Extracted from:

Ubuntu Kung Fu (excerpt)

Tips, tricks, hints and hacks

Some excerpts from *Ubuntu Kung Fu*

1   See Your File-Browsing History ☐

Nautilus includes a little-known feature that will track folders you view, just like a web browser tracks the sites you visit. This can be useful when performing system maintenance, especially if, like me, you tend to forget where you've just located that all-important file.

To activate it, click the Places drop-down list above the left pane, and select History. The history view places the most recently visited folders at the top of the list.

2   Avoid Programs Quitting When the Terminal Is Closed ☐

You might have noticed that, whenever you run a program from a terminal window, it quits when the terminal window is closed (there are some exceptions to this, such as the Firefox web browser, but it's generally the case). There are a handful of ways around this. Perhaps the easiest is to precede the command with nohup. For example, to run Gedit, you

might type nohup gedit. Try this now. Then close the terminal window, and see what happens (or, actually, what doesn't happen).

The reason Gedit doesn't quit is that nohup tells the new program to ignore any future "hangup signals," which is to say Gedit is told ignore requests to terminate that are sent to it when the terminal quits.

See also Tip 206, on page 219 of *Ubuntu Kung Fu*, which describes how to use the screen command to create a command-line login that's independent of any terminal window.

3 | Use Ubuntu's Built-in Download Manager □

Downloading big files that take a long time to arrive, such as new Ubuntu installation ISO images, can be fraught with difficulties. You'll need to have a perfect connection for the duration of the download (not always possible with wifi), and the remote server may sometimes drop the connection. Restarting from scratch to download a 670MB file when 669MB of it has arrived fine can be a very frustrating experience!

The solution is wget, Ubuntu's built-in command-line download manager. It runs at the command line, and all you need do is specify the complete URL for the download file, including the http:// or ftp:// components, as applicable. For example, at the time of writing, the Ubuntu 8.04.1 release can be found at http://releases.ubuntu.com/hardy/ubuntu-8.04.1-desktop-i386.iso, so to download this I would type the following into a terminal window:

```
$ wget http://releases.ubuntu.com/hardy/ubuntu-8.04.1-desktop-i386.iso
```

As the download progresses, you'll see a percentage figure progress display, along with figures showing how much has been downloaded and the speed of the transfer. If wget loses the connection for any reason, it'll automatically try again and attempt to resume where it left off. If you want to quit the download, type Ctrl+c. Don't forget to clear up the partially downloaded file.

Because large downloads can take a long time, you might want to use nohup with wget to avoid wget quitting when the terminal window that started it is closed. This will effectively invisibly download the file in the

background and will persist even if you log out (to stop the download if needed, type killall wget into a terminal window/virtual console). See Tip 299, on page 323 of *Ubuntu Kung Fu*, for more information. Alternatively, you might consider using screen to start the wget download in a background command-line instance that you can switch in and out of in order to check progress—see Tip 206, on page 219 of *Ubuntu Kung Fu*, for more information.

You might also be interested in kget, which can be installed using Synaptic (search for the kget package; don't install the KDE4 version) and provides a GUI front end to wget. It's officially a component of the KDE desktop and is designed to work with the Konqueror web browser but works fine under the GNOME desktop and Firefox of Ubuntu. Once installed, you'll find it on the Internet menu. You can drag and drop download links to its program window to start them downloading or click Settings → Show Drop Target for a small window onto which you can drag and drop the download links, like with some Windows download managers. (Tip: Right-click the floating window's minimize/maximize buttons, and select Always On Top; this will stop it from falling behind other program windows.)

4 Turn Your Desktop into Your /home Folder

Do you use your desktop as a dumping ground for files and pretty much ignore your actual /home folder, which is where you *should* store things? If so, you might be interested in this tweak, which effectively makes Ubuntu use your /home folder for the desktop, instead of the actual /home/username/Desktop folder. Anything saved to the desktop, such as files/folders dropped there, will be placed in your /home folder. Additionally, anything in your /home folder will appear on the desktop.

To try this, start gconf-editor, navigate to /apps/nautilus/preferences, and put a check alongside desktop_is_home_dir. Then log out and back in again.

Remember that the contents of your desktop haven't vanished. They're still in the Desktop folder in your /home folder.

| 5 | Install the GNOME Wallpapers | ☐ |

The GNOME Project supplies the desktop technology used by Ubuntu, and the default installation of GNOME includes several very pretty wallpapers that sadly aren't included with Ubuntu. However, you can get them by using Synaptic to search for and install the gnome-backgrounds package. Once installed, just right-click the desktop as usual, and select Change Desktop Background. The new wallpapers will be included in the list.

| 6 | Switch to a Lightweight File Manager | ☐ |

Thunar is the default file manager used in the stripped-back Xfce4 desktop of Xubuntu. It starts quickly and has a low-memory footprint, yet it is very powerful and provides all the features you are likely to need. In fact, it beats Nautilus in many departments when it comes to features.[1] It can be used to replace Nautilus within the Ubuntu desktop for some operations, although bear in mind that Nautilus windows will still appear sometimes, such as when using Nautilus CD-R/DVD Creator.

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1. One feature of Thunar I particularly appreciate is the ability to rubber-band-select many files in list view, something Nautilus doesn't allow. Thunar also includes the ability to define your own right-click functions, something that is possible in Nautilus but only if you add the Nautilus Actions component, as described in Tip 295, on page 333.
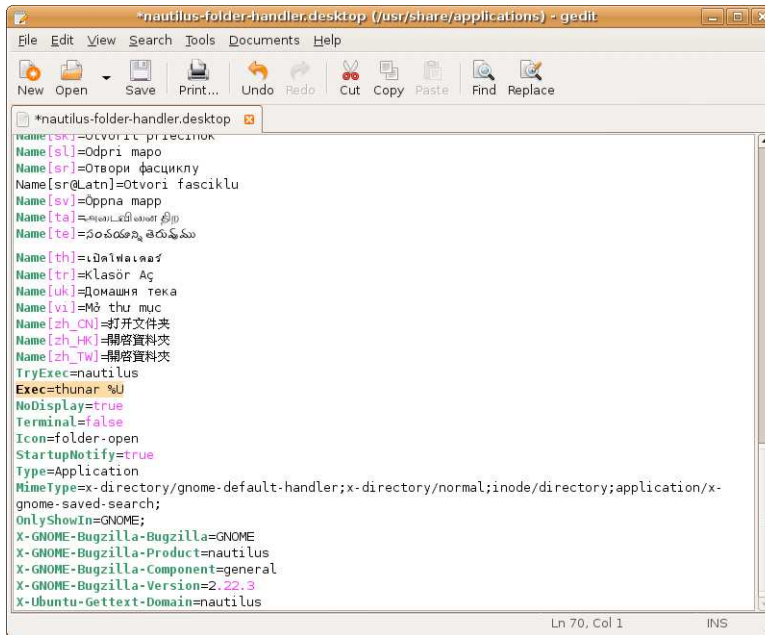
Figure 1.1: Configuring the system to use an alternative file manager (see Tip 6)

Follow these steps to switch to Thunar:

1. Start Synaptic, and search for and install the thunar and thunar-archive-plugin packages. After installation, you can run Thunar by typing thunar in a terminal window.

2. To cause Thunar to open whenever you click an entry in the Places menu, you'll need to edit a configuration file: open a terminal window, and type the following:

```
$ gksu gedit /usr/share/applications/nautilus-folder-handler.desktop
```

   Scroll to the bottom of the file, and look for the line that reads Exec=nautilus --no-desktop %U. Change it so it reads Exec=thunar %U. For an example taken from my text PC, see Figure 1.1.

   Then save the file and test the changes by selecting Places → Home.

This tip works equally well for any alternative file manager. Others you might like to try are Konqueror (KDE's file manager), Dolphin (KDE4's file manager), and Rox-filer, a stripped-down file manager that is extremely lightweight. Just use Synaptic to search for and install konqeuror, doplhin, or rox-filer, respectively. When altering the earlier nautilus-folder-handler.desktop file to make Rox-filer the default, change the line to read Exec=rox-filer, without the %U; Dolphin and Konqueror still require the %U after the command. Note that Rox-filer's configuration is carried out by right-clicking a blank spot in its program window. It doesn't use a traditional menu system, like most application windows.

If you want a lightweight command-line file manager, install Midnight Commander (search for and install the mc package using Synaptic). Then type mc at the prompt to start the program. Once it's started, hit Alt+1, use the cursor keys to highlight Contents, and then hit Enter. This will display the help file explaining how to use the program. If you ever used Norton Commander back in the days of DOS, you'll find Midnight Commander very familiar, because it's modeled on that product.

To go back to using Nautilus after installing Thunar (or Konqueror/ Dolphin/Rox-Filer), just edit the nautilus-folder-handler.desktop file again, and change the line you edited to read Exec=nautilus --no-desktop %U. Then save the file, and log out and back in again.

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7 Play MP3/Ogg Files at the Command Line

So, you've tweaked Ubuntu into a state of disrepair. Any hope of a GUI is a pipe dream, at least for the moment. While you hack away fixing things, wouldn't it be nice to have some music to console you at the console?

Just switch to an unused virtual console, log in, and type sudo apt-get install vlc. VLC is the GUI media playback application mentioned in Tip 230, on page 249 of *Ubuntu Kung Fu*, but it can also run with a text-mode interface—just start it with the -I ncurses command option (note that's a capital *I*, not *L*). For example, to play back filename.mp3, I would type vlc -I ncurses filename.mp3. Multiple files can be specified one after the other, thus creating a playlist, or a wildcard can be used to play

back all files in a particular folder (that is, vlc -I ncurses ~/Music/*.mp3). Use [a] and [z] to alter the volume.

Once the music starts playing, switch back to the original console to continue enacting repairs (and maybe see Tip 30, on page 72 of *Ubuntu Kung Fu*, which explains how to install a text-mode web browser; very useful for looking-up solutions!). See Tip 75, on page 116 of *Ubuntu Kung Fu*, to see how to alter the master volume of the audio system at the command-line—this might be necessary if playback is too quiet.

8	Use Desktop Widgets

☐

The fashion amongst desktop operating systems is to utilize desktop widgets. These are small programs that float on the desktop and provide specific but useful functionality, such as telling the time or showing the weather. Mac OS X has included them since version 10.4 in the form of its Dashboard component, while Windows Vista introduced them upon release in the form of the desktop sidebar.

As you might expect, Ubuntu offers its own variation on this theme in the form of Screenlets. This needs Ubuntu's desktop effects to work— for more information, see Tip 73, on page 113 of *Ubuntu Kung Fu*.

To install Screenlets, use Synaptic to search for and install the screen-lets package. While Synaptic is open, also search for and install the compizconfig-settings-manager package. This is needed because, before running Screenlets, you first need to enable the "widget layer" visual effect. To do this once the software is installed, click System → Prefer-ences → Advanced Desktop Effects Settings, and in the program win-dow that appears, put a check in the box alongside Widget Layer, under the Desktop heading.

Then close that program, and start Screenlets by clicking System → Preferences → Screenlets. Note that Screenlets will automatically start each time you log in, and when you click the icon in the notification area, the Screenlets configuration panel will open.

When the program first starts, you might see a warning about how there is "no existing autostart directory." Click the Yes button to cre-ate one. After this, to add a Screenlet to your desktop, just select it in the list, check the Auto start on login box at the bottom right of the

Figure 1.2: Adding Screenlets to the desktop (see Tip 8)

program window, and then click the Launch/Add button. The Screenlet will be placed somewhere on your screen (probably the top left), but you can then drag it to wherever you want, as shown in Figure 1.2. Right-clicking each Screenlet will let you configure it.

Instead of having Screenlets floating on the desktop (or in addition to), you can create a setup like Mac OS X, where the widgets are on a floating layer that appears whenever you hit F9. To add a widget to the floating layer, add it to the desktop as described earlier, and then right-click it and select Window → Widget.

Many more Screenlets are available in addition to those provided out of the box. To download them, visit http://www.screenlets.org. Look for the Downloads heading, and click an entry beneath the Third-party Screenlets link. To install a new screenlet, download it to your desktop (don't unpack it if it's an archive!), open the Screenlets configuration program (System → Preferences → Screenlets, or just click the Screenlets notification area icon), and click the Install Screenlet button. Then select the download using the file browser, and select it from the list of Screenlets in the main program window once it's been added to the main collection. After this, add it to the desktop as described earlier. You can delete the file you downloaded once it's installed.

More more tips on adding desktop bling, see Tip 21, on page 63 of *Ubuntu Kung Fu*; Tip 78, on page 120; Tip 145, on page 172; Tip 198, on page 214; Tip 73, on page 113; Tip 273, on the facing page; and Tip 288, on page 312.

9 View Images Without a Graphical Environment

The issue of how to view graphics at the command line is a thorny one. Theoretically, should you find yourself without a GUI, it should be possible to install and use simple image-viewing programs that use the *framebuffer*. This is where the image data is written straight into the memory of the graphics card, without any need for complexities such as actual graphics drivers. However, Ubuntu prohibits the use of the framebuffer because it can cause problems with the hibernation power-saving mode.

A solution, one that has a measure of entertainment value, is to convert the image to lots of letters and numbers. When viewed from a distance, or through squinted eyes, the contents of the photo can just about be made out. It's far from ideal, for sure, but can be surprisingly useful and is often entertaining to boot.

Start by using Synaptic to install the aview and imagemagick packages. Then switch to a virtual console, log in, and type the following:

```
$ asciiview filename.jpg
```

Obviously, you should replace filename.jpg with the name of your file. The file can be any image format.

You can zoom into the picture using the plus and minus keys and move around it using the cursor keys. A good tip is that repeatedly zooming in and out somehow causes the image to be easier to comprehend. When you've finished, hit q.

10   See the Size of Files/Folders on the Desktop   ☐

Wouldn't it be handy to have the size of files written underneath their names on the desktop? No problem! Open a Nautilus window, and click Edit → Preferences. Then click the Display tab, and change the three drop-down lists under Icon Captions to read Size, Date Modified, and Type (or, indeed, the latter two can be anything you want from the drop-down list provided the first drop-down list reads Size). The changes will take effect immediately. Unfortunately, the side effect of this is that all file icons will now have their size listed under them in Nautilus windows. Then again, this is no bad thing.

For more desktop organization tricks, see Tip 103, on page 138 of *Ubuntu Kung Fu*, which describes how to stop the icons being aligned, and Tip 172, on page 193, which explains how to add the familiar desktop icons for system functions, such as Trash, or My Computer.

11   Make Files and Folders Entirely Private   ☐

Ubuntu is set up so that if one user creates a file, all other users have read-only access to it (in other words, file permissions of -rw-r--r-- and folder permissions of drwxr-xr-x). To make any files or folders you create accessible only by yourself (-rw—— and drwx-—-), open your .profile file in Gedit (gedit ~/.profile), and remove the hash alongside umask=022. Then change the entire line to read umask=077 (that's *zero*, seven, seven). Save the file, and log out and back in again.

You can also alter the permissions on folders and files you've already created. To protect filename.doc, for example, you would type chmod go-rw filename.doc. This will remove (-) read and write (rw) permissions from members of your group (g) and others not in your group (o). To change permissions on a folder and everything in it, you could type something like chmod -R go-rwx Documents/, which will change your Documents folder—and all files/folders within it—so that you can access only them.

Be sure to resist the temptation to change permissions on your entire /home folder. Various pieces of software store configuration files there and sometimes run with unique ownerships, so changing permissions could cause real problems. Many folders holding personal information, such as your Firefox browsing history, already have restrictive permissions set so that only you can access them.

Should you want to return to the old file ownership rules, simply edit your .profile file once again, and reinsert the hash (#) before the umask line. Then save the file, and log out and back in again.

12 Ensure Ubuntu Always Knows the Time ☐

Several of my computers sometimes mysteriously lose minutes when switched off so that the time they display slowly becomes more and more behind. Luckily, I have Ubuntu installed. This can periodically synchronize with the main Ubuntu time server and thus never let the computers get out of step with the rest of the world.

To set this up, use Synaptic to install the ntp package. Once the package is installed, restart your computer. Configuration is automatic.

If, after rebooting, you find that the time display is still wrong, it's likely that you have Ubuntu set up for the wrong time zone. To fix this, right-click the time/date display at the top right of the Ubuntu desktop, and select Adjust date and time. Then click the Unlock button in the window that appears. Then click the Time Zone button, and click the nearest city to you on the map that appears. Once done, click Close. The changes will take effect immediately.

13 Repair Windows from Within Ubuntu ☐

If Windows is refusing to boot, for whatever reason, you can try repairing the file system from within Ubuntu. Use Synaptic to search for

the ntfsprogs package. Once it's installed, unmount your Windows partition (if it's mounted), and type sudo ntfsfix /dev/sda1 to check and fix the partition (assuming your Windows partition is /dev/sda1—likely if you installed Ubuntu in a dual-boot configuration on a computer already running Windows).

This tip is also useful if you see the "Cannot mount volume" error when attempting to access your Windows partition from within Ubuntu.

To learn how to repair the Ubuntu file system, see Tip 222, on page 236 of *Ubuntu Kung Fu.*

14 Dump the Text on a Virtual Console to a File

If you're trying to fix a problem, you might want to capture the output of a command for reproduction on a website forum, along with the command you typed to get the results. If you're working in a terminal window, you can cut and paste, but what if you're working at a virtual console? If you simply want to capture the result of a command, just redirect the output:

```
$ ls > output.txt 2>&1
```

This will send both the output and error output (if any) of the ls command to output.txt. If you want to capture the command you typed and any other command-line detritus (including output), use the screendump command. The following will send everything currently on the current screen (command-line prompts included) to a text file called output.txt:

```
$ sudo screendump > output.txt
```

The command has to be issued as root because of permission issues, but the resulting file will be owned by you.

For more virtual console tricks and tips, see Tip 18, on page 61 of *Ubuntu Kung Fu*; Tip 178, on page 198; Tip 192, on page 210; Tip 197, on page 214; Tip 206, on page 219; and Tip 232, on page 253.

| 15 | Drag and Drop Files onto the Terminal Window | ☐ |

If you are using a terminal command on a file and cannot bear to type the entire path to the file, just drag and drop it onto the terminal window using the mouse. The filename and path will then be auto-completed for you.

For more cool terminal tricks and tips, see Tip 25, on page 67 of *Ubuntu Kung Fu*; Tip 235, on page 255; and Tip 246, on page 264.

| 16 | Record Your Desktop | ☐ |

Have you ever been chatting on a website forum and been totally unable to describe an action you've performed on Ubuntu? "Click the top bar—the gray thing at the top, you know. Then drag the icon. The blue icon. Drag it to the desktop…"

It can be hard describing in words what are simple procedures with a mouse. A solution is at hand, however. The Byzanz application lets you record your desktop, a window, or a defined area of the screen as a movie. The resulting file is an animated .gif and so is viewable in almost any web browser made over the past ten years. You could attach it to a forum posting if you're asking for help, for example. The only downside is that the resulting movie file can be large, depending on the area you've defined and the length of the movie. Full desktop recordings can easily come in at double-digit megabytes, in fact.

The package can be installed using Synaptic—search for byzanz. Once installed, right-click a blank spot on the top panel, and select Add to panel. Then select Desktop Recorder from the list. Note that Byzanz won't work correctly if desktop visual effects are enabled—to disable them, click System → Preferences → Appearance, and then click the Visual Effects tab. Then click the None radio button. When you've finished recording using Byzanz, repeat, and click the Normal, Extra, or Custom button, depending on your preference (you won't see the Custom option

unless you've installed Simple Compiz Settings Manager, as described in Tip 74 on page 120 of *Ubuntu Kung Fu*.

Once the application's icon appears on the panel, click the small down arrow next to it to select to record the desktop, an area of it, or a particular window. When selecting to record an area of the desktop, the screen will turn black, and you should click and drag to define where you want to record (the screen turning black is an unfortunate bug, and you'll have to try to remember where on the desktop it is you want to record). If you select to record a program window, the mouse will turn to a crosshairs—just click the window you want to record.

After this, recording will start. The Byzanz icon will turn to a red circle to indicate this. When you've finished, click the red circle to stop recording. You'll then be prompted to save the movie file. Click Cancel to discard the movie.

Bear in mind that resulting movie .gif files will not play in Ubuntu's default image viewer, which will open when you double-click the file. You'll see nothing but the first frame. Instead, you must play them in Firefox to see the full animation. To do this, right-click the file, and select Open With → Open with "Firefox Web Browser."

17   Stop the Cursor from Blinking   ☐

I have nothing against a blinking cursor myself, but some find it distracting. To stop Ubuntu's cursor from blinking, open gconf-editor, navigate to /desktop/gnome/interface, and remove the check from cursor_blink. The log out and back in again. Note that Evolution appears to ignore this setting, but most other applications will now have a still cursor.

Alternatively, by changing the value in cursor_blink_time, you can simply make it blink more slowly. A value of 5000 equates to five seconds—each unit is 1ms. Be aware that a setting such as 5000 means the cursor will be visible for five seconds at a time and then invisible for the same length of time.

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