the day. It searches a database of manual page descriptions for things that match the string that follows:

```
jane@daisy > ~ $ apropos calc
bc (1) - An arbitrary precision calculator
calcomp (4) - Calcomp input driver
cvt (1) - calculate VESA CVT
dc (1) - an arbitrary precision calculator
Digest (3pm) - Modules that calculate digests
Digest::file (3pm) - Calculate digests from files
gtf (1) - calculate VESA GTF
ipcalc (1) - perform simple math
Math::BigInt::Calc (3pm) - Pure Perl module
Math::BigInt::CalcEmu (3pm) - Emulate low-level math
Math::BigInt::FastCalc (3pm) - Math::BigInt::Calc
```

at {options}{time}{date}

This enables you to have commands executed **at** a particular time. Where **cron** is used for running repetitive tasks at a particular time or frequency, the **at** command is useful for one-off tasks. To use it, the **atd** service must be running. This can be determined by issuing, as root, the command **/sbin/service atd status**

It may be started, if necessary, with the command **/sbin/service atd start**

You start the command by typing **at** followed, by a time, and optionally, a date. If the **-f** option is specified with a file name, then the list of commands to be executed are read from that file. Otherwise, you are prompted to enter them at the terminal. Entry is terminated with **Ctrl-d**.

The way time is specified is rather unusual. It may be entered in the format **15:30** for a 24 hour clock, or **3:30pm** for a 12 hour clock. You may also specify time as **midnight**, **noon**, **teatime** (4:00pm) or **now + 2 hours**, and you can add **today** or **tomorrow**. Date

takes the format **March 15** or **Mar 15**. The year is 4 digits, e.g. **2010**. You can simply specify a day, **Sat** or **Saturday**. An increment can be added to any part of the time date string.

When commands are executed any output or error messages are mailed to the user, but you must have the sendmail service installed and configured to make use of this. Instead, most users will want to redirect the output to a file.

Each set of commands is given a unique job number, and pending jobs can be listed with the command **atq**. Jobs can be removed from the queue with the command **atrm job-number**.

basename {name}{suffix}

This command is used to remove all leading directory names and, optionally, the suffix from a fully qualified file name. So, **basename /home/jane/scripts/myscript1.sh** would return **myscript1.sh**, and **basename /home/jane/scripts/myscript1.sh .sh** would return **myscript1**. You will find this command invaluable in scripts.

bc

bc is a command line calculator. That much is basically true, but it is also a gross understatement. It is a complete, compilable language, similar to **C**, which is capable of unlimited precision arithmetic. It has an extensive library of mathematical functions,

which you can include with the **-l** option, and you may define your own functions. Most people however, will use it interactively on the command line, or use it in a script to do a quick calculation or conversion.

To use **bc** on the command line, you may simply type **bc** and you will be greeted with a banner declaring version and licensing information, (this can be suppressed by using the **-q** option), and a prompt.

```
jane@daisy > ~ $ bc
bc 1.06
Copyright 1991-1994, 1997, 1998, 2000 Free Software Foundation, Inc.
This is free software with ABSOLUTELY NO WARRANTY.
For details type 'warranty'.
```

You can then simply type in expressions, such as **2+3** or **3.1416*6**, and the result will be echoed to the screen (stdout). To end the session, type **quit** or **ctrl-d**.

If you don't use the **-l** option, which will use long floating point numbers, then integer arithmetic is used. In the **bc** language, the scale of precision is zero, which means that zero decimal places are displayed. This can be changed by setting the variable **scale**. Using the **-l** option sets this value to 20 by default, which displays 20 decimal places. Note that if you use a value in an expression with more decimal places than the current value of scale, then that number of decimal places is used to display the result.

If you intend using **bc** then, as you don't need to know the version stuff every time, and bash can handle integers just fine, then you may want to put an alias in your **.bashrc** file.

```
alias bc="bc -lq"
```

The **bc** command is often used in pipelines and redirection, as in the following examples:

```
echo 3.1416*2.5 | bc -l
```

```
bc <<< 2^32
```

Or, the expressions can be read from a text file:

```
cat > sums
```

```
2+3
```

```
s(1.34) #sine 1.34 radians
```

```
scale=5
```

```
7/3
```

```
quit
```

Comments are allowed, and are preceded by a hash **#**. Without the quit statement, bc would wait for more input from **stdin**.

```
jane@daisy > ~ $ bc -lq sums
5
.97348454169531937478
2.33333
```

The **bc** command can work in any base from 2 to 16, but defaults to base 10.

To change this use the variables **ibase** and **obase** for the input and output bases. This is extremely useful if you need to convert between binary, hexadecimal, octal and decimal. The following bash script converts decimal to hexadecimal:

```
#!/bin/bash
#d2h.sh convert decimal to hexadecimal

if [ $# != 1 ]; then
    echo "Usage: d2h decimal-value"
    exit 1
fi
echo "ibase=10; obase=16; $1" | bc
```

```
jane@daisy > ~ $ ./d2h.sh 123456789
75BCD15
```

Should you want to edit this script to reverse the operation, hex to decimal, be aware that **obase** must be in **ibase** format:

```
ibase=16; obase=A
```

And hexadecimal letters must be in uppercase, since lowercase characters are reserved for bc variables. You could pipe the value through the **awk toupper** function, or use the **tr** command before passing it to **bc** to ensure that this is so.

```
cksum {files}
```

If you are transferring or compressing files, you may find this command useful. It calculates a cyclic

redundancy (CRC) value for all files specified on the command line. This value can later be used to check the integrity of the file.

```
jane@daisy > mydir1 $ cksum m*
2199948655 281389 musicfiles
1538883127 960 myfile1
```

clear

Clears the terminal screen, nothing else. Simple, but essential.

comm {option}{file_a}{file_b}

When you need to know how similar two files are, use this command. The output is in three columns:

```
jane@daisy > ~ $ comm contacts contacts2
          AMY
          BOB
    GEORGE
    GLENN
    GUSTAV
    JOHN
JURGEN
GLENN
JOHN
          SIMON
HUGH
BILL
          LEN
          BILL
          SALLY
          FRED

jane@daisy > ~ $ comm -12 contacts contacts2
AMY
BOB
SIMON
SALLY
FRED
```

lines only in **file_a**, lines only in **file_b** and lines common to both files. There is an option to suppress certain columns by listing their numbers with no spaces. **-12** would suppress columns 1 and 2, listing out only lines common to both files.

cut {options}{files}

You can use this to chop out fields of data from files specified, or from **stdin**. The options allow you to specify a list of bytes **-b**, columns **-c** or fields **-f** to cut. If **-f** is specified, the default delimiter is the tab character, but this can be changed with the **-d** option. **-s** with **-f** suppresses lines with no delimiters.

If the file contains multi-byte characters, you have the **-n** option to avoid splitting them. The list of fields can be comma separated values, or ranges **2-5**.

```
jane@daisy > ~ $ lsusb | cut -d" " -f1-4,7-20
Bus 001 Device 001: Linux Foundation 2.0 root hub
Bus 001 Device 003: Standard Microsystems Corp.
Bus 001 Device 005: Realtek Semiconductor Corp. Card Reader
Bus 001 Device 006: Canon, Inc. CanoScan N670U/N676U/LiDE 20
Bus 001 Device 007: Hewlett-Packard DeskJet 930c
Bus 002 Device 001: Linux Foundation 1.1 root hub
Bus 002 Device 002: Logitech, Inc.
Bus 003 Device 001: Linux Foundation 1.1 root hub
Bus 003 Device 002: Novatek Microelectronics Corp.
Bus 004 Device 001: Linux Foundation 1.1 root hub
Bus 005 Device 001: Linux Foundation 1.1 root hub
Bus 006 Device 001: Linux Foundation 1.1 root hub
```

Here, we have asked for a list of usb devices available on the system. The delimiter is a space character, and we are not interested in fields 5 & 6. As the delimiter is a space and the name contains spaces the final range, 7-20, has been made wide enough to catch all words.

df {options}{device_name}

This is a handy little utility to report disk free space. If name is omitted, then all **mounted** file systems are reported. Name can be a device name, such as **/dev/sdb1**, or a mount point, such as **/home**. If a directory name is used, then the report is of the entire file system on which that directory is mounted.

Options include:

- a shows all file systems including 'dummy' files systems such as /proc
- i to show inode usage rather than byte usage.
- h reports in human readable form e.g. **15G**
- t only include type file systems **-t ext4**
- T include the file system type in the report
- x exclude listed file system types.

If you are using PCLinuxOS you will find that you have an alias to the command:

```
alias df='df -h -x supermount
```

This makes the report human readable, and doesn't probe supermount file systems. Supermount is a fake file system used to handle removable media, such as CDs and floppy disks.

It is important to monitor drive usage as a full drive can cause strange problems, particularly if an application or script has not been crafted in such a manner as to trap this.

dirname {name}

The opposite of **basename**, this strips away the file name in its entirety, by searching for the last */*.

dirname /home/jane/scripts/myscript1.sh would return **/home/jane/scripts**.

If there are no leading directories, as in **myscript1.sh**, then **.** (a period specifying current directory) is returned.

du

Reports the disk usage or the space used by a directory, the default is the current directory.

This is one of the 'core utilities.' You should find it on any Linux system, as it is considered essential, although most people will use few of its twenty or so command line options. If you are using PCLinuxOS, then you will have an alias to **du** that adds the **-h** option automatically, to make the output 'human readable'. Other options that are often used include:

- c Print a grand total at the end of the output
- s Summarize only. Outputs just a total
- x Limit the count to files on one file system only

--max-depth=n Restrict the report to directories **n** levels deep. note that this is a 'long-option' and is preceded by two hyphens not one.

file {file name}

When you want to know what type of data is in a particular file, use this command.

```
jane@daisy > pixmaps $ file svg-viewer.svg
svg-viewer.svg: SVG Scalable Vector Graphics image
```

fmt

If you have a plain text file that you need to fit in a restricted screen or paper space, then this command does a nice job of it. It endeavors to retain as much of the original files formatting as possible. Spacing and indentation are kept intact wherever possible, and line breaks are done at the ends of sentences. The most useful option here is **-w** to set the width.

fmt -w 36 a-text-file will output the file in a single 36 character wide formatted column.

free

When your system seems particularly slow or sluggish, you should use this command to check your memory usage. The options **-b -k -m** & **-g** display the output in bytes, kilobytes megabytes or gigabytes respectively. The default is kilobytes.

```
jane@daisy > ~ $ free -m
              total        used         free   shared  buffers   cached
Mem:          1011         258           753         0         48        115
-/+ buffers/cache:          94           917
Swap:          520           0           520
```

Normally, you have two types of memory: physical, and virtual or swap space. When an application is started, the kernel allocates it some memory to work in. Additionally, the application may request more

memory as demand from the user increases. Data can be stored in a cache, in readiness to be operated on by the application, and temporary data and results are stored in buffers. For example, when a CD burning application is writing data, then that data is read from the hard drive much more quickly than it can be burned to the CD, and so the data is stored in a buffer where it can be accessed as required.

When the kernel has exhausted its supply of physical memory, it begins to 'swap out' some of the allocated memory contents to virtual memory to relieve the situation. Swap is much slower than physical memory, and so the result is that the machine slows down.

If you experience high swap memory usage, then something needs to be done.

You can shut down some applications, which will help, or you may have a rogue process hogging resources, remember orphans and zombies from when we discussed processes? If you need to track down which processes are using the most memory, use a tool like the command **top**. It may even be that you need to fit more memory to the machine if you regularly get this situation.

In the screen dump above, the top line is the physical memory, the bottom line swap and the middle line is the amount of memory used or free, without that which is promised to buffers and cache storage.

fuser {file or file-system}

Have you ever tried to **umount** a usb or other type of external drive, only to be told that it is busy with some process or other? Although you thought that you closed down all of the files on the device, the system thinks otherwise, and it refuses to let you safely remove it.

This command is what you need at times like this. It lists the process ID (PID) of all active files on the specified path. Now, path here can be a path name, a mounted directory, a block device such as `/dev/sdb1` or even a remote system such as an ftp server.

For our usb drive example, we need to specify the **-m** option to tell the command that what follows is a mount point or block device. The PID is not very informative, so we specify the **-v** option to get verbose output that tells us what the file(s) actually is (are). As we want to remove the device, we need to kill the process(es), so we add the **-k** option. This however, is potentially dangerous, as we have forgotten what the file is. How can we be certain that we have finished with it and saved any changes? To be safe, rather than sorry, we can add the **-i** option that interactively asks for confirmation before killing each process.

fuser -mvki /media/usb/ This will list any files open on the device and prompt you to delete them or not.

Once we have closed all the open files, we can resume the **umount** command.

gzip & gunzip

There are many file compression tools around, and **gzip** is one of the best of them. This one is so tightly integrated into so many Unix/Linux practices and processes that knowing how to use it is a must if you are going to spend any time on the command line. Using it is easy anyways, so why not? Compressed files save on storage space, not such an issue these days, and transfer much more quickly over slow transmission lines and networks.

The easiest way to use this is simply **gzip file name**. Unusually, this changes the original file and does not create a new one. The file is compressed and **.gz** appended to its name. Among the options you can pass to it are:

-d decompress -- this is exactly the same as gunzip

-s suffix to change the default **gz** to something that you prefer

-n where n is not the letter n but a number from 1 to 9 that will determine the amount of compression to be applied. 9 is the maximum compression. You may also use **-fast** or **-best** in place of **-1** and **-9**. The default here is 6, which is fine for most uses.

-r if you pass a directory to the command, then this will recursively work on the files it contains.

Multiple files may be passed on the command line as arguments.

head

head is useful for displaying just the first few lines of a file. By default, 10 lines are shown, but this can be changed by passing the number of lines required as an option, e.g. **head -15 logfile**. See also **tail**.

kill

When you find that a process is misbehaving and you want to end it, then use this command. Obviously, you must be the owner of the process or have superuser privileges to do this.

To use it, you send it a signal as an option, and provide the PID of the process(es) to be dealt with. If no signal is specified, then the default signal **TERM** is used. The signal can be specified as a number or as a name. The **TERM** signal is number **15** and is named **SIGTERM**. Some processes can trap the signal being sent to them as a sort of survival tactic, and stubbornly refuse to die. In these cases, use signal number **9**, **SIGKILL** this cannot be caught, but it is rather drastic and a more graceful closure is to be preferred.

Kill -9 1729 will stop process number 1729 in its tracks.

To get a list of all signal numbers and their names, use the **-l** option.

less

To display text files on a terminal screen in Unix, a command named **more** was created (pressing the space bar showed more text). It was quite limited and fairly clumsy to use, with most of its commands being based on the **vi** editor.

Soon, a much more capable alternative came on the scene and, perversely, was named **less**. This is one of those commands that has far too many options for me; I like to keep things as simple as possible. If there is something that you want to do with a text file, then **less** is probably capable of doing it. Usually, I just want to look at the text and scroll back and forth. For this, it is excellent.

Type **less textfile** and the beginning of the file will be displayed on screen. Press **f** or the space bar to go forward, **b** to go backward or use the arrow keys to navigate around. Press **q** to quit. What could be simpler?

To search within the file, type a forward slash, followed by the word or pattern that you want to find and press return. Use **?** in place of the slash to search backwards.

For me, this suffices. If I want to do more, I use an editor.

namei

Trace a path name to its conclusion.

This rather unusual command is actually quite useful. On my system, I have the 'all bells and whistles' version of **vi** installed – **vim**.

When I type **/bin/vi** on the command line I am given an editor that happens to be **vim**. If I use the **which** command to find out what will be executed by typing **vi**, I get this:

```
which vi
/usr/bin/vi
```

So what's going on here?

namei will follow the path name, through any links, and display a character to describe the type of each file found. These characters are:

-	regular file
b	block device
c	character device
d	directory
f :	the path name currently being worked on
l	link
s	socket
?	an error

Typing **namei /bin/vi** gives the following output:

```
jane@daisy > ~ $ namei /bin/vi
f: /bin/vi
d /
d bin
l vi -> /etc/alternatives/vi
d /
d etc
d alternatives
l vi -> /usr/bin/vim-enhanced
d /
d usr
d bin
- vim-enhanced
```

This shows the links that the command **/bin/vi** has gone through, and that I am really executing **/usr/bin/vim-enhanced**.

ps

Display information about processes running on the system.

This is how you can find out which processes are using system resources, who owns them and their PID's.

Armed with this information, you can deal with any processes that step out of line or that are just taking up space. The output can be quite long, and you will find that this command is often used with **grep** to filter the information, and then piped to **less** to give time to read it.

The command comes with enough options to satisfy even the most enthusiastic systems administrator, but us mortals can mostly get the results with just four.

- a** list all processes
- u** include the username of the owner of the process
- x** include processes that are not associated with a terminal
- f** display a tree like structure to show parent/child process relationships

A leading hyphen is not required with these options and should not be used, as it can change the

meaning of some options. The output is a series of fields displayed in columns, and what is output is dependent upon which options are used.

The first line of output contains the column headers, which describe what follows below. The interesting ones for us are:

USER process owners user name
PID process ID number
%CPU amount of processor time used
%MEM percentage of physical memory used by the process
VSZ virtual memory size in KB
TTY the terminal on which it is running, if any.

STAT process status which can be one of the following:

D in a deep, uninterruptable sleep
S sleeping or waiting
R running or in the queue to be run
T stopped
X dead, you should never see this as it should have been removed from the process queue
Z zombie - you should remove these

Additionally, you may also see alongside these codes one or more of the following:

N nice, low priority
< high priority
l multi-threaded
L locked pages in memory

s session leader
+ foreground process

COMMAND The name of the process

reset

Occasionally, you may find that your terminal gets corrupted. This is quite rare these days, but it can still happen, and you get nothing but garbage on screen. Just type **reset**, even if you can't see what you are typing, and things should soon be back to normal.

rm

This is one of the most basic file handling commands, and potentially one of the most destructive. It removes files, or rather it removes the directory entry for the file, although the data is still on the disk until over-written. You do not need write permissions on the file to remove it, only write permissions on the directory that contains it. When used with the **-r** option, it will remove files recursively for directories, which is obviously dangerous, and for that reason, most systems have an alias that reads **alias rm='rm -i'**. This makes the command interactively prompt for a y or n before removing the file.

script textfile

After typing this command, everything you do at the terminal is copied to the file 'textfile' (or whatever you called it).

This can be helpful if you need to show somebody how to do something at the terminal, and it has the added advantage that once you have it right, you can edit out all your failed attempts.

stat

Prints out information about a file gathered from the inode that holds the files metadata.

```
jane@daisy > ~ $ stat musicfiles
  File: 'musicfiles'
  Size: 5324          Blocks: 16          IO Block: 4096  regular file
Device: 386h/774d   Inode: 98559        Links: 1
Access: (0644/-rw-r--r--)  Uid: ( 501/   jane)   Gid: ( 500/   jane)
Access: 2010-06-13 12:54:17.000000000 -0500
Modify: 2009-12-06 05:14:10.000000000 -0600
Change: 2010-06-06 10:53:15.000000000 -0500
```

If you ever see the error message **"can't stat file *****"**, it usually means that the file doesn't exist (in the directory that you instructed the command to look for it).

tac

Where **cat** prints out files first line to last line, **tac** prints last line to first line, reversing the order. This behavior can be modified by changing the separator using option **-s**. The default is a newline.

tail

Tail is useful for displaying just the last few lines of a file. By default, 10 lines are shown, but this can be changed by passing the number of lines required as an option e.g. **tail -15 logfile**. See also **head**.

tee

Use this when you want the output from a command to go to more than one place. You might want to view the output of the command and to also save it to a file:

```
cat /etc/fstab | tee ~/myfstab
```

This would display the file on screen, and also write it to a file in my home directory.

Multiple destinations may be specified. The **-a** option appends the information to a file.

uname

You can display information about the machine and its operating system, and this information can help when troubleshooting.

```
jane@daisy > ~ $ uname -a
Linux daisy 2.6.26.8.tex3 #1 SMP Mon Jan 12 04:33:38 CST 2009 i686 AMD Athlon(tm)
) 64 X2 Dual Core Processor 4800+ GNU/Linux
```

The options are:

```
-a      all information
-m      system hardware
-n      network host name
-r      kernel release
-s      operating system
-p      processor type
-v      kernel build info.
```

uniq

This command finds duplicate lines in a sorted file. The lines must be next to one another, so the file must first be sorted.

This is usually done on the fly with the **sort** command.

Suppose that you had a file containing a list of objects, and you believed that some of them may be duplicated. Jane has a list of American states in no particular order.

To show only those states that are duplicated, you can use the **-d** option.

```
jane@daisy > ~ $ sort states | uniq -d
Arkansas
Kentucky
Minnesota
```

To find out how many times each duplicated entry appears, use the **-c** to add a count. This would be

useful to make an inventory if the list was a stock list.

```
jane@daisy > ~ $ sort states | uniq -cd
 3 Arkansas
 2 Kentucky
 2 Minnesota
```

To get the list that Jane wants, a sorted list with no duplicated entries, the output of the command with no options is sent to a new file.

```
jane@daisy > ~ $ sort states | uniq > states2
jane@daisy > ~ $ ls -l states*
-rw-r--r-- 1 jane jane 508 Jul 11 13:18 states
-rw-r--r-- 1 jane jane 472 Jul 11 13:22 states2
```

The file size shows that the duplicated entries have been removed.

wc

Use this command to count the number of characters, words or lines in a file, with the corresponding options **-c**, **-w** or **-l**.

```
jane@daisy > ~ $ wc -l /etc/passwd
32 /etc/passwd
jane@daisy > ~ $ wc -w /usr/share/dict/words
483523 /usr/share/dict/words
```

Of course, the input doesn't need to be a file. You can pipe the output from another command to count the number of results returned.

whatis

Have you wondered, "what does that command do?" This command may help by printing a one line description from the man pages.

If nothing is found, then it politely replies "Nothing appropriate."

whereis

This command will search for, and output, the full path to the executable file, the man pages and the source of any command.

The **-b**, **-m** and **-s** options will limit the search to the binary (executable), manual or source files only.

who

Although originally intended for multi-user systems to find out who was logged on, this command has a few useful options on a stand-alone system.

who -b will tell you the last time the system was booted

who -d gives a list of dead processes

who -r displays the current run level

Adding **-H** will add a row of column headings to the output.

You may also type **who am i**, which seems pretty pointless, and there is also a stand alone command called **whoami**. These return different results depending upon your situation. Consider this:

```
[jane@daisy ~]$ who am i
jane pts/2 2010-07-16 17:06
[jane@daisy ~]$ whoami
jane
[jane@daisy ~]$ su
Password:
[root@daisy jane]# who am i
jane pts/2 2010-07-16 17:06
[root@daisy jane]# whoami
root
```

Here, both commands return your usual user name when you are operating as a normal user. However, when you switch users with the **su** command, the **who am i** command tells you who you really are logged in as, and the **whoami** command tells you who you are being seen as when issuing commands.

This is particularly useful in scripts to check the user integrity before issuing a potentially disastrous command.

xargs

This is one that you really should have a good idea about. It allows you to pass as many arguments as you like to a command.

This can be difficult on a command line, but this command is a boon in scripts, and that is where it is often found.

With the **xargs** command, you can re-direct the output from a command as a series of arguments to another command.

```
find . -iname "c*.sh" | xargs lpr
```

This will print out the contents of all the files in the current directory that begin with **c** and end with **.sh** (shell scripts?) to your printer - even if there are thousands of them that couldn't possibly be listed on the command line.

In a shell script, you will rarely know how many results you will receive from a command, but this command will pass them all to your destination command sequence, and you may filter the stream to pass over only the results that you are interested in.

And the rest?

Well yes, there are many, many more commands at your disposal when you are using the command line interface to a Linux or Unix system. The few that I have described above are the ones that I find most useful, and all of them have a great deal more functionality than I have described here.

Linux has almost all of the commands readily available to do whatever you wish, and you can

create your own, personally tailored commands to perform the functions that you cannot readily find available.

You can then offer them to others who may find them useful. This is the way that Linux/Unix developed, and sharing and developing is the basis of the open source community, which has provided us with a superb, free operating system. ○



PCLinuxOS
Radically Simple

It's easier than $E=mc^2$
It's elemental
It's light years ahead
It's a wise choice
It's Radically Simple
It's ...

Screenshot Showcase



Posted by ef2000, July 28, 2010, running e17

ms_meme's Nook: Linux Time



OGG

*Linux Time and the bootin' is easy
Open Source and the safety is high
Oh Texstar is rich and PCLOS good lookin'
So hush little users don't you cry*



*One of these mornings you're gonna wake updatin'
Look to the panel see that auto notify
But 'till that morning there ain't a nothin' to alarm you
Your friends in the forum gonna be standin' by*



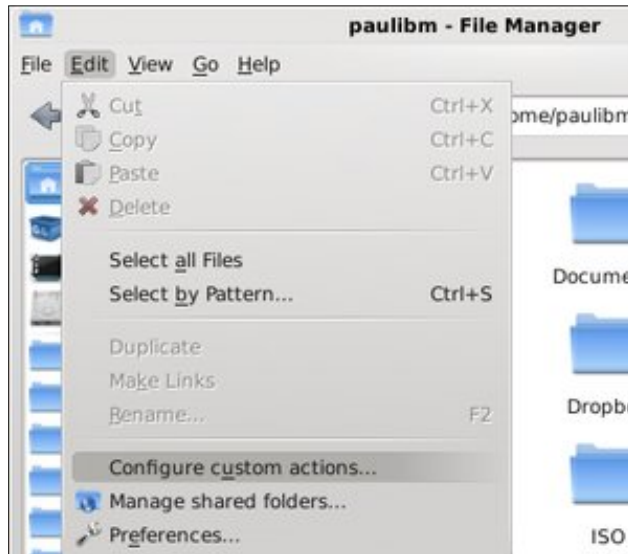
MP3

Xfce 4.6.2: Customize Thunar's Context Menu

by Paul Arnote (parnote)

Many users of KDE and Gnome are accustomed to the rich context menus of the Dolphin, Konqueror, and Nautilus file managers. Xfce users aren't left out in the cold, however. Customizing the context (right click) menu of Thunar is actually quite easy, and can be nearly as "full featured" as those of the file managers for the bigger desktop environments.

Step One



Once you have Thunar open, select "Configure custom actions..." from the Edit menu.



You will then see the dialog box pictured above. Click on the green "+" button to add a new custom action.

Step Two

Once you've selected to add a custom action, you will then see the "Create Action" dialog box displayed on your screen. Under the "Basic" tab, there are four things for you to select or fill in. The first, the "Name" field, is the name that will be displayed on the context menu. The "Description" field holds the description of the context menu item, and is displayed if you hover your mouse over that menu item. The third field, "Command," is the command to execute when the menu action is selected. We'll talk more in-depth about the command field a bit later on. The last selection you have to make is whether or not to display an icon next to the context menu item. If you don't want an



icon displayed, simply do nothing. If you want an icon displayed, click on the "No Icon" button, and select an icon from the icon selection window that opens up.

Notice at the bottom half of the window there are directions about command parameters. For the sake of clarity, here are the choices:

- %f** The path to the first selected file
- %F** The paths to all selected files
- %d** Directory containing the file that is passed in %f
- %D** Directories containing the files that are passed in %F
- %n** the first selected filename (without path)
- %N** the selected filenames (without paths)

- %D Directories containing the files that are passed in %F
- %n The first selected filename (without path)
- %N The selected filenames (without paths)

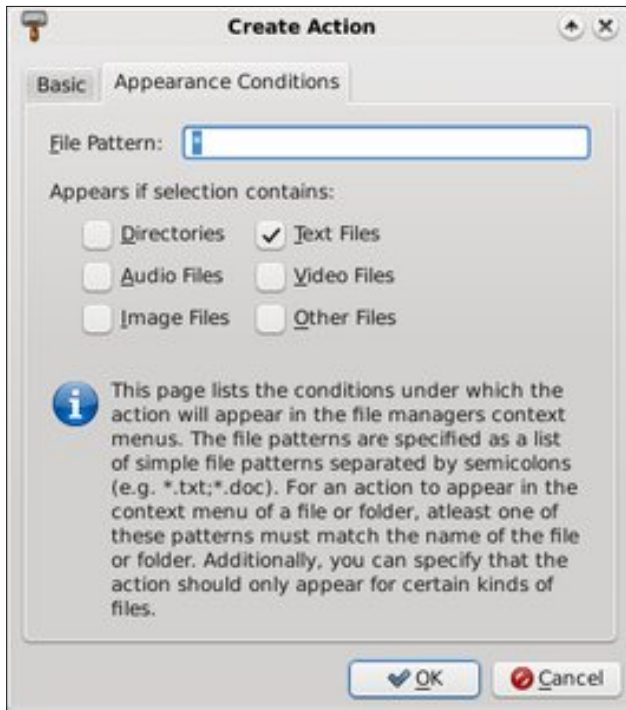
that are displayed for all files and file types, as the Thunar context menu will become quite large. For me, I've found it much better to somewhat limit the conditions under which the new context menu item is displayed. We'll talk more in-depth about this a little later.

We've also entered the action to take when the menu item is selected, under the "Command" field. Here, we've entered the following:

```
convert %F `basename %F .jpg` .png
```

Please note that the command uses backticks, not the single quote character. The command converts multiple files (%F), using the "convert" command from ImageMagick, then uses the "basename" command to strip the .jpg file extension, and then add the .png file extension to the converted file.

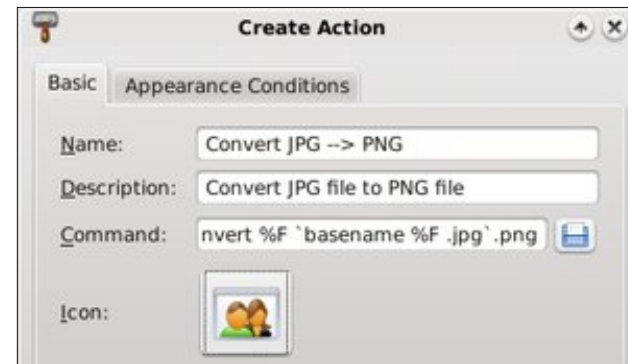
I've elected to display an icon in the context menu, so I clicked on the "No Icon" button and chose an icon to display next to the context menu entry.



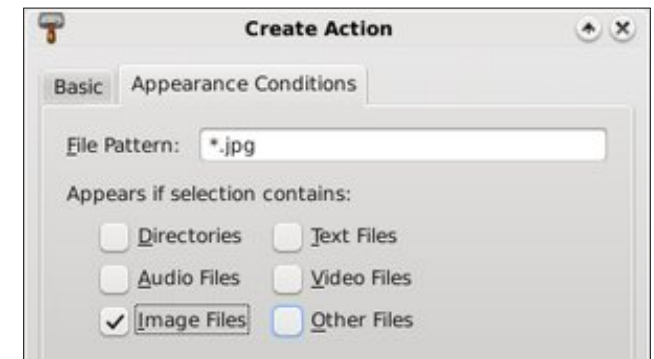
Under the second tab, "Appearance Conditions," you can select under which conditions the context menu is displayed. You can make the context menu displayed for all files and file types, or you can narrow it down to very specific conditions. The choice is yours. Be careful adding too many items

Step Three

Let's take this opportunity to actually add in a useful context menu item. For our exercise, we're going to add a context menu item that converts a JPG file into a PNG file, using the command line tools of ImageMagick.

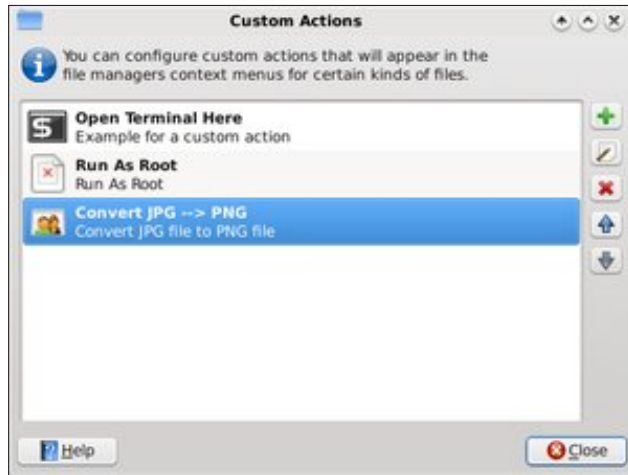


Under the "Name" field of the "Basic" tab in the "Create Action" dialog box, we're going to call our new menu item "Convert JPG --> PNG." The "Description" field contains a more general description that is displayed when the user hovers their mouse over the top of the menu item. Here, we've entered the description as "Convert JPG file to PNG file."



Under the "Appearance Conditions" tab, I've elected to display the context menu only when jpg files are highlighted, and only for image type of files. This way, if I highlight a .txt or .tar.gz file, the context menu isn't littering up Thunar's context menu. This is especially useful, since the command would have no effect upon those types of files anyway.

Here is what it looks like in the "Configure Custom Action" dialog box after you've finished defining the custom action:



You can also edit a custom action by clicking on the icon with the pencil on it. Similarly, you can remove a custom action menu item by clicking on the red "X" button. The blue up and down buttons allow you to move the custom action menu item up or down in the list of menu items.

Advanced Topics

We can't just let the discussion stop here. There are other things to consider, when it comes to the "Command" field under the "Basic" tab of the "Create Action" dialog box, and when it comes to specifying the "File Pattern" field under the "Appearance Conditions" tab.

First, let me preface the discussion that follows with this: this is not going to be a full discussion or tutorial of the ImageMagick convert command. Entire books have been written on how to use ImageMagick and all of its tools. Just covering the convert command alone would take much more time and space than we have here. If you haven't yet explored and unleashed the power of ImageMagick, you may want to check out the [ImageMagick command line tools](#) page, or the [ImageMagick Examples](#) page. ImageMagick provides some very powerful tools for dealing with graphic files, and there is literally nothing that equals or comes close for dealing with graphic files from the command line.

We can keep the command very, very simple. The command

```
convert %F %F.png
```

will process the conversion, and simply append the .png file extension on the end of the full file name. So, if your input file is tiddlywinks.jpg, the output file will be named tiddlywinks.jpg.png. This isn't too much of a problem when you're dealing with only a few images, since you can easily manually rename the files. It becomes troublesome when you are converting a large number of images, and will require an additional step (or two) to rename the files.

The "File Pattern" field in the "Appearance Conditions" tab is case sensitive. So, if you want the context menu to appear for all JPG files, regardless of the case of the letters, you could place the following in the "File Pattern" field:

```
*.jpg;*.JPG;*.jpeg;*.JPEG
```

This will cause the context menu to display for any of the four combinations of file extensions, and only files ending with those file extensions. But there is a *small* problem: files with extensions not **exactly** matching the exact spelling and case of the file extension specified in the "Command" field of the "Basic" tab will simply have the .png file extension tacked onto the end of the existing file name and extension, as in the previous example using the very, very simple command.

If you want more precise control, where the file extension is properly stripped off and the .png file extension is appended, you could create a custom action for each of the four file extensions above: jpg, JPG, jpeg and JPEG. You would also have to alter the "basename" command to strip the respective file extension, in the "Command" field on the "Basic" tab.

Here are some other image manipulation commands, courtesy of ImageMagick, that you may be interested in turning into custom actions for Thunar's context menu. **Use caution with the following commands, because they will overwrite the original image file, and your original image WILL be LOST!** These commands are best used on a COPY of the original file.

To rotate an image (or group of images) 90 degrees: **convert %F -rotate 90 %F**

To alter the compression level of an image to 50% quality: **convert %F -quality 50% %F**

To resize an image to a width of 450 pixels:
convert %F -resize 450 %F

To resize a JPG image to a width of 450 pixels, convert it to PNG, strip the existing file extension, and rename the file to let the user know that the file has been resized to 450 pixels wide:

convert %F -resize 450 `basename %F .jpg` -resize450.png

(By the way, don't worry about having to specify both the width and the height of an image; ImageMagick will automatically preserve the aspect ratio if you specify only the width).

Conclusion

Of course, you can do more than just deal with image files from Thunar's context menu. You can specify commands that run scripts, compress files, play multimedia files, etc. You can do pretty much whatever you can imagine from Thunar's context menu, provided you can supply the proper command or commands. I'll leave you to explore the endless possibilities of custom actions you can set up.

If you are interested, you can read more about setting up custom actions for Thunar's context menu, at [Thunar's web site](#). Let your imagination run wild. ○

Screenshot Showcase

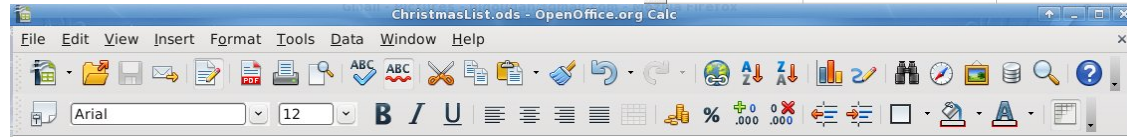


Posted by coffeetime, July 05, 2010, running OpenBox

OpenOffice 3.2: Calc

by Meemaw

We have looked at OpenOffice Writer, covering some of the basics of the program and what was included. This month we'll look at some of the basics of OpenOffice Calc, which is the spreadsheet program in the OpenOffice suite. When you open it, you will have an empty spreadsheet grid for whatever data you want to organize. This will be a very basic review, because there are many things that Calc can do that I've never used.



The toolbars are almost identical to those found in OO Writer: however, some of the individual buttons are different. The main toolbar has all the standard features, like cut & paste, save, open, new, print, etc. The formatting toolbar is different in places. Instead of the numbering and bullet buttons that are used in Writer, you will have buttons for changing cell contents - you can highlight cells and format them as currency, add or subtract a decimal place from your numbers or put borders around specific cells. Instead of editing text, you can choose a filler color for the cells you have highlighted. Also, two sorting buttons are in the top row to sort your data alphabetically, or reverse. You can also display a graph to go with your data if appropriate.

Spreadsheets can be used for quite a few projects! In addition to keeping track of monetary amounts for each month of the year (only one use), you can build forms (like invoices or statements), make address

lists (you can do this in a database program, but if you only need name, address, city & state, a spreadsheet is just as easy, if not easier.) I use spreadsheets to do address labels quite often.

	A	B	C	D	E
1					
2	Name	Address	City	State	Zip Code
3	Jane	123 Main St	Somewhere	KS	66777
4	David	321 Lincoln St	Somewhere Else	IL	60000
5					
6					
7					
8					
9					
10					
11					

In my job, I have to submit a list of upcoming bills to my bosses, so they know where the money is being spent each month. I use a spreadsheet because you can set it to add a column of figures. That way, they know the total, and I don't have to run the adding machine three times to make sure I didn't add wrong!!! In the example I did a quick home budget list that is similar.

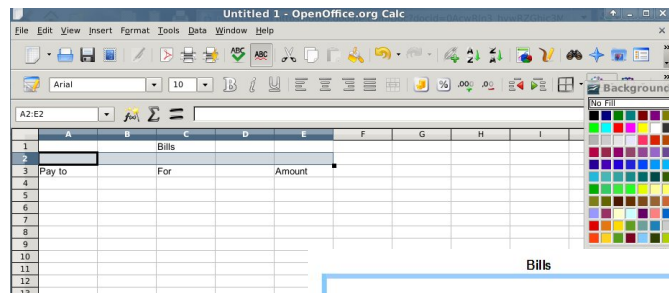
	A	B	C	D	E
1			My Budget		
2					
3	Who	What For			How Much
4	Landlord	Rent		\$	600.00
5	Utility Company	Electricity			200.00
6	Water Company	Water			20.00
7	Gas Company	Natural Gas			100.00
8	Bank	House Payment			500.00
9	Credit Card	Fuel, Groceries			750.00
10					
11					
12					
13					
14					
15					

In the next shot I highlighted the numbers in the money column, starting with the cell where the sum should be displayed and dragging my mouse up. Then up above the spreadsheet (but below the toolbars) in the formula bar, click on the symbol (Σ). Your sum should appear in the bottom cell.

	A	B	C	D	E
1			My Budget		
2					
3	Who	What For			How Much
4	Landlord	Rent		\$	600.00
5	Utility Company	Electricity			200.00
6	Water Company	Water			20.00
7	Gas Company	Natural Gas			100.00
8	Bank	House Payment			500.00
9	Credit Card	Fuel, Groceries			750.00
10					
11					
12					2,170.00
13					
14					
15					

The formula bar has the characters that are in the cell you have selected. If you have numbers or text in the cell, the formula bar will show what is there. If you are doing a spreadsheet with mathematical calculations in it (like the number sum above), it will show the formula for getting that answer. In the example above, the formula is =SUM(E4:E11) which means that the numbers in cells E4 through E11 will be added together and the answer displayed in E12 (which is the cell where the formula is located.) In a budget, for example, we could add our income and bills separately, then put a formula in a third cell which would stand for the difference between incoming and outgoing cash to let us know our month-end balance. The Insert > Function menu has a list of formulas you can use. You can also get the same list from the fn button to the left of the formula bar.

You can make your document a little prettier, if you wish, by putting colored backgrounds in some of the cells. I highlighted 5 cells, then clicked on the background color button on the toolbar, and chose a light blue. I also made the row height smaller, so that my cells would look like a colored border. Click on Format > Rows > Row Height (or Format > Column > Column Width) to change the size of the row or column - or if your hands are very steady, you can 'grab' the row border at the bottom of the box with the row number in it, or the column border at the right of the letter and drag it to suit you. You can get close, but if you want several of them the same width or height, you're more accurate highlighting the ones you want to change and using the format menu.

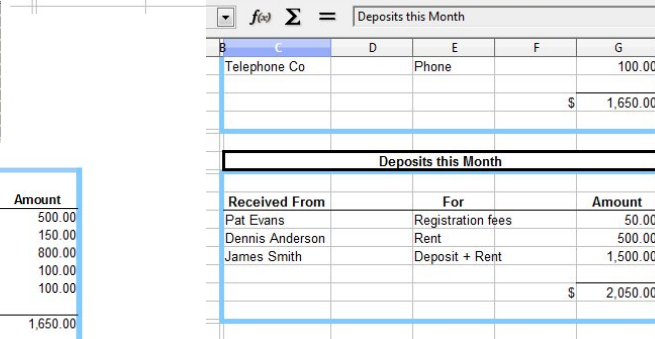
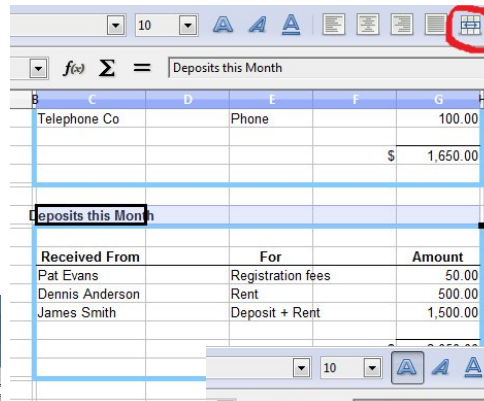


You can go through and color cells and put your information in until you have it the way you want it. You can always click the 'Print Preview' button to see what it looks like (and with a little more than 15 minutes work, I'm sure you can make one that's awesome!)

Pay to	For	Amount
Landlord	Rent	500.00
Utility Co	Gas, Electric, Water	150.00
Joe Evans	Wages	800.00
Jane Jones	Clean Office	100.00
Telephone Co	Phone	100.00
		\$ 1,650.00

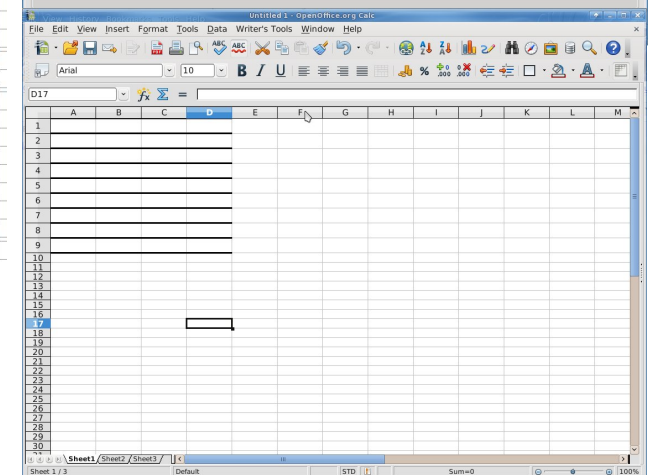
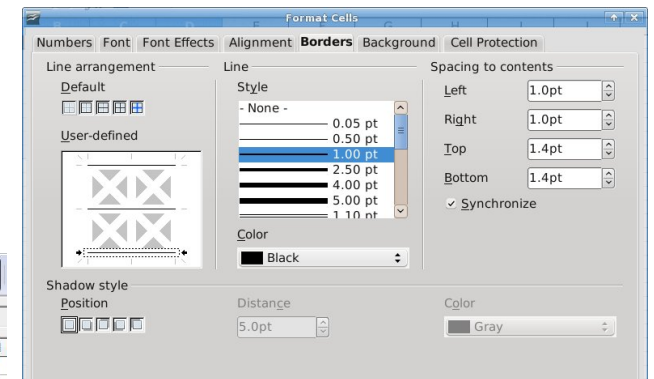
Deposits this Month		
Received From	For	Amount
Pat Evans	Registration fees	50.00
Dennis Anderson	Rent	500.00
James Smith	Deposit + Rent	1,500.00
		\$ 2,050.00

Another thing you can do that might make your spreadsheet look a little better is to merge cells. Sometimes I'm doing a sheet that needs a title, and I want the title centered. If the title is in the spreadsheet itself, I highlight the number of cells that equal the width of the sheet, then click the 'Merge Cells' button.



If you haven't clicked on the 'Center Text' button, do that as well. In some of the spreadsheets I do, the columns are different widths, so merging the cells and centering the text gets it centered the way I want it.

You can format the cells to add lines in specific places (like underneath the headings in each section or at the bottom of a column of numbers being added) or have your numbers show in a particular format. Just highlight the desired cells and click Format > Cells and you'll get a formatting box; use the arrangement section at left to designate the locations of the lines and the style box to make the line the correct thickness. I actually changed mine to 2.50 pt.



If you only have a few places you want the borders to go, you can highlight the cells and use the Borders button on the toolbar (in my example, the borders button is in the bottom row of tools to the left of the background color button.) You will get a drop-down with several choices.

In the same formatting box, the tabs across the top include 'Number'; this is where you can format numbers to look the way you want them. In a financial worksheet, I like them all to have two decimal points and a comma for the thousands place. I format them as numbers rather than currency. Why? Because when you format them as currency, each number includes the currency label you choose, and I only want my dollar signs at the top and bottom of each series, not on every amount. Therefore, I use an extra column to the left of my numbers so I can put the dollar signs where I want them.

Now, if you've gone to print your spreadsheet, and it says 'Sheet 1' at the top.... and you don't know who put it there.... you should go to Format > Page and choose the 'Header' tab. There is a button that says 'Edit' - click that one and you will see a chart showing items displayed in the header of your document. The center section has 'Sheet 1'. You can delete that text, or you can cancel out of that, go back to the header tab and uncheck the 'Header On' box. Conveniently, there's more than one way to do something.

Just like in Writer, OpenOffice.org has loads of templates for use in Calc. You can find templates for graph paper, budget sheets, amortization schedules, grocery lists and even a Sudoku game!
<http://extensions.services.openoffice.org/project/> .

There are exterior sites that have templates as well. If you are looking for a specific template, you can go to one of these sites:

<http://www.vertex42.com/>

<http://www.spreadsheet123.com/>

<http://www.sysmod.com/free-software.htm>

I've found loan payment schedules, budget sheets, the Sudoku game and even graph paper!!! Many of them say Excel, but we know we can open them anyway.

Calc will do much more than what is covered here!!! I hope you'll take some time to explore. Next time we'll look at Impress. ○

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You can write articles, help edit articles, serve as a "technical advisor" to insure articles are correct, create artwork, or help with the magazine's layout.

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Testimonial: PCLinuxOS: an Accidental Discovery

by Peter Benecz (sixthwheel)

I've been using some form of Linux distro for the past few months now with a few problems, and just stumbled upon PCLinuxOS by accident. A happy accident, if I say so myself.

The problems I had were really minor, compared to the problems with Windows, which I've been using since Win95. So I was really happy to discover Linux in general. However, I could not find one distro that worked with everything that I needed. The one distro that came close was Ubuntu 9.10 (Karmic). Then I upgraded to 10.04 (Lucid Lynx), and I couldn't get my Skype webcam working, after much searching.

Then I tried Mint, which was great. Except that after coming out of hibernation, I would have to reboot



because the system froze. While searching for a solution, I came upon a thread in the Mint forums. Someone mentioned that a rolling release OS had

less bugs and problems. So I did a search for Linux rolling releases. I read through most of the reviews, and PCLinuxOS caught my eye.

It looked like everything a new Linux user could want. I downloaded the Gnome version, (that's what I'm used to), and played with the live CD for a while. Then, I installed it next to Mint, and I screwed up the partitioning and deleted Mint. (Yes I should have used Gparted to prep it for a dual boot install). No biggie, since I have everything important backed up to an external drive. (I learned to do that a long time ago, re installing Windows a million and one times).

So far I'm really happy with it, and would like to thank the developers for a great job. I also downloaded the KDE 4 package, and have been playing with that for a while. Everything looks and works very well, and I think my search for a distro that works for me is finally over. I really like the idea of a rolling distro, instead of a new release every 6 months, whether it's buggy or not. (I never really understood that philosophy to tell you the truth). However I digress, since this is not a post to bash other distro's or Windows.

I'm just real happy with it, and hope to be using it for a long time to come. Thank you. ○

PCLinuxOnline

PCLinuxOS News and Information



Visit Us On IRC

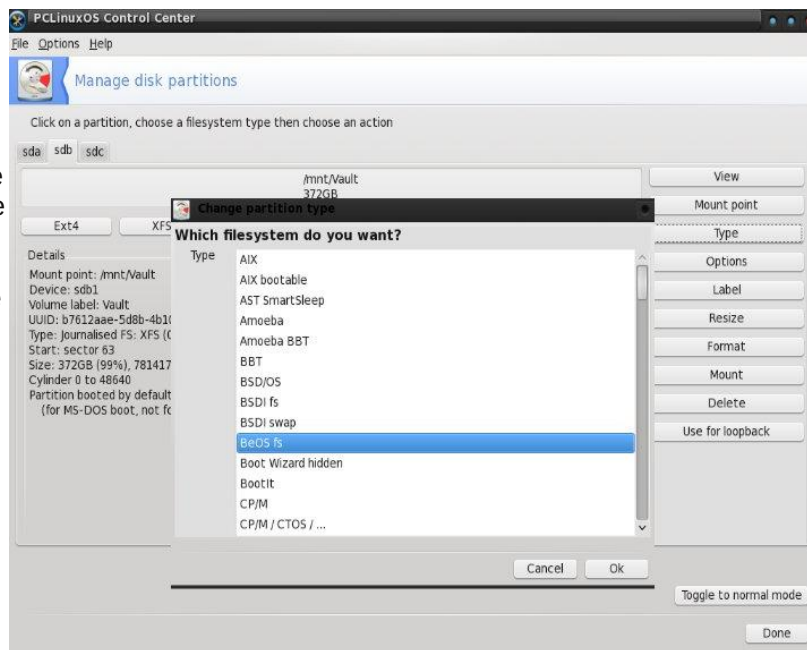
- Launch your favorite IRC Chat Client software (xchat, pidgin, kopete, etc.)
- Go to freenode.net
- Type "/join #pclinuxos-mag" (without the quotes)

Alternate OS: Haiku, Part 2

by Darrel Johnston (djohnston)

Before beginning a summary of Haiku's applications, I'd be remiss if I didn't say a little more about the BeFS (BeOS filesystem), not to be confused with BFS, the UNIXWare filesystem. Although written in the late 1990s, it has some advanced capabilities. It is a journaling, multi-threaded, 64-bit filesystem, optimized for streaming file access, and containing database-like extended file attributes. Using it, you can create disk partitions in excess of 8 exabytes, (that's 8,000 terabytes), and create files that are larger than 30 gigabytes in size. One of BeFS's most important and widely touted features is its support for extended attributes. If you want to associate information with MP3 files using a conventional file system, you might have to create your own database to support searching, creating, updating, or deleting these attributes as your music collection grows and changes. With BeFS, the attributes can be added to the file system itself. This means that a program for editing or playing MP3s does not need to create or maintain a database, because the file system will handle these functions for you. BeFS supports associating attributes within a file, and attributes can be searched and sorted by the file system, as an extension of any application. For a much more detailed analysis, see this article, written by Andrew Hudson. <http://arstechnica.com/open-source/news/2010/06/the-beos-filesystem.ars>

A BeFS partition can be created with PCLinuxOS's own partitioning tool, and with GPartEd, as well as other disk partitioning programs.



There are a few general purpose and some special purpose applications included in the Haiku R1Alpha2 installation. They are:

Name	Description
Activity Monitor	CPU & memory usage viewer
BePDF	Views PDF files
CDPlayer	Plays audio CDs
Character Map	Font viewer
Clockwerk	Multi-track audio/video compositing & animation
CodyCam	Webcam monitor and recorder
DeskCalc	A basic calculator

Devices
DiskProbe
DiskUsage

DriveSetup

Expander
Icon-O-Matic

Installer

Magnify

Mail

MediaConverter

MediaPlayer

MidiPlayer

PackageInstaller

Pe

People

Poor Man

Screenshot

SoundRecorder

StyledEdit

Terminal

TV

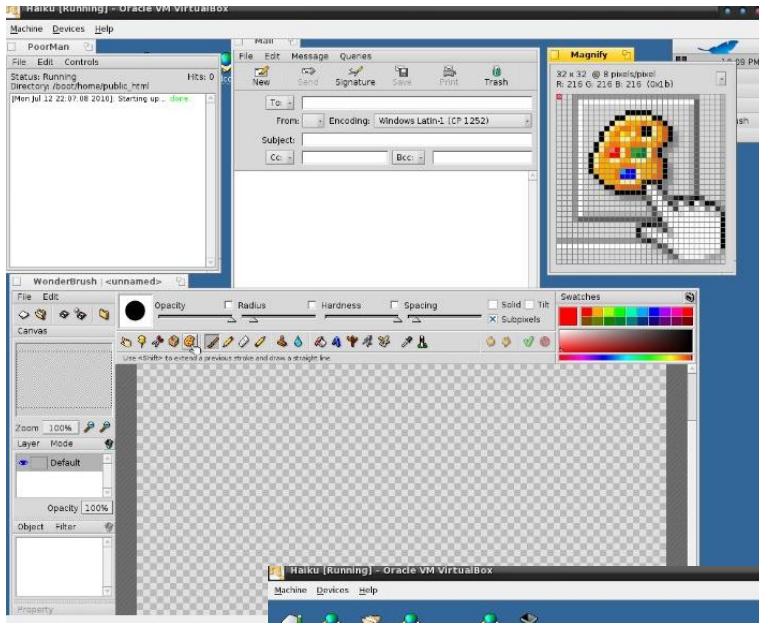
Vision

WebPositive

WonderBrush

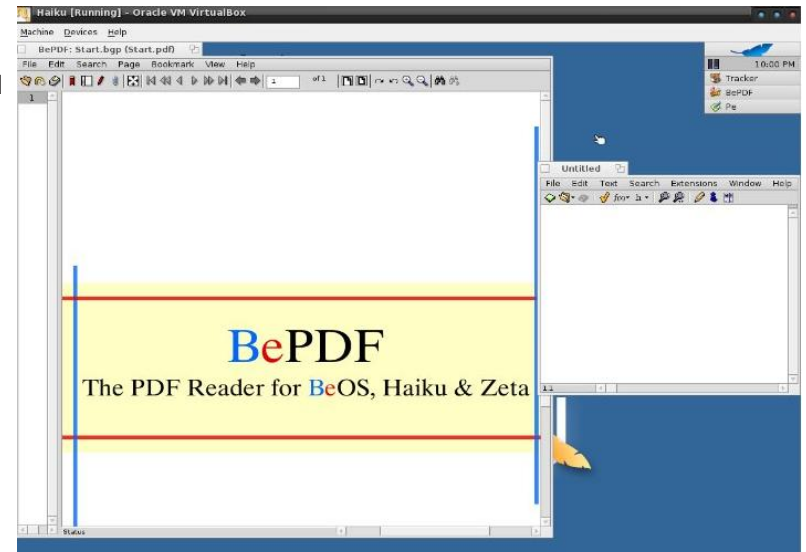
Most daily tasks, such as web browsing, text editing, and playing of audio and video files can be done with the included programs. Not all multimedia formats can be played, however. For example, the included web browser does not play flash videos.

Device viewer
Disk and file hex editor
Shows your disk usage graphically
Disk partitioner and formatter
Zip file manager
Graphic to icon converter
Install HaikuOS
Screen magnifier
POP/IMAP mail client
Audio/video file converter
Audio/video file player
Plays MIDI files (doesn't currently work)
Installs .pkg files (runs from Terminal)
The favorite code editor of Haiku developers
Contact manager
Simple web server
Screen capture utility
Records audio
Basic word processor
Command line window with BASH
Interface to TV viewing cards
IRC client
Web browser
Image editor

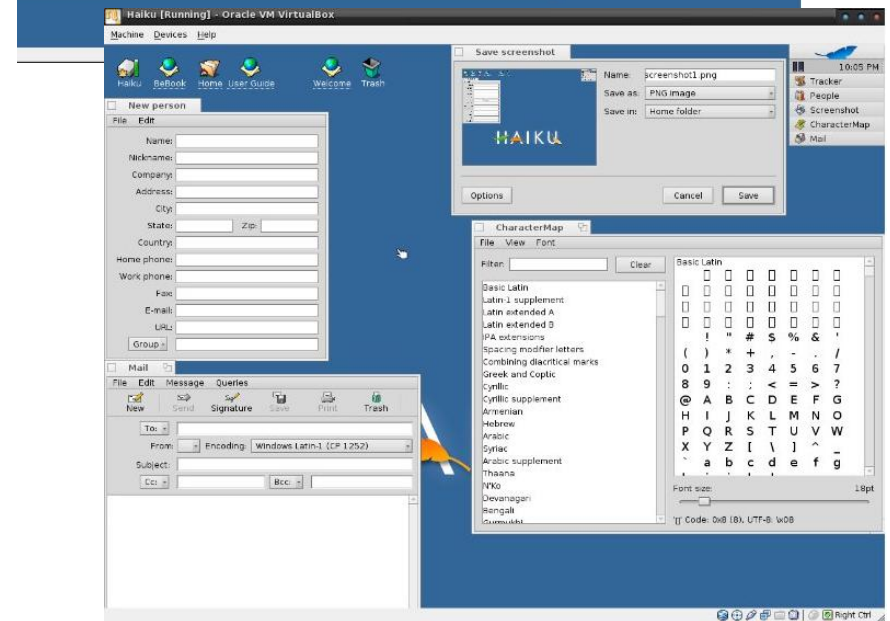
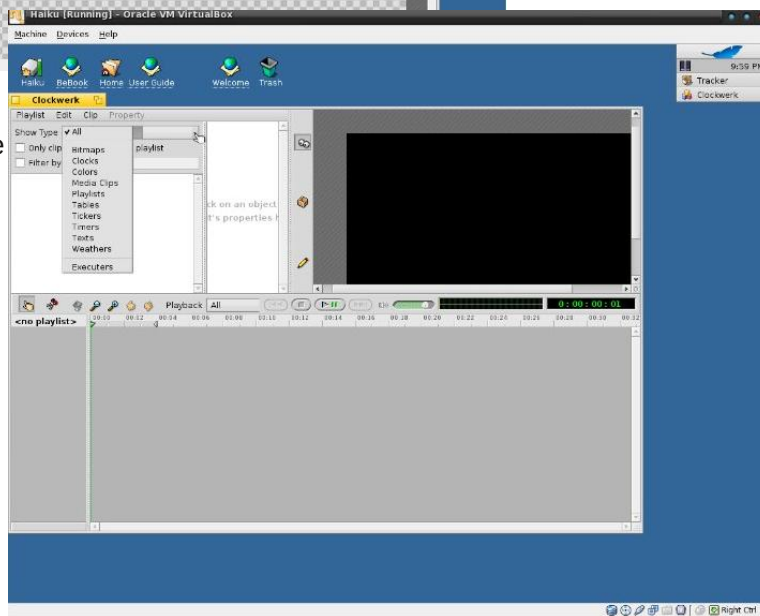


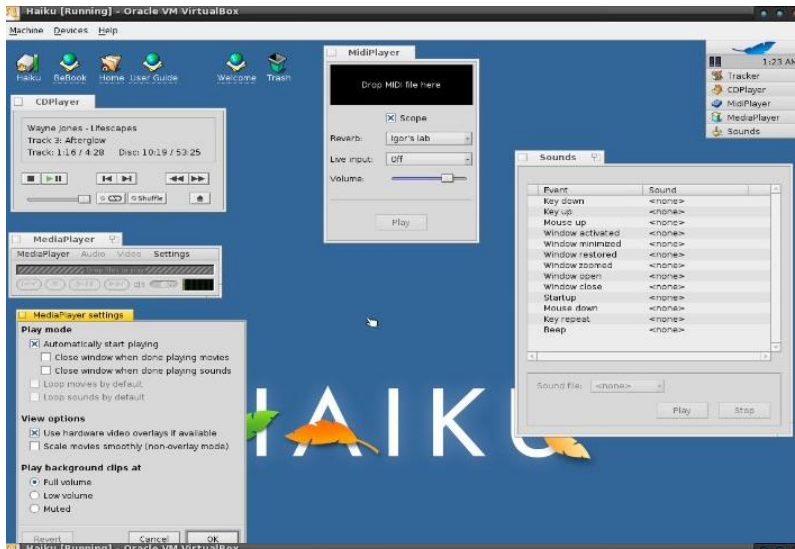
The web browser has the following sites bookmarked under the Software folder:

- <http://ports.haiku-files.org>
- <http://haikuware.com> **
- <http://dev.osdrawer.net>
- <http://zeta-games.com>



The developers are aware of the shortage of applications and the limited abilities of some of the applications. For this reason, they've been scouring the web for older BeOS applications, and asking for new submissions.





Haikuware was chosen as the central repository because it has 2640+ applications to download. It also has a rating system, user forums, a built in email system, and a way to leave comments for each application. To install an application on Haiku:


- 1) Open your WebPositive web browser from the Applications menu
- 2) Go to Haikuware.com
- 3) Download the application you want by clicking on Download
- 4) Launch the Expander by clicking on the Open button after download completes
- 5) Change the install path from /boot/home/Desktop to /boot/apps
- 6) Click Expand

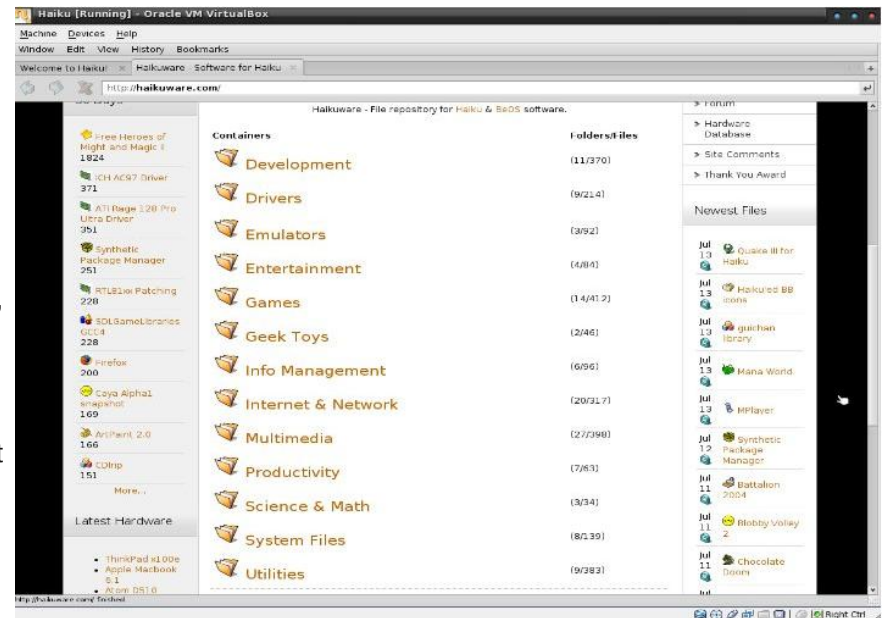
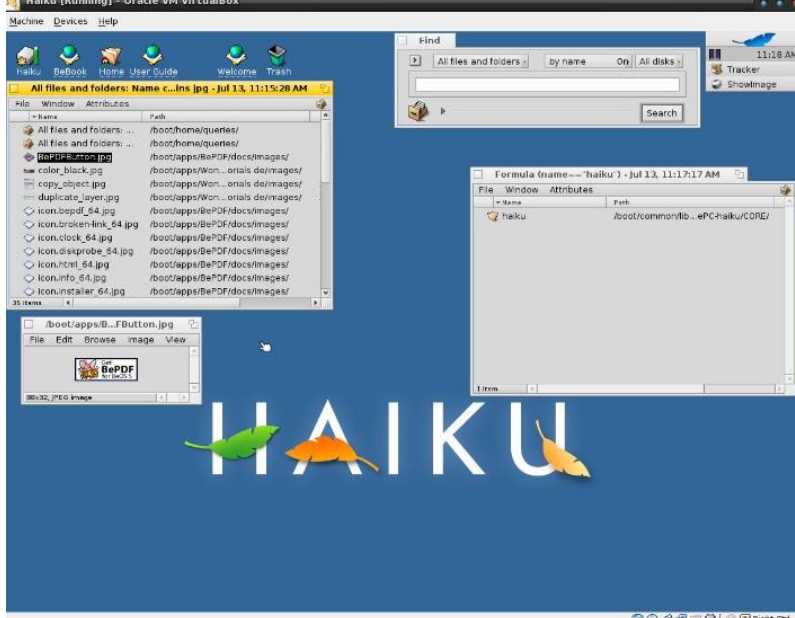
To run your new application:

- 1) Right click on your file system icon (upper left corner of desktop)
- 2) Select the apps folder, then your application's folder.

Some applications have an additional setup script or setup instructions. Look for a README file. If the application is downloaded as a .pkg file, open Terminal from

the Applications menu and run PackageInstaller from the command line. Use the PackageInstaller to complete the installation. Some applications or libraries can be installed using the installoptionalpackage utility. Open Terminal and type installoptionalpackage -l to list packages or libraries that are available to install or update.

The Be operating system was touted as a highly capable and efficient multimedia system. Haiku is beginning to live up to that promise. It has a vastly improved networking structure. And the BeFS has at least one capability, metadata storage in the filesystem, that others cannot yet match. The only drawback, if it can be considered as such, is that the system only allows for one user. Whether this will ever be addressed is unknown. 



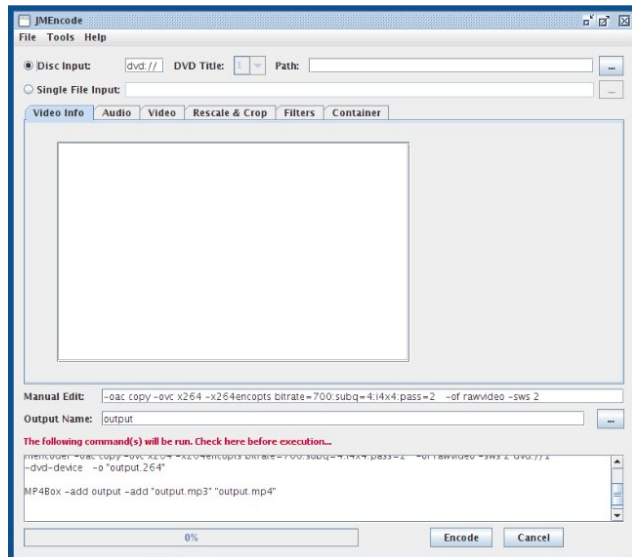
Video Encoding: Step-by-Step

by Daniel Meiß-Wilhelm (Leiche)

For a few years, under Windows, I had created video CDs and DVDs with TMPGEnc, or HC-Encoder. Both are very popular video transcoding programs. HC-Encoder needed avisynth, a frame server, but that is another story. Instead, using the matrix from molevcd produces very good quality.

Under PCLinuxOS, I installed avidemux, then Handbrake. Handbrake does the job very quickly, it's easy to handle, and it produces good quality output. But the bad thing is that the developers of Handbrake removed the avi container, and my store-bought media player now only plays avi, mpeg or wmv files. What's new?

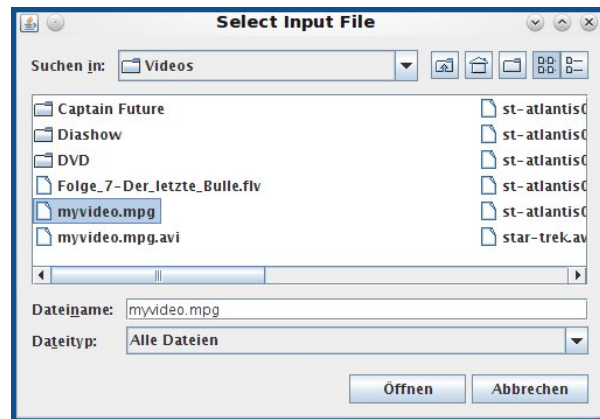
I searched and searched, added some apps from the repositories of PCLinuxOS, but nothing else is



as fast as encoding with Handbrake. DivX Converter is a frontend for mencoder, but my test file took 12 hours to process, and the quality was not what I expected.

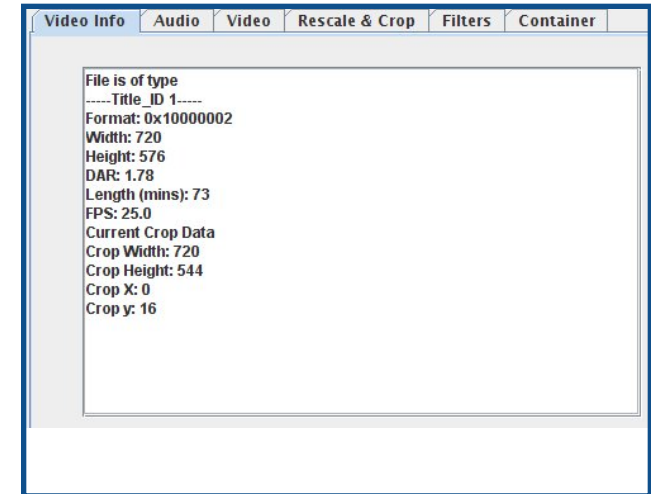
Mencoder, as a command line program, is not quite so handy for me. The output is perfect, no doubt about it, but I need a GUI or frontend for mencoder. I finally found jMEncode, a frontend for mencoder.

To open a file, click on Single File Input, and the button with the ellipsis, to the right of the "Path" text input box. Then open the file browser and go to the folder where your video is.



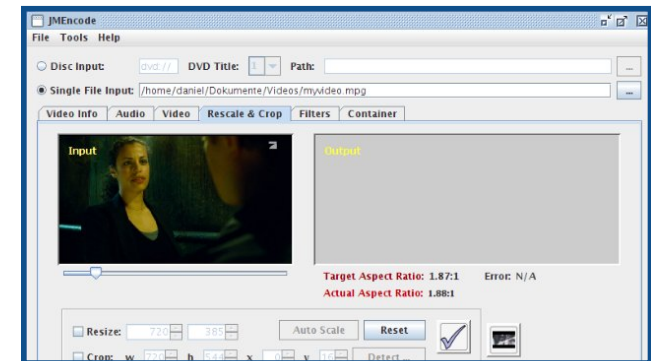
To open the video file click on Öffnen (Open) and jMEncode analyzes the file. You can see the details in the main window.

When we want to create an avi file, we can skip the **Audio** window because mp3 output has already been selected.



Next go to the **Video** window and set the codec and other things. Usually, 1-pass encoding works well for me, and the quality for my old TV is perfect. The container is avi, and for CC, I chose XVID. If I forget that, my media store player won't play my video. I set the input DAR (aspect ratio) on 16:9, and other options I left at their default settings.

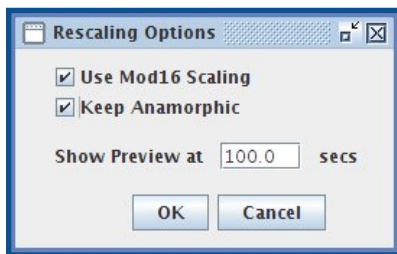
The next window is **Rescale & Crop**.



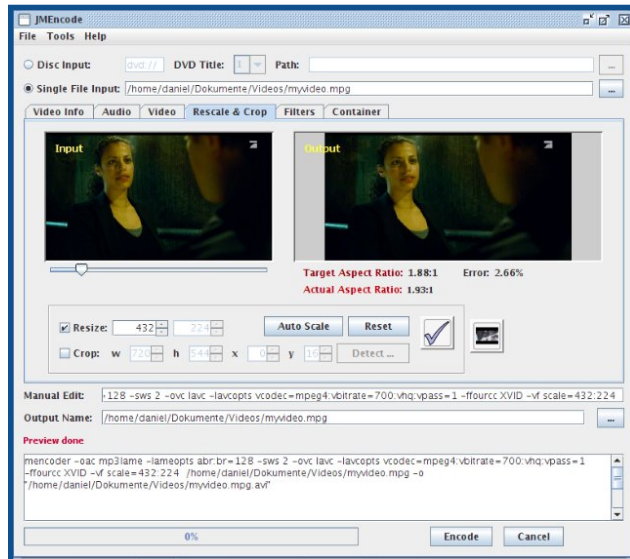
With the slide control under the picture, you can search a perfect picture for cropping or rescaling.



Click on **Keep Anamorphic**, when you want 16:9. I didn't click it in the following screen shot, since it was already preselected for me.



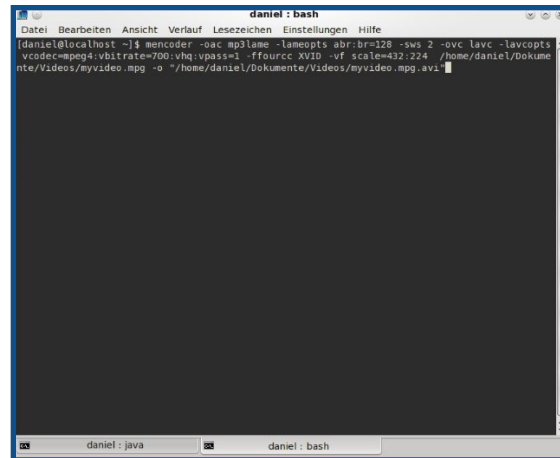
Now click on the hook button, and you see the output.



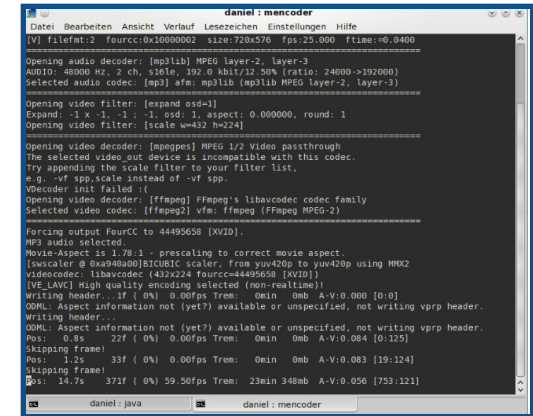
After rescaling my video to 432x224, the picture seems correct to me.

All settings are complete. Now we should click on the encode button, but this button doesn't work at this time. I have contacted the developers and hope it will be corrected in a new version. You can copy the generated command from the main window with "ctrl+a" + "ctrl+c", then paste it in a console. The generated mencoder command is as follows:

```
mencoder -oac mp3lame -lameopts abr:br=128 -sws 2
-ovc lavc -lavcopts
vcodec=mpeg4:vbitrate=700:vhq:vpass=1 -ffourcc
XVID -vf scale=432:224
/home/daniel/Dokumente/Videos/myvideo.mpg -o
"/home/daniel/Dokumente/Videos/myvideo.mpg.avi"
```



and press **Enter**.



You can play the output file with any player, if you want.



Mencoder does what I need, and works perfectly for me. The encode button in jMEncoder doesn't work, but hey, working in console is really fast.

Good luck with jMEncoder. ○

Screenshot Showcase



Posted by exploder, July 28, 2010, running KDE4

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Computer Languages A to Z: Modula2

by Gary L. Ratliff, Sr. (eronstuc)

Introduction to Modula 2

Modula2 was invented by Niklaus Wirth, who was the inventor of the language Pascal. In addition to this language, he also invented Oberon2, which is an object orientated version of Modula2. Once Pascal was introduced to the computing world, it was readily adapted as a teaching language. Soon, there were many variations on the language which Wirth took to indicate short comings in the language. This prompted him to develop a language named Modula in 1975, and from this, to later develop Modula 2 in 1979.

The most distinguishing feature of Modula 2 is that programs may be developed and compiled in separate modules. The language was introduced with a set of features of the language, and also a set of modules which were not regarded as parts of the language, but which were regarded as desirable by Wirth to use the language.

As with Pascal, soon various implementations were developing their own sets of these modules. This action led to an effort to standardize the language and make certain modules have required names and

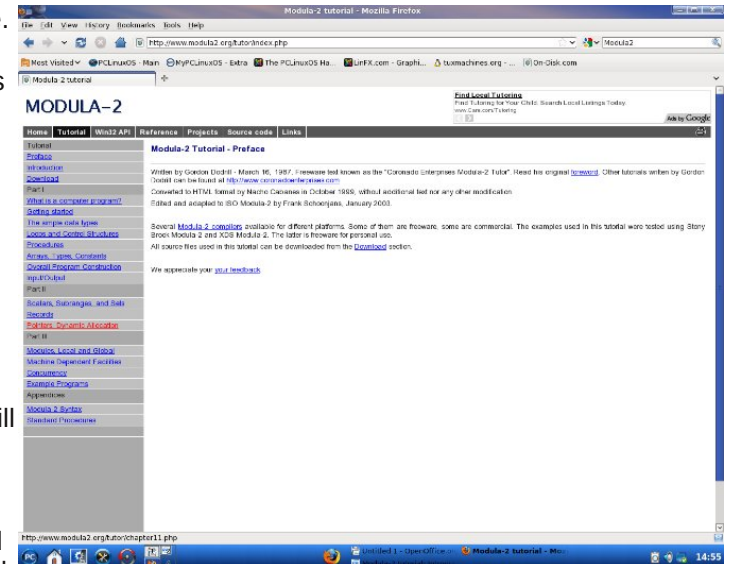
items in the procedures supported by the module. This results in a programming style which allows the features with either the Wirth named modules or the names as required by the ISO standard.

Learning the Modula 2 Language

We now need to locate a tutorial which will introduce us to the Modula 2 language. The easiest method is to enter the words Modula 2 into the Google search engine. From the items shown, select the item Modula Home, and you will receive the following page:



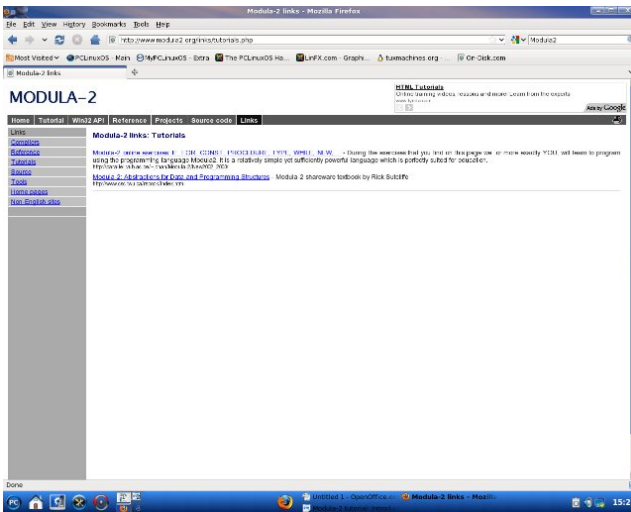
To reach it, just click of the line in the above page named "Modula-2 Tutorial," and this will bring up the following page:



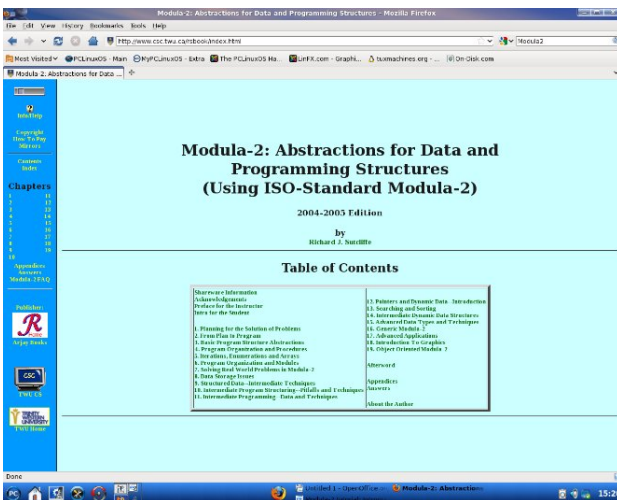
Here we find that a tutorial for novice users is most likely to be one which we may use to learn the features of the language. As this tutorial also assumes that the reader is new to computers, it serves as an introduction to the entire field.

First, the best approach would be to just start with the preface and introduction. This will let you know that Part I of the tutorial is required reading before you begin to peruse either Part II or Part III. On reading this tutorial, you learn that some of the most important information only has the text: "Under development." That first appears in the section named Input/Output.

Second, it is for this reason that I suggest that you also use the tutorial by Rick Sutcliffe. This tutorial is very complete. It also offers many complete programming examples. To find this tutorial, you will click the LINKS item in the above page. This will produce the next page:



Once on this page, you will reach the tutorial by clicking the item: “Modula 2: Abstractions for Data and Programming Structure.” This will produce the following page:



This is a text book in 19 chapters. Each of the chapters will have several sections, which will be navigated by clicking the link to each section which will be found in the upper right portion of the page.

Note that each chapter will have a quiz, and that answers to the material are provided. With these two tutorials, one should have little problems in learning to use the Modula 2 language.

A Compiler for Modula 2

It is in the selection of a compiler that one experiences some problems. At first, the GNU Modula 2 reported that it was not finished. However, recent checks have reported that the system was now complete. Yet, following the directions for installing the system both on the PCLinuxOS partition, and on one I have for Debian Lenny 5.0, yielded unsuccessful results. Here are the instructions given for obtaining and installing the system:

“For example you should be able to download the latest version of GNU Modula-2 and GCC using these commands:”

```
$ wget
http://flopssie.comp.glam.ac.uk/downlo
ad/c/gcc-4.1.2+gm2.\ cvs-latest.tar.gz
```

```
$ tar xzf gcc-4.1.2+gm2-cvs-
latest.tar.gz
```

This step is successful and will get the latest version of these two files. Next, it becomes necessary to build the system. So the text continues:

“On a GNU/Linux system, you should also be able to build it using these commands. The following commands assume your shell is '/bin/bash'. To build GNU Modula-2 type:”

```
$ mkdir -p $HOME/opt
```

```
$ mkdir -p build-4.1.2
```

```
$ cd build-4.1.2
```

```
$ ../gcc-4.1.2+gm2-cvs-latest/configure
--enable-languages=c,c++,gm2 \
--disable-multilib --enable-
checking=all --prefix=$HOME/opt
```

```
$ make "SHELL=/bin/bash"
```

“To install GNU Modula-2, after a successful build, type:”

```
$ make "SHELL=/bin/bash" install
```

```
$ cd ..
```

“Now you should be able to perform:”


```
$ export PATH=$HOME/opt/bin:$PATH
```

```
$ cd gcc-4.1.2/gcc/gm2/examples/hello
```

```
$ make
```


“which will create an 'a.out' for the infamous hello world example.”

However, when attempting the ' make “SHELL=/bin/bash” ' the system reports “/lib/cpp fails sanity check.” By tracing the links for cpp in its trail beginning with “/lib/cpp,” we learned that this refers to the gcc version 4.4, and not the version 4.1.2 as should be used by this system. Now, as the article on Fortran just appeared and this article should not reach print until August 2010, perhaps by this time an easy to install version of the GNU Modula-2 system will be in the repository. The complete system has just been finished and they are setting up deb packages for Lenny with, I would assume, others to follow.

Another system is the XDS, which provides translation from a mod file into ansi standard C. Simply download either the native language packet or the C packet and install it. Then, one sets the path to include its location. The command xm hello.mod yields a file hello.c. Yet when attempting to compile this with gcc, it reports that the inout.h, and several other files, can't be located. The xds package does double duty in being able to compile Oberon2, which is the OO version of Modula-2, also developed by Niklaus Wirth. 

Answers to Mark Szorady's Double Take:

- (1) Helmet smaller;
- (2) Shirt stripes different;
- (3) Hair shorter in back;
- (4) Satellite dish tilted down;
- (5) Laptop screen smaller;
- (6) “Totally” changed to “entirely”;
- (7) Mouth closed

Screenshot Showcase

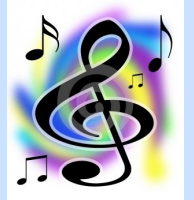


Posted by T6, July 26, 2010, running KDE4

ms_meme's Nook: PCLOLOLOS



OGG



MP3

In the summer time and you wanna be cool
Grab your PC head right straight for the pool
I mean your PC your

P C L O L O L O S

Let the fun begin we're gonna do it again and again

Come on and sit right down and enjoy the breeze
Boot right up just as fast as you please
On your PC your

P C L O L O L O S

Let the fun begin we're gonna do it again and again



Take a sip or two of your favorite brew
Go on line you'll know just what to do
With your PC your

P C L O L O L O S

Let the fun begin we're gonna do it again and again

Invite all your friends they'll have a blast
Your PC really was meant to last
Love your PC your

P C L O L O L O S

Let the fun begin we're gonna do it again and again

Forum Foibles: Fun With PCLinuxOS

FUN with PCLinuxOS

Chuck Chunder: What's your fav time waster and why? I happen to like the hydrogen drum machine:

- * Annoys the other people in the house.
- * No expensive drum kit.
- * No space taken up when not in use.
- * Wastes time wonderfully.

longtom: Thanks for pointing me to that program! My son will love it - and I get his earphones ready. Otherwise I just purchased Settlers 6 on a serious special - love this kind of games...

Chuck Chunder: You can use the keyboard too. Start by using the keys on the bottom row (z-m), also s,t,q,w

grnich: Online flash game. Google search "Kitten Cannon" It never gets old. Have fun.

MBGguy: freedoom-iwad - in the repositories.

Weirdwolf: +1 Only play it 3-4 times a year though.

jaydot: freecell, mahjongg, knetwalk. hours gone unnoticed.

Rudge: I actually play the drums so I can see myself **waisting a bunch of time** with this. Thanks. It's good old Frozen Bubble for me. I do toggle the music off after about an hour, oh and I run it with the -notime option so I can set up my shots verrry carefully.

TuxTorch: I'm a drummer too! I'll check this out. LMMS is good for electronic music as well replaces Fruity Loops in Windows, for games I've been playing Ice Breaker (icebreaker in repositories), Super Tux, Gnometriz, Hedgewars, etc.

Rudge: Nice, so far it seems "crashy" but I can work around that. It took me a bit to figure out how to adjust the sustain of a given instrument but this is great! Thanks, I didn't know about it.

TuxTorch: No problem, fruity loops was one program I was missing when I first came to Linux then I found LMMS. It does take some getting used to...

Xyus: When I kill time, I usually use something very Sharp. Like Mono. But seriously, I haven't used PCLOS long enough to have a favorite time killer, but I've played a lot of Battle for Wesnoth over the last few days. And I carried over my use of "messing with Psyche" (i.e. Making random, highly annoying, musical "noises") as a pass-time from Windows. I use the windows version under WINE, as it seems the Linux version hasn't been worked on for a while. I've got the source from the SVN repo, though, and I'm going to play with that and see what I can get.

parnote: Hmm ... **when I get bored**, I usually just write another magazine article.

Chuck Chunder: Yes, and that boredom is certainly well conveyed in your articles.

MBGguy: Much appreciated. Keep up the exceptional work! PCLinuxOS succeeds because of folks like you! Not having your skills,time, and commitment, I salute you.


sammy2fish: When I get bored..... Time to re-install due to stuff not working like I'd like them to; buy another LP on eBay to rip on my usb record player; try a new a new theme and tweak the heck out of it and discard it because I didn't like it afterall; or see who's on the forums while sipping a rye&coke...

Ruel24: My favorite time waster is YouTube. I can't get enough of rare concert footage of my favorite bands.

longtom: Time wasting and noise go together in our house as well. My little son (12) saved hard for a drum kit and got himself a nice Ludwig a year ago. Since then on every off weekend I get out my old and trusty Gibson, rig a mike on a broom stick and chase it all through a 24 year old Roland 60W Combo. That together with the drums gets the neighbourhood going - and the rest of the family fleeing. We looove it - and time flies. Wipe your eyes and it is way to late for all those weekend chores I was meant to do....

Xyus: Forget my previously stated hobbies, I just discovered that Dwarf Fortress 0.31.03 works under Wine perfectly! Now I can get back to mercilessly slaughtering things with their own limbs!

jaydot: one i used to play a lot was gweled, but the newer version insists on playing an annoying tune i am unable to switch off. shame about that as i'm not so keen on its variants.

Lee2010: When I get bored I rearrange my desktop.... Oh and of course I play the flash game when penguins attack. 

Game Zone: World of Goo

By Ryan Smith (Xyus)

Every once in a while, an independent game is released that throws the entire games industry – or, at least a portion of the industry – into an uproar for a short time. Within that time, many, many reviews will be written about the game, it will win several prominent awards, and it will become spotlighted on all manner of “Recommended Games” lists.

These games are notable in that they did not gain their well-deserved popularity through a large financial backing, an all-encompassing marketing strategy, or, in some cases, even an existing fan-company recognition. Rather, they gained their popularity the hard way – through great game play, an interesting and unique concept, a whole lot of work, and (in this case) a rather unique marketing gimmick.

No doubt you have heard of World of Goo, the game developed by 2D-Boy - a small company founded by two former EA employees, Kyle Gabler and Ron Carmel - that became a media sensation for a time last year when 2D-Boy announced that they were celebrating World of Goo's One Year Anniversary with a temporary “Pay-What-You-Want” sale. The sale attracted all sorts – from those who didn't have much of

their budget dedicated to gaming, to those who earlier pirated the game and took the opportunity to go legit, to just general cheapskates. And while the idea of a game that “costs what you want” gained everyone's attention, it appears quality kept them around - World of Goo's popularity seems to have long outlasted the sale, although unfortunately not at the same level.

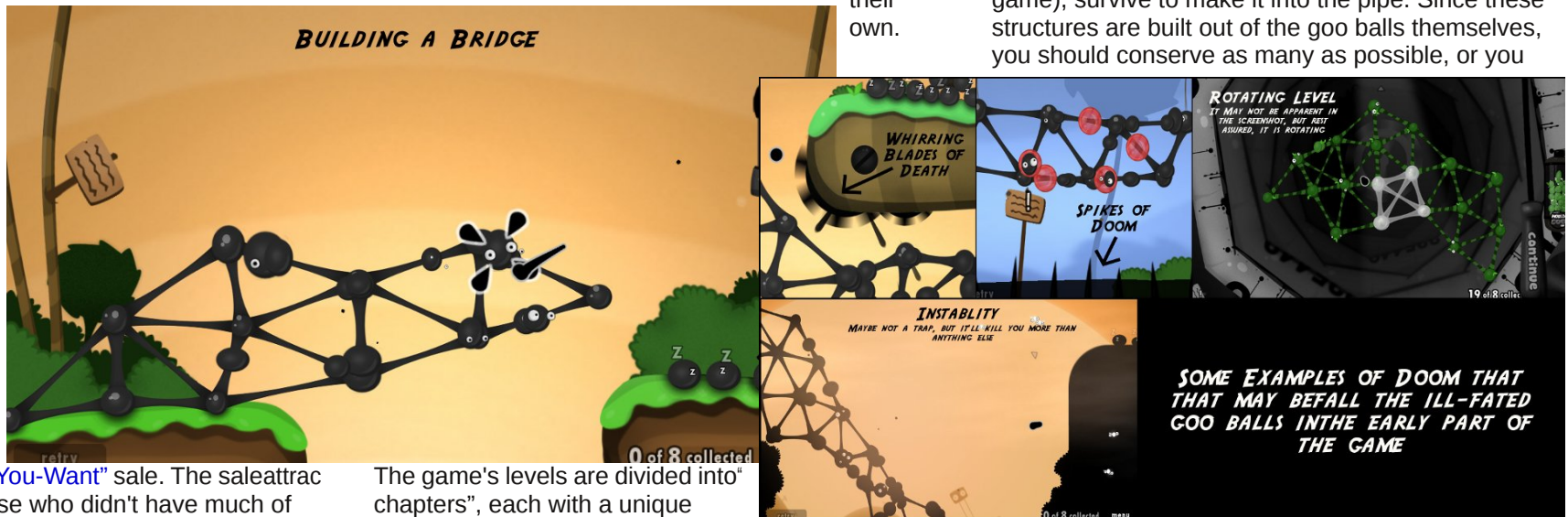
Game Play

World of Goo is a physics-puzzle game in which the goal in most levels is to direct the little goo globs into a pipe to either be processed into various products by the apparent corporate overlords, World of Goo Corporation, or to help them satisfy their insatiable need to explore. This is usually accomplished by carefully building a tower or structure of some kind, though quite a few levels have unique puzzles of their own.

theme and taking place in a certain season. The chapters of World of Goo follow the game's 'story', which is presented at the end of, (or occasionally during), each chapter in the form of animated sequences.

Choose a name the first time you start. The game is played entirely by mouse. The controls are pretty much limited to picking up and moving the goo balls by clicking and holding the left mouse button, then letting go of the globs in advantageous positions to build your tower. These controls are deceptively simple, though. Rest assured, after the first few practice levels, this game will keep your brain "on its toes".

Most levels of the game are completed by building a tower or bridge to a pipe, while making sure that enough goo balls, (an amount predetermined by the game), survive to make it into the pipe. Since these structures are built out of the goo balls themselves, you should conserve as many as possible, or you



The game's levels are divided into "chapters", each with a unique

may find yourself in the sticky situation of not being able to finish the level. (Although there are measures for this – see hints section.)

While that seems simple enough, building a tower in World of Goo is usually no small task. The game likes to throw all manner of challenges your way, from high velocity winds, to making all of your goo balls particularly flammable in a level filled with lava, to a level that continuously rotates. A few levels are action-game like in pace.

“online” - you may see others' towers, (in the form of clouds in the background), and the game tracks the largest tower in the world. Bonus Fun: The theme of the World of Goo Corporation HQ changes as you advance in the game's “plot”.

Availability

World of Goo is available for Linux, Windows, and MacOS (And Wii through WiiWare). World of Goo is a commercial game, and may be

purchased using PayPal or a Credit Card for 20\$(US) directly from the [official site](#). For those of you interested in taking this game for a test spin, a playable demo is available from the site.

System Requirements

Minimum Recommended:

- Processor: 1 GHz IA-32 compatible processor
- Memory: 512 MB RAM
- Graphics: Hardware Accelerated OpenGL drivers
- Sound: ALSA or OSS compatible sound drivers



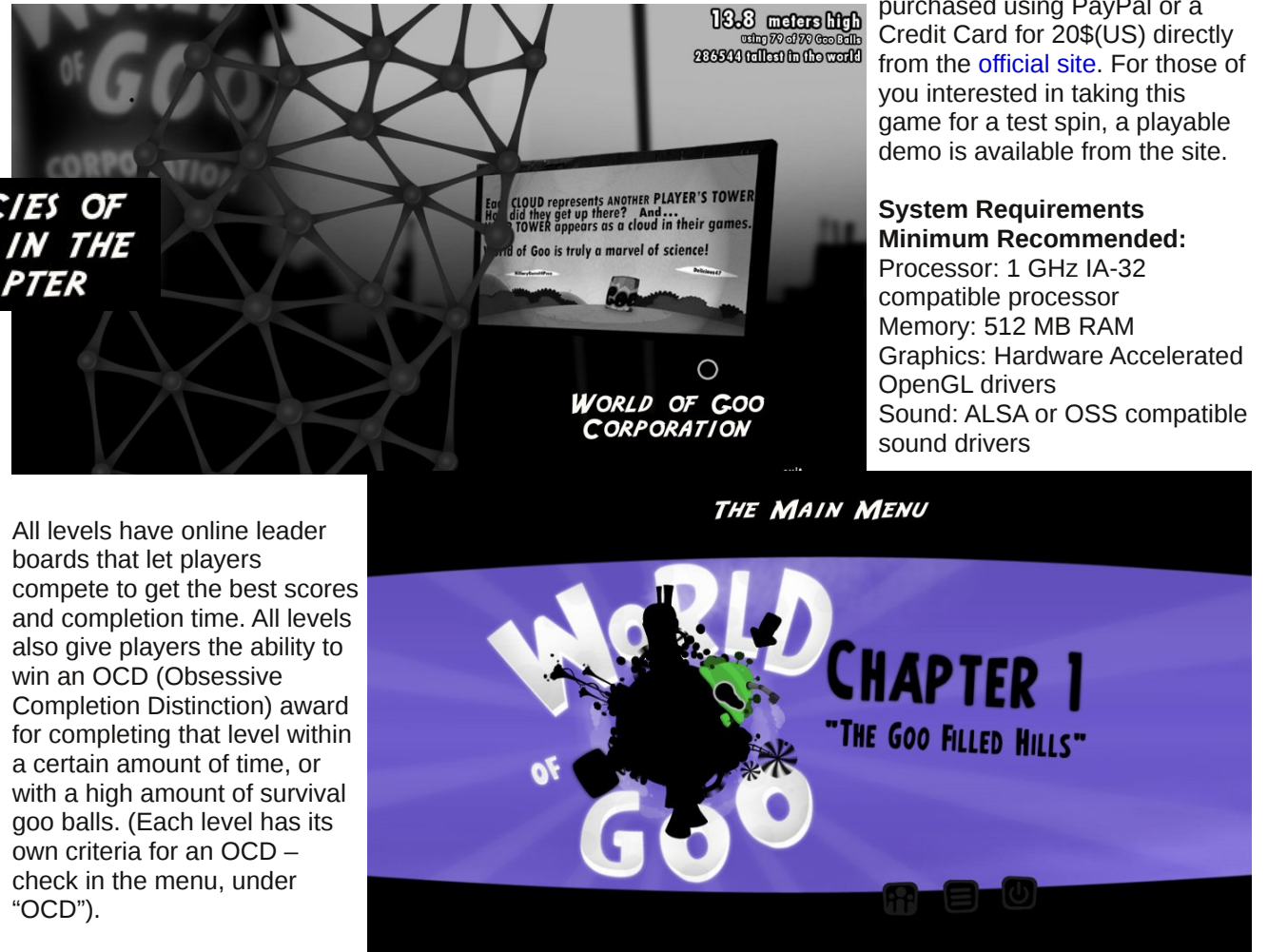
There are many types of goo balls, and depending on the level, one or more types of goo balls may be present. Each has different abilities and weaknesses, which can help or hinder your progress in a given level. For example, the black goo balls – the most common – have the disadvantage that they cannot be manually disconnected from the structure once they are attached. The green goo balls can, which allows you to rebuild your structures at will.

Extras

There are a few not-strictly-game-play-but-still-related elements in World of Goo.

The World of Goo Corporation HQ is a special “free-play” chapter where all excess goo balls, (those that were not needed to complete the level but went into the pipe anyway), go after each level. The goal here is to build the largest tower you can out of these excess goos. World of Goo Corporation HQ is

All levels have online leader boards that let players compete to get the best scores and completion time. All levels also give players the ability to win an OCD (Obsessive Completion Distinction) award for completing that level within a certain amount of time, or with a high amount of survival goo balls. (Each level has its own criteria for an OCD – check in the menu, under “OCD”).



I believe all of the libraries in World of Goo are statically linked, so you need not worry about having the correct libraries. Check the readme included in the demo/full game, should you need these details.

Hints and Tips

As with last month's Osmos, you'll get the hang of this game as you play it. But once again, I have a few general tips.

After the first few levels, if you happen to mess up, you can click on a time bug to go back one "turn". Don't forget about this! It can easily be the most useful feature in the game.

Watch the base of your tower/bridge/balloon/etc! It can be all too easy to concentrate on the top and neglect the holes at the bottom. You will then get to watch the sight of your hard work crash down around you. Fun.

Make sure to read the signs in each of the levels. Although sometimes they only contain flavor text, other times they contain very useful tips.

Bored of your plain install? World of Goo has a relatively strong modding community. Try GooFans. Just remember – The developers of World of Goo do not directly support these player created mods. They may cause problems with your game. Just make sure to back up your copy before using third-party mods, as with any game, and you should be fine.

Conclusion/My Thoughts

This is a pretty good game. That may be saying something coming from me. Usually this game would be too short or linear for my tastes, but for some reason I didn't notice much. The game play is great, and stays fun for a while after the first play through. I've had the game for nearly a year now, and still play it every so often. The artwork and music style are really unique, and they tie the game together perfectly.

All in all, I would certainly recommend it to puzzle lovers, no doubt about that. To all others: give the demo a shot. I have a feeling that all but those with the most specific tastes will enjoy this game. ○



International Community PCLinuxOS Sites



Testimonial: Hi from Washington State

by Jason Minks (J2M)


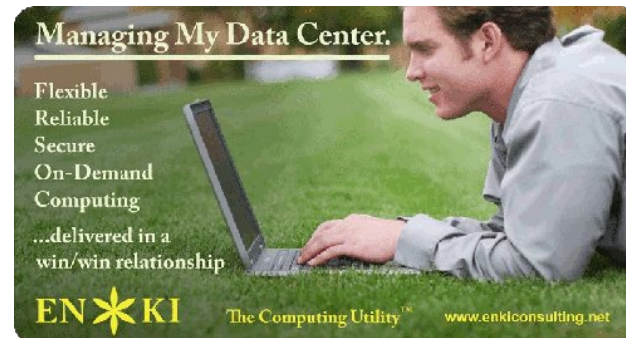
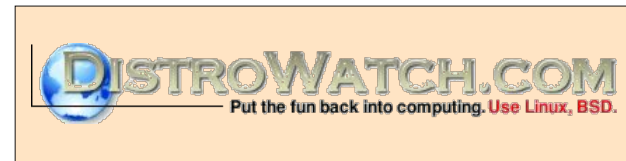
Wow! Finding this forum has provided me with my second PCLinuxOS-related Eureka! moment in just a few days! Google is indeed my friend! A few days ago, I decided I was finally going to go open-source on an OS to replace the XP that had been on a laptop I have. I had been putting that off for a long time, but just liked the driving concepts behind the open-source movement. So I looked into what Linux derivative might be best for a windows-familiar trier-outer. When I went to the download site to get the PCLinuxOS ISO is when I got the first pleasant "Eureka" surprise. I was delighted to see PAGES of available distros! I thought "this is so cool! If this PCLinuxOS thing is any good, then this is definitely something I want to be a part of."

So far, (only three days, admittedly, but so far so good) PCLinuxOS has exceeded my expectations! It sure isn't Windows, but I'm having a lot of fun



figuring the new stuff out! Like any new venture, I'm sure eventually I'll go from just kind of laying on the ice, as I am now, to waddling towards the shore, to gliding through the ocean. Maybe someday I might even understand some of what the advanced folks here are saying!

Well, that's where I'm at, anyhow. Physically, I live in the greater area near MS headquarters, so I'm not quite sure if I should be afraid of their enforcement squads or what. (Just kidding.) It's so handy that there are so many resources on the web to jumpstart "dead noobs" (as my son might call us - yes, I'm old enough to have a son who says stuff like that - dern whippersnappers!) like me. It's amazing how people work together for a purpose with this open-source stuff. It's pretty cool. ○



A magazine just isn't a magazine without articles to fill the pages.

If you have article ideas, or if you would like to contribute articles to the PCLinuxOS Magazine, send an email to:
pclinuxos.mag@gmail.com

We are interested in general articles about Linux, and (of course), articles specific to PCLinuxOS.

Clipping Objects Together To Create Cool Graphics With Inkscape

by Timeth

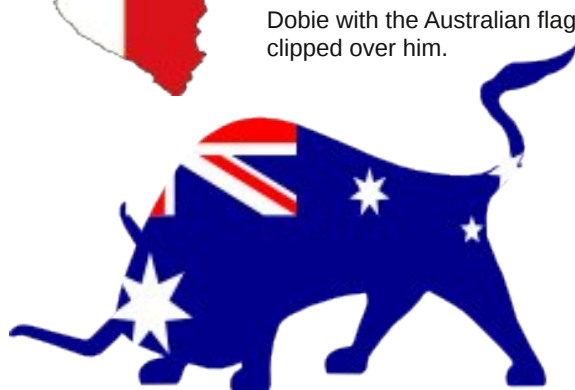
This is a very simple tutorial for a technique anyone can use to clip one object to another, so that the image/text at the front defines the final shape of the image, but it also takes on the color/design of the image that you put behind it. It's something you can use on your wallpaper, for your forum profile picture or signature, or anywhere else you'd like to use it. Here are a few examples using country flags, because they're easily recognizable.



Peru with the country's flag clipped over it.



The shape of the country of Peru with the flag clipped over it.



Dobie with the Australian flag clipped over him.

Just a few things before we get started.

1. You'll need to install Inkscape from Synaptic for this tutorial, if you have not already done so.
2. You can choose any image/shape and any second flag/image you like but for this tutorial. I'll use Dobie and the flag of The Republic of Seychelles (because it's a cool flag). You can download Dobie here: <http://db.tt/moBIMg>.

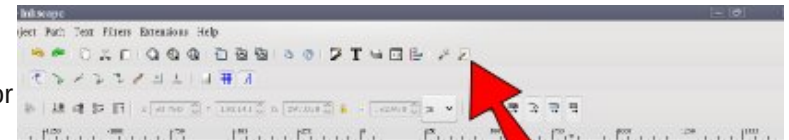
Use any flag you like, but this is the flag I'm using: http://upload.wikimedia.org/wikipedia/commons/9/92/Flag_of_the_Seychelles.svg.

Wikimedia commons is a great place to find flags! http://commons.wikimedia.org/wiki/Main_Page.

3. When choosing an image/shape that the flag will be clipped to, (such as Dobie or the shape of a country), you'll usually need to use an SVG type image. If you use a PNG or JPG, while it may look to be the shape of a country, for example, it will actually have an invisible rectangle around it. This means you can't clip it to the shape of the country. As you will see, the Dobie image is an SVG type image, and so is the Seychelles flag, although it doesn't need to be. The flag can be PNG, JPG or any image format that Inkscape supports, although for the best results when resizing the flag, SVG is recommended. Wikimedia commons is also a great place to find SVG type images of anything, not just flags. There are some other great sites for SVG images, and I'll provide links for some of them at the end of the tutorial.

Let's get stuck in!

1. Download the Dobie image and the flag, and put them on your desktop.
2. Click on Inkscape to open the application and click the 'shrink window' button on the window frame at the top, so you are viewing Inkscape in a smaller window, and you can see part of the desktop behind it.
3. Now drag and drop Dobie onto the Inkscape canvas. Anywhere is ok. Before we go any further, let's get rid of that page you can see on the canvas, because we won't be needing it. Click on the 'document properties' button as shown in the screen shot, and uncheck the 'show page border' box.

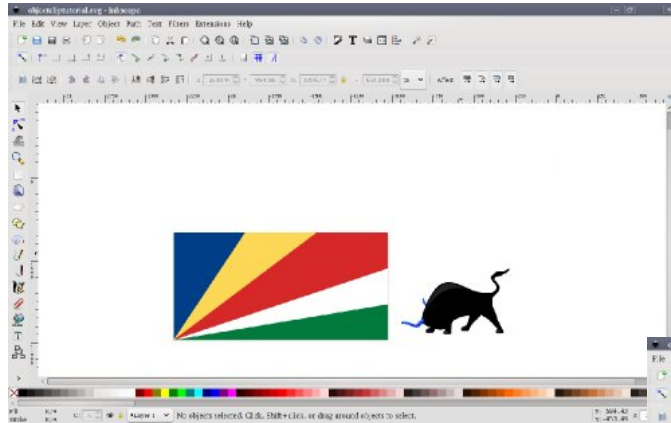


Click the document properties button and uncheck the show page border box.



Clipping Objects Together To Create Cool Graphics With Inkscape

4. Next, drag and drop your flag onto the canvas somewhere near Dobie. You can now maximize the Inkscape screen so that it fills the whole desktop.



5. If you are using Dobie and the same Seychelles flag, you won't need to do this next step, (because they are both SVG images), but it is important to do it if you are using any JPG or PNG images. You need to go to the menu at the top and click on **Extensions > Images > Embed Images**, then click apply, then close the little 'Embed Images' box. This embeds the PNG, JPG etc. image into the code of the SVG image so that it's not still linking to the saved image on your desktop.

6. Left click and hold, and drag the flag, and drop it on top of Dobie.

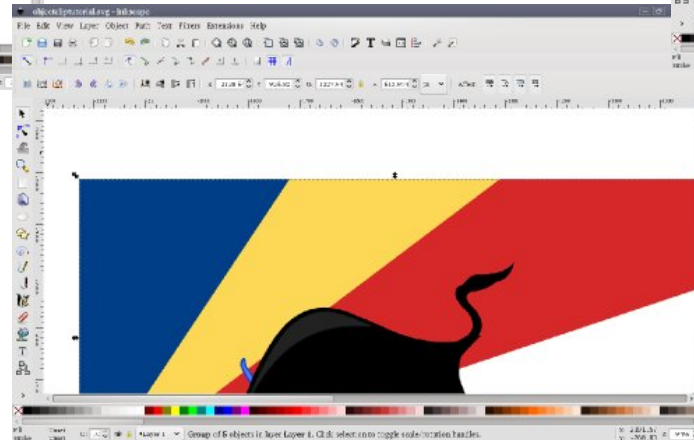
7. Then click the 'lower selection to bottom' button which is in the toolbar just above the ruler at the top of the canvas. It looks a bit like this.



This will drop the flag down to the bottom so that you can see Dobie on top of the flag. If you added the two images onto the canvas in the reverse order at the beginning, Dobie may already be on top which is fine.

8. To zoom in and out, use the up/down zoom keys in the bottom right corner of the window.

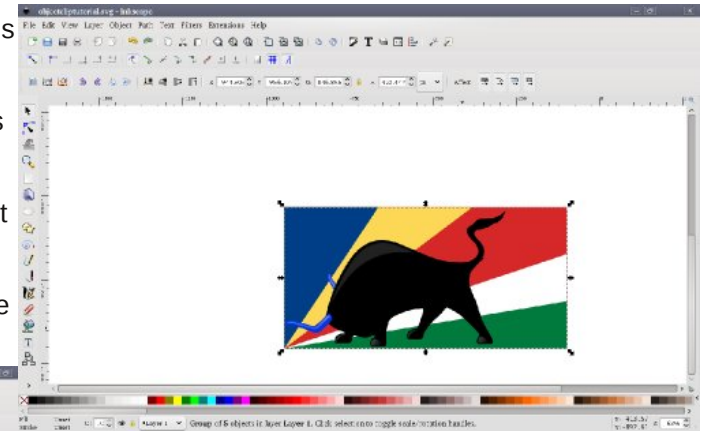
9. As you can see, the flag is larger than Dobie, but we want as much of the flag as possible to be clipped onto Dobie. Let's resize the flag so that it's closer to Dobie's size. Click on the flag until you see these arrow guides surrounding it.



There are two types of guides, so you may need to click a couple of times until you get these particular guides.

10. Next, holding down **Shift + Control**, click and drag one of the corner arrows in towards the centre of the flag until it is tight around the shape of Dobie. You can click on the flag itself and drag it around if

you need to re-position it a little, or you can click and drag Dobie around into a different position.



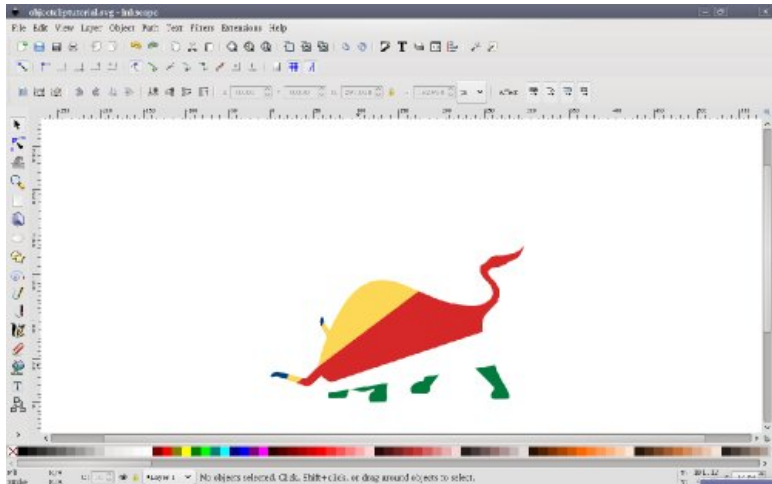
You can also drag any one of the arrow guides on the sides of the flag if you need to adjust only one side. For example, in this last screenshot, you could click the right middle arrow guide on the flag and drag it toward Dobie's bum, but I've decided to leave it where it is. ****REMEMBER**** The 'undo last action' button in the toolbar at the top is your best friend!! It's very handy, if something goes wrong. When you are happy with the placement of both Dobie and the flag, it's time to clip the flag.

11. Click somewhere on the white canvas and drag a rectangle around both the flag and Dobie. This will select both of them putting guide lines around both.

12. Now go to the menu at the top and click **Object > Clip > Set**. Now you're done!!

Your flag should now be clipped to the shape of Dobie.

Clipping Objects Together To Create Cool Graphics With Inkscape



Selection, choose where you want to save the image, and select Export.

I've been working on a project for while that uses this technique. I've been clipping various countries' flags to the PCLinuxOS text and have uploaded them to my blog. So far I'm up to 27 flags, and more to come if anyone asks for them. Check it out and download them here:

<http://timeth.wordpress.com/category/logos/>
. OR, you could try to make one yourself!

Here's an example:

The word "PCLinuxOS" is displayed in a large, 3D, blue-outlined font. Each letter is filled with a different national flag, creating a colorful and patriotic effect. The letters are set against a white background with a subtle drop shadow.

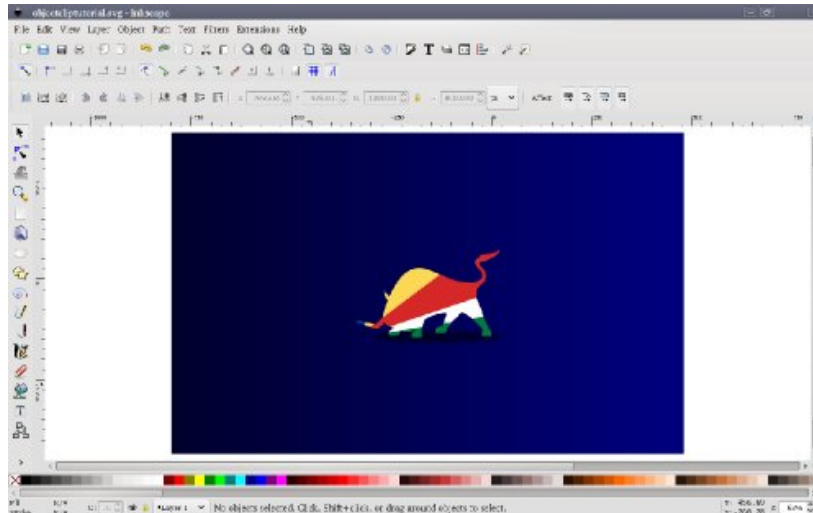
13. Now that it's done, there are a few things you can do with it.

- You can export the image to PNG format if you want to use it just as it is on a forum or website.

- You can drag a desktop wallpaper onto the canvas and position/resize Dobie on it, then run step 5 again and export it to PNG format and use it for your desktop wallpaper.

- You can create a new wallpaper on the canvas, position/resize Dobie on it and export it to PNG format to use as your desktop wallpaper like I've done in the next screenshot. --->

14. Exporting your image to PNG format is easy. Select the image you've created and go to the menu at the top. Click on File > Export Bitmap. Then click



Well, that's it! I hope this tutorial was easy to understand. If anything was unclear, please ask questions on the forum in the Artwork and Theme Requests section. There are people there who can help.

Don't forget to show off your creations in the Artwork and Theme Requests or Screenshots sections on the forum! See you there!

As I promised earlier, here are some sites where you can download some SVG images:

<http://www.clker.com>

<http://openclipart.org>

http://commons.wikimedia.org/wiki/Main_Page

<http://screencasters.heathenx.org> (Fantastic video tutorials here for Inkscape) 

Firefox Add-ons: Xmarks Marks The Spot

by Paul Arnote (parnote)

I have a netbook, a laptop I carry in my briefcase, two laptops that sit near my favorite spot in the living room, a desktop computer in a spare bedroom that runs my networked printer, and another desktop in the basement that serves as my test box. There's nothing more annoying, (to me, anyway), than switching computers and not having access to all of my favorite bookmarks in my web browser. Sure, I could manually enter all those bookmarks, but invariably some bookmarks will be left out. Let's not mention all the work involved to try to enter all those bookmarks manually on six different computers. It

also becomes virtually impossible to keep the bookmarks on all six computers synced.

It's time to meet Xmarks. Originally named FoXmarks, Xmarks allows you to sync your bookmarks across multiple computers, automatically. No fuss, no trouble. Just set it up and it keeps your browser bookmarks synced and up-to-date across all of your computers that you have Xmarks running on.

Having broken away from its original exclusive domain of working only with the Firefox web browser, Xmarks also now works with Internet

Explorer, Safari (Mac only), and Google Chrome. Despite requests for over a year now, the makers of Xmarks have no plans to support the Opera web browser any time soon. As you might expect, the version of Xmarks for Firefox sports the most features, since that's the browser where Xmarks got its start. Here is a graphic (bottom of page) from the Xmarks web site that gives a breakdown of the features that are available under each browser.






One of the newest features of Xmarks is the ability to sync open tabs in a browser across the various computers you use. Simply activate the feature on all the computers you use, and you can go from computer to computer, and choose to open the same tabs. Currently, this feature only works under Firefox, Internet Explorer, and Chrome.

I've been mentioning throughout this review that some feature are only available to users of the Firefox web browser. Those exclusive features include Smarter Search, User Your Own Server, Secure Password Sync, Suggested Tags, and Site Info. Only time will tell how many of those features filter to the other supported browsers that are capable of utilizing the Xmarks plug in.

Of course, the whole reason for installing the Xmarks plug in is to sync all of your bookmarks across multiple computers. This is something that Xmarks does exceptionally well. What's best is that Xmarks syncs your bookmarks in the background, unobtrusively, and often times without you even realizing that it's happening.

As an added benefit of using Xmarks, you literally have total access to your regular bookmarks,

Browser/Platform:	Firefox	Internet Explorer	Mac OS X 10.5 (Leopard)	Mac OS X 10.6 (Snow Leopard)	Chrome
Latest Xmarks Version	3.6.15	1.2.0	1.3.2	1.3.2	0.7
Operating Systems	Windows; Mac OS X; Linux	Windows	Mac OS X 10.5 (Leopard)	Mac OS X 10.6 (Snow Leopard)	Windows, Mac OS X 10.6, Linux
Supported Browsers	Firefox 3	Internet Explorer 7, 8	Safari 4	Safari 4	Chrome
Bookmark Sync	✓	✓	✓	✓	✓
Backup and Restore	✓	✓	✓	✓	✓
Online Bookmarks Access	✓	✓	✓	✓	✓
Bookmarks Sharing	✓	✓	✓	✓	✓
Sync Profiles	✓	✓	✓	✓	✓
Smarter Search	✓				
iPhone Bookmarks Sync			✓	✓	
Open Tabs Sync	✓	✓			✓
Use Your Own Server	✓				
Secure Password Sync	✓				
Suggested Tags	✓				
Site Info	✓				

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regardless of what computer you are using, and regardless if that computer is running Xmarks or not. If you are on a computer other than your own that does not have Xmarks installed, you can simply go to the Xmarks web site and log in with your Xmarks username and password. Then, click on the "My Bookmarks" link and all of your synced bookmarks will be displayed in the browser window.

Installing Xmarks

To start with, head over to the [Xmarks web site](#) and download the plug in for your browser. Alternatively, you can often use the "find plugins tool" of your favorite supported browser to download and install the plug in. For the sake of brevity, I'm going to omit some of the more obvious screens in the Xmarks installation sequence.



The first screen you come to allows you to create an Xmarks account, or to log into your existing one. Since I already have an account, I've chosen to log into my existing account. If you choose to set up a new account, you will be given the opportunity to set up that new account.



In the next screen, I provide my username and password to the Xmarks server. Click on "Next" to proceed.

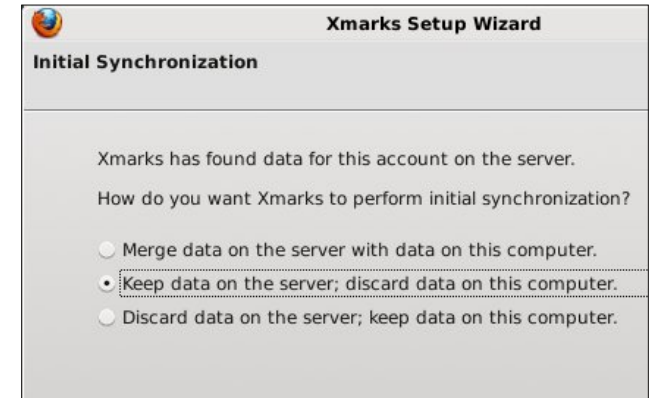


Since I'm installing this under Firefox, I'm given the opportunity to have Xmarks sync my passwords. My

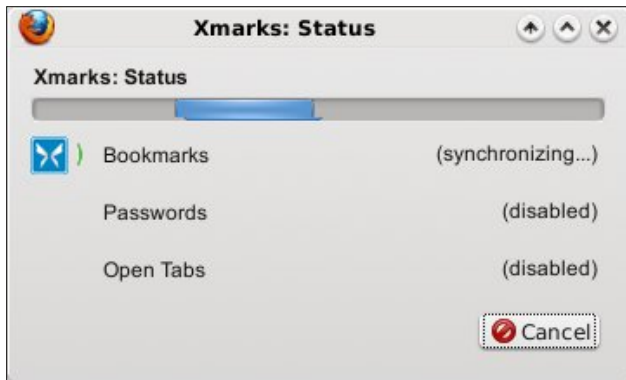
personal choice is to opt out of having Xmarks store my passwords, but your choice may be different.



You are then given an opportunity to enable the newest feature of Xmarks, which is to enable synchronization of open tabs. Again, my personal choice is to opt out of this option, since I often have different tasks underway on the various computers I have running. So my choice is based on how I work with my computers, and your choice may differ.



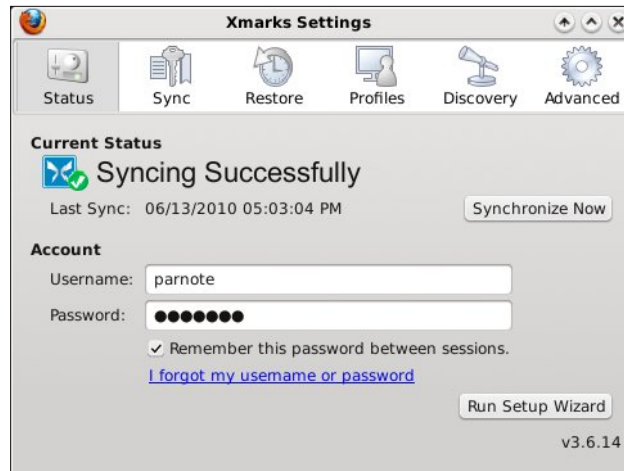
This is where the real activity takes place with Xmarks. The default choice on this screen is to merge the data on the server with the data on the current computer. Since I already have an Xmarks account and have things set up the way I like, I chose to keep the data on the server, and discard the data on the current computer. You may also discard the data on the server, keeping only the bookmarks on the current computer. If you're not sure of what to choose, you can view your existing bookmarks stored on the Xmarks server.



After displaying a warning message, presumably to give you an opportunity to alter your choice of which bookmarks to keep, Xmarks will sync your bookmarks with the Xmarks server. A confirmation web page will be displayed once your bookmarks are successfully synced.

Xmarks Settings

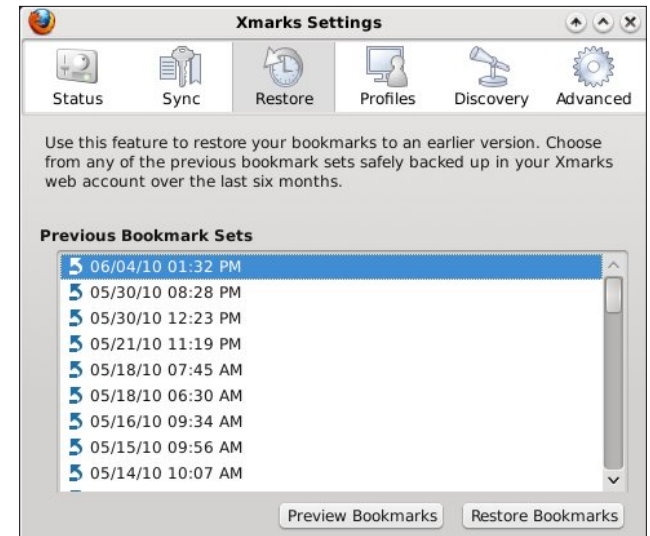
Under the first tab, Status, you can view your username, enter your password, tell Xmarks to remember your password between sessions,



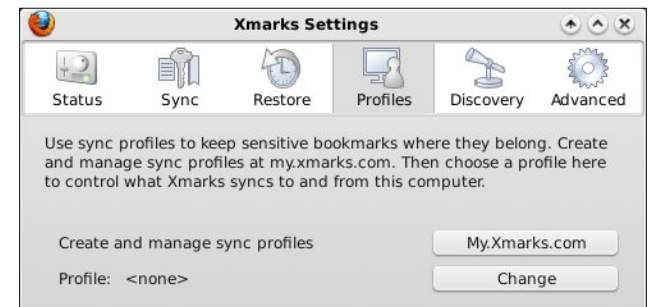
synchronize your bookmarks, or re-run the setup wizard.



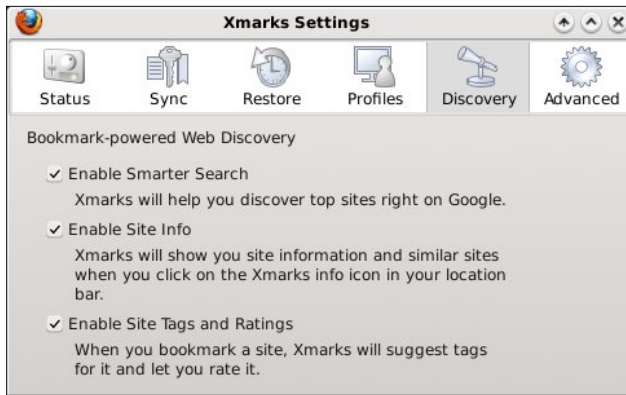
The second tab, Sync, allows you to choose which items to sync using Xmarks, as well as a few synchronization options.



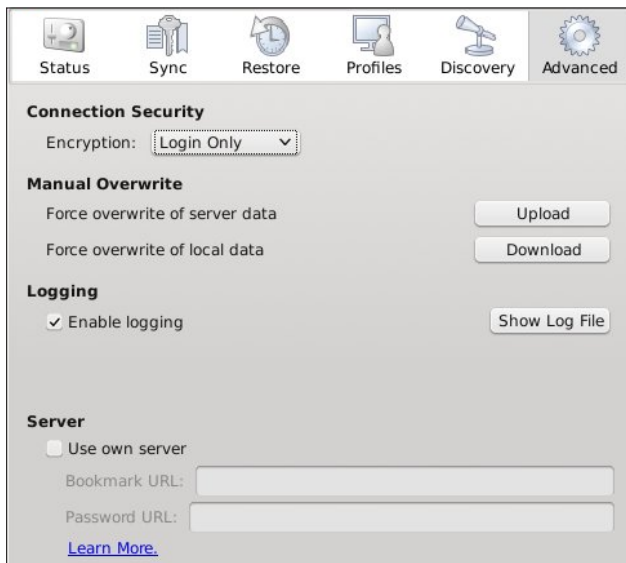
Under the third tab, Restore, you can choose to restore your bookmarks from a previous date. This, of course, is handy if your bookmarks become corrupted and sync before you realize the problem.



The fourth tab, Profiles, allows you to manage your Xmark profiles.



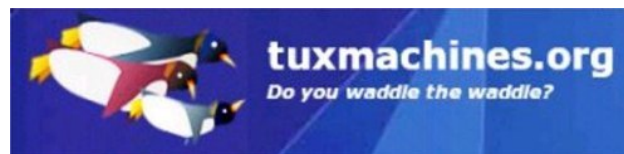
The fifth tab, Discovery, allows you to specify the Xmarks enhancements you want to employ when searching sites, or bookmarking sites.



Under the sixth and last tab, Advanced, you can set up whether or not you want to use encryption with your Xmarks server connection. You can also force overwriting the server data or the data on the current computer.

Conclusion

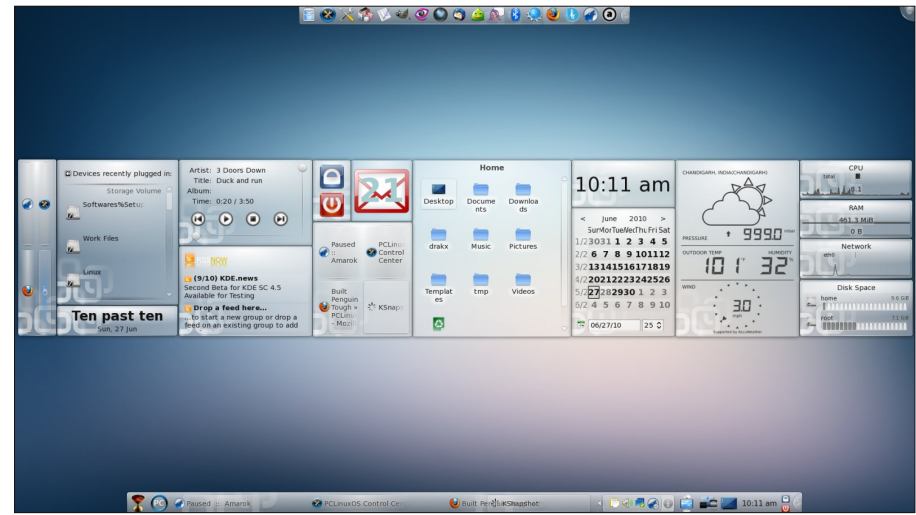
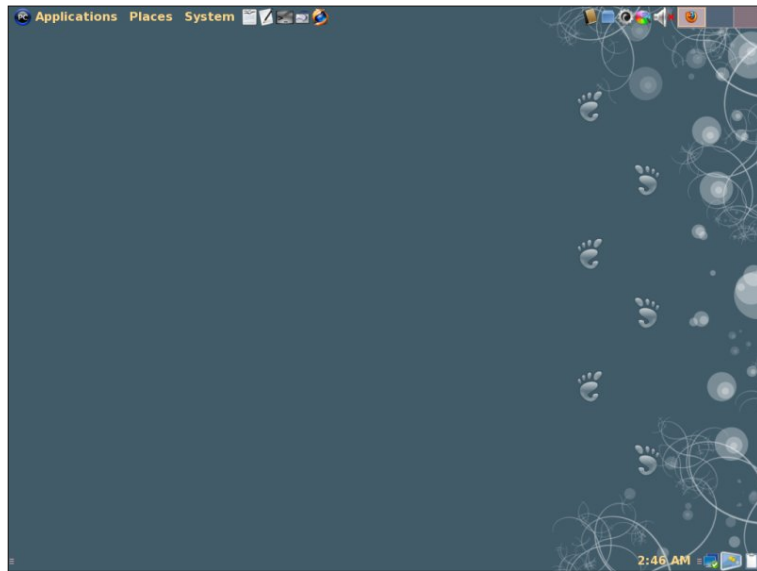
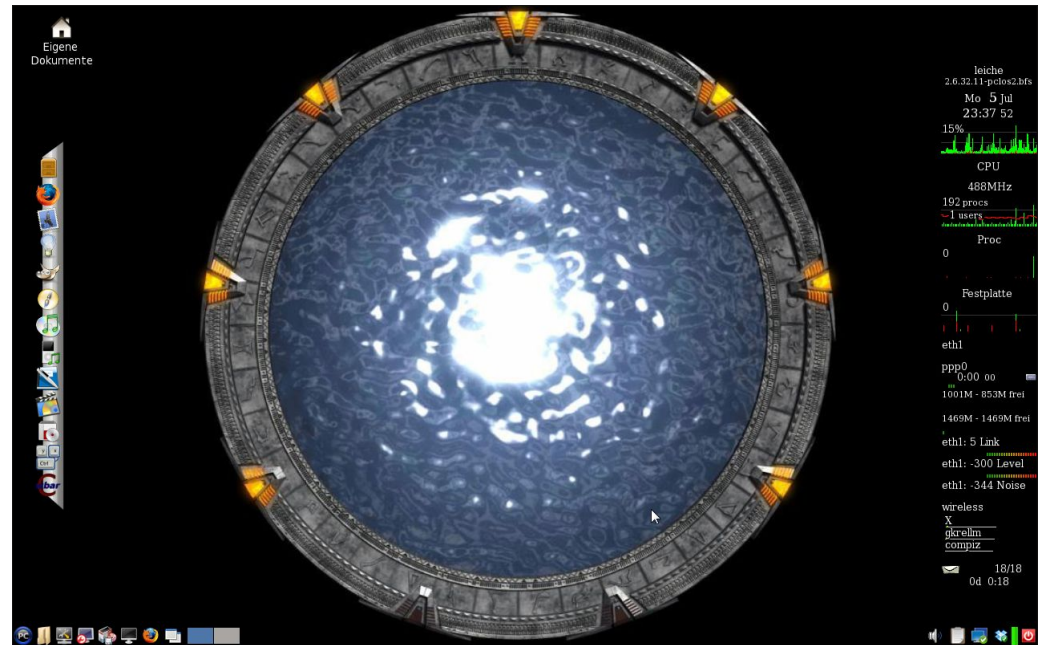
Xmarks is one of those must-have browser plug ins, at least for me. It has made the trap-riddled chore of syncing my bookmarks across multiple computers remarkably easy. It's done for me, without any thought or effort on my part. This has freed me up to tackle other tasks and pursue other interests - time that would have otherwise have been spent syncing my bookmarks. ○



More Screenshot Showcase



TOP: Posted by Bigmazy, July 25, 2010, running KDE4. BOTTOM: Posted by ongoto, July 12, 2010, running Gnome.



TOP: Posted by Leiche, July 5, 2010, running LXDE. BOTTOM: Posted by LinxLover, July 01, 2010, running KDE4.