



# Getting Started with Ubuntu

Created by the Ubuntu Manual Team

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# Vorwort

# Herzlich Willkommen

Herzlich Wilkommen zum Ubuntu-Handbuch.

Dieses Handbuch wurde als Einführung entwickelt, um neuen Benutzern bei der Benutzung von Ubuntu einen Leitfaden an die Hand zu geben. Unsere Zielsetzung ist es, die Grundlagen von Ubuntu abzudecken – wie zum Beispiel die Installation, die Einrichtung der Arbeitsoberfläche und beliebter Anwendungen – aber auch eine Einführung in Linux und die Macht von Open-Source zu geben. Das Handbuch wurde darauf ausgelegt, einfach zu folgend zu sein, mit Schritt-für-Schritt-Anleitungen und erläuternden Diagrammen – um Ihnen zu erlauben, das gesamte Potential Ihres neuen Ubuntu-Systems zu entdecken, selbst wenn Sie ein Computerneuling sind, oder zum ersten Mal von einem anderen Betriebssystem wechseln.

Viele Menschen haben ihre Freizeit in dieses Projekt investiert. Das Handbuch befindet sich noch in der Entstehungsphase und wird sich immer weiter entwickeln. Obwohl wir versuchen sicherzustellen, dass die Anleitungen nicht auf eine bestimmte Version zugeschnitten sind, ist es unvermeidbar, dass gewisse Dinge sich mit der Zeit in Ubuntu verändern. Jedesmal wenn eine neue Ubuntu-Version erscheint, wird das Handbuch einer Revision unterzogen und entsprechende Änderungen eingepflegt. Zum Zeitpunkt der Entstehung dieser Version ist die aktuelle Ubuntu-Version 10.04 LTS.

Wenn Sie irgendwelche Fehler oder fehlende Inhalte bemerken, seien Sie so frei und kontaktieren Sie uns. Wir versuchen alles in unserer Macht stehende, um das Handbuch aktuell, informativ und fehlerfrei zu halten. Unsere Kontaktdaten finden Sie weiter unten.

# Was dieses Handbuch nicht ist

Dieses Handbuch soll kein umfassendes Ubuntu-Unterrichtsbuch sein. Es stellt mehr eine Schnellstart-Anleitung dar, welche Ihnen hoffentlich dazu verhilft, schnell und einfach das zu tun, was Sie wollen, ohne sich in technischen Details verzetteln zu müssen.

If you are after more detail, there are excellent resources available from help.ubuntu.com, produced by the Ubuntu Docs Team. The in-built system documentation in Ubuntu is also very useful for accessing help on specific topics. If something isn't covered here, chances are you will find the information you are looking for in one of those locations.

# **Contact details**

The Ubuntu Manual Team

Launchpad Team page https://launchpad.net/~ubuntu-manual

Mailing List ubuntu-manual@lists.launchpad.net

More information on the online docs and the system docs can be found in Kapitel 10: Learning more about Linux. Project Wiki Page https://wiki.ubuntu.com/ubuntu-manual

# Ubuntu philosophy

Der Ausdruck »Ubuntu« ist ein klassisches afrikanisches Konzept, dass von den Bantu-Sprachen aus Südafrika stammt. Es kann als Weg beschrieben werden, sich mit anderen zu verbinden – in einer Gemeinschaft zu leben, in der das eigene Handeln die gesamte Menschheit beeinflusst. Ubuntu wie wir es kennen, ist mehr als nur ein Betriebssystem: Es ist eine Gemeinschaft von Menschen, die sich zusammengefunden haben, um gemeinsam Teil eines internationalen Softwareprojekts zu sein, dessen Ziel es ist, die bestmögliche Benutzererfahrung und den bestmöglichen Funktionsumfang eines Betriebssystems zu schaffen, der heute verfügbar ist.

# The Ubuntu promise

- Ubuntu verfügt über vollständige kommerzielle Unterstützung von Canonical und Hunderten von Firmen weltweit.
- Ubuntu bietet die besten Übersetzungen und Barrierefreiheitsfunktionen, welche die Freie Software-Gemeinde zu bieten hat.
- Die Kernanwendungen von Ubuntu sind alle frei und Open-Source. Wir möchten, dass Sie freie und Open-Source-Software benutzen, verbessern und weitergeben.

# A brief history of Ubuntu

Ubuntu wurde 2004 von Mark Shuttleworth, einem erfolgreichem süd-afrikanischem Unternehmer und seiner Firma, **Canonical** ins Leben gerufen. Shuttleworth erkannte die Macht von Linux und Open-Source, aber ebenso ihre Schwächen, die sie vom Durchschnittsbenutzer fern hielten.

Shuttleworth setzte klare Ziele um die Schwächen zu beseitigen und ein einfach zu benutzendes, vollkommen freies und von jedem zu verwendende Betriebssystem zu erschaffen. Mit dem Betriebssystem Debian als Codebasis begann Shuttleworth, Ubuntu zu entwickeln. Auf seine eigenen finanziellen Mittel zurückgreifend wurden kostenlose Installations-CDs gepresst und weltweit ausgeliefert, ohne Kosten für den Endnutzer. Ubuntu verteilte sich schnell und die Größe der Gemeinschaft wuchs rasend, so dass es schnell zu der beliebtesten Linux-Distribution wurde.

Now with more people working on the project than ever before, Ubuntu has seen continual improvement to it's core features and hardware support, and has also gained the attention of large organizations worldwide. For example in (year????), Dell began a collaboration with Canonical to sell computers with Ubuntu pre-installed. Additionally in 2005, the French

Canonical, das finanziell unterstützende Unternehmen, betreibt die Unterstützung für Betreuung des Ubuntu-Kerns. Es hat weltweit über 200 bezahlte Mitarbeiter, welche sicherstellen, dass die Basis des Betriebssystems stabil ist und die von Freiwilligen geleistete Arbeit überprüft. Um mehr über Canonical zu erfahren, gehen Sie auf http://www.canonical.com (englisch) Police began to transition their entire computer system to Ubuntu, a process which has reportedly saved them millions of Euro in Windows licensing fees.

By the year 2012, the French Police expect that all of their computers will be running Ubuntu. Canonical profits from this arrangement by providing technical support and custombuilt software.

Während große Unternehmen es häufig als nützlich empfinden, für Unterstützungsdienste zu bezahlen, hat Shuttleworth versprochen, dass Ubuntu-Desktopsystem immer kostenlos bereitzustellen. Im Jahre 2010 ist Ubuntu auf annähernd 2% aller Rechner weltweit installiert. Diese Zahl mag klein erscheinen, entspricht aber Millionen von Benutzern weltweit – mit jährlichem Wachstum.

### Linux

Ubuntu is built on the foundation of Linux, and is just one of many different Linux 'distributions'. Linux is a type of operating system, and is itself a member of the Unix family, one of the oldest types of operating systems dating back to the 1970s. Originating long before Microsoft Windows, the Unix operating systems have provided reliability and security in professional applications for almost half a century. Many servers around the world that hold information for popular websites, for example, Facebook and Google run some variant of a Unix system.

Linux was designed from the ground up with security and hardware compatibility in mind, and is currently the most popular Unix-based operating system. Initially, Linux was entirely command line based. Early Graphical User Interfaces (GUIs) began to emerge in the late 1980s, but they were difficult to configure and clunky at best, meaning that only seasoned computer programmers knew how to use them. In the past decade however, user-friendly graphical desktop environments have come a long way. Ubuntu uses GNOME, one of the more popular desktop environments.

#### MISSING SCREENSHOT

Screenshot of the entire default GNOME desktop and nautilus

# Ist Ubuntu das Richtige für Sie?

Ubuntu, and Linux in general, is very different than Windows, but users coming from Mac OS X may see some similarities due to the fact both these operating systems are built on UNIX. Before you decide whether or not Ubuntu is right for you, we suggest taking the following into account:

Ubuntu ist gemeinschaftsbasiert – es lebt von der Gemeinschaft, wurde von der Gemeinschaft entwickelt und von der Gemeinschaft betreut. Aus diesem Grund werden Sie in Ihrem PC-Laden um die Ecke keine Unterstützung erhalten – die Angestellten werden sehr wahrscheinlich noch nicht einmal was von Ubuntu gehört haben. Wenn etwas nicht funktioniert, werden Sie sich eventuell selber drum kümmern müssen! Glücklicherweise ist die

For information on Ubuntu Server Edition, and how you can use it in your company, visit http://www.ubuntu.com/ products/whatisubuntu/ serveredition/features

See Kapitel 2: Über Ihre Arbeitsfläche to learn more about GNOME and other desktop environments. Gemeinschaft da, die Ihnen hilft. Es gibt eine große Zahl von Artikeln, Leitfäden, Handbüchern und Benutzer in verschiedenen Internetforen, die bereit sind, Ubuntu-Neulingen zu helfen – Dorthin sollten Sie sich wenden, wenn etwas nicht läuft.

- Windows or Mac applications won't run on Ubuntu. For the vast majority of applications that most people use, there are suitable free alternatives available in Ubuntu. The rest are generally professional applications (such as the Adobe Creative suite) if you absolutely cannot live without the latest Adobe software, then Ubuntu may not be for you.
- Spieleentwickler entwickeln ihre Spiele normalerweise für den größten Markt, wo das meiste Geld zu verdienen ist. Da Ubuntu nicht so weit verbreitet ist wie Windows oder Mac, entwickeln die wenigsten Spieleentwickler für Ubuntu, da für den Aufwand zu wenig Profit zu erwarten ist. Wenn Sie ein leidenschaftlicher Spieler sind, könnte Ubuntu nichts für Sie sein. Wenn Sie gerne ältere Spiele spielen, können Sie bestimmte beliebte Spiele unter einem Windows-Emulator namens Wine (siehe Kapitel XX) betreiben. Natürlich gibt es auch speziell für Ubuntu entwickelte Spiele, welche einfach über das Software-Center zu installieren sind.

You may want to consider dual-booting, which allows you to run Ubuntu side-by-side with another operating system. See Kapitel 1: Installation.

# Teil I

# Beginnen Sie hier

# 1 Installation

# Ubuntu beziehen

Ubuntu ist in vielen Arten und Formen verfügbar, was es Ihnen erlaubt, die für Sie am geeignetste Version auszuwählen. Alle Linux-Distributionen sind, theoretisch, gleich — Nur mit unterschiedlichen Kerneln und Paketen vorinstalliert.

Server- und Desktopeditionen benötigen unterschiedliche Programme für ihre Zwecke. Zum Beispiel benötigt ein Server keinen Mediaplayer, im Gegensatz zu einem Desktopsystem. Der Benutzer könnte sein System selbstständig dementsprechend einrichten, was aber Zeit und Mühe kosten würde — deswegen liefert Ubuntu verschiedene Versionen mit entsprechend vorinstallierten Programmen aus, um Ihnen das Leben einfacher zu machen.

# Ubuntu herunterladen

Wenn Sie Ubuntu herunterladen möchten, haben Sie dazu verschiedene Möglichkeiten. Die einfachste Möglichkeit ist es, das CD-Abbild direkt von <a href="http://www.ubuntu.com">http://www.ubuntu.com</a> (englisch) herunterzuladen. Wenn gerade eine neue Version erschienen ist, ist es schneller Ubuntu über Torrents herunterzuladen — Die Server werden verstopft, wenn nach der Veröffentlichung jeder sein System aktualisiert.

After you've downloaded the CD image, all you have to do is burn it to a CD.

# Eine kostenlose CD bestellen

You can order a free CD from Canonical if the above method seems too hard, or you have limited bandwidth or a slow connection. There is no shipping cost or charge to order a CD. Simply visit www.ubuntu.com and choose to get a free CD — you will have to create an account but this is very simple and not time consuming at all. The CD usually takes about four weeks to ship, so if you need Ubuntu in a hurry, downloading it and burning it to a disc would be the best method.

# Ubuntu installieren

Ubuntu ist einfach zu installieren. Die Installation verläuft sehr linear und schnell, so dass die meisten Menschen keinerlei Probleme damit haben sollten, Ihr System aufzusetzen. Obwohl es sehr einfach zu installieren ist, haben wir eine Schritt-für-Schritt-Anleitung erstellt, um sicher zu gehen, das nichts schiefgeht! Wie empfehlen allerdings, vor der Installation die Live-CD auszuprobieren, um zu sehen, ob es Ihnen gefällt und ob Ubuntu problemlos mit Ihrer Hardware zusammen arbeitet. Ein **Kernel** ist der zentrale Bestandteil eines Betriebssystems, verantwortlich für die Ausführung von Programmen.

In Kapitel 10 erfahren Sie mehr über die verschiedenen Distributionen

To find out how to burn a CD on your computer, refer to your operating system or manufacturer help. You can also find help here: https://help.ubuntu.com/ community/ BurningIsoHowto

# Die Live-CD

Ubuntu besitzt eine exzellente Funktion, welche es Ihnen erlaubt, es vor der Installation auszuprobieren, auch wenn Ihnen dabei nicht alles zur Verfügung steht. Es läuft direkt von der CD im Arbeitsspeicher Ihres Rechners, wird sich dabei aber etwas zäh anfühlen (da die CD-Lesegeschwindigkeit langsamer als bei Festplatten ist und eine Menge an Arbeitsspeicher benötigt wird), aber es gibt Ihnen bereits ein Gefühl dafür, wie Ubuntu funktioniert. Die Live-CD erlaubt es Ihnen, alle vorinstallierten Anwendungen zu testen, mit den Vorgabeeinstellungen zu experimentieren und im Internet zu surfen.

Das ist nicht nur praktisch, um einen Eindruck vom Betriebssystem zu erhalten, sondern auch um zu testen, ob es problemlos mit Ihrer Computerhardware funktioniert.

Um von der Live-CD zu starten, legen Sie die Ubuntu-CD in Ihr CD-/DVD-Laufwerk und starten Sie den Rechner neu. Die Startreihenfolge wird normalerweise im BIOS festgelegt, oder Ihr Rechner gibt Ihnen die Möglichkeit, beim Hochfahren per Tastenkombination von der CD zu starten. Ziehen Sie Ihr Benutzerhandbuch für weitere Informationen zu Rate.

Sie werden ein Auswahlmenü ähnlich dem folgenden sehen:

### MISSING SCREENSHOT

#### Installation CD boot menu

Wählen Sie die Option "Ubuntu ausprobieren, ohne Ihren Rechner zu verändern" und drücken Sie die Enter-Taste auf Ihrer Tastatur, um von der Live-CD zu starten.

#### Wubi verwenden

Wubi steht für Windows-Ubuntu-Installer und erlaubt es Ihnen, Ubuntu unter Windows zu installieren. Nach der Installation erscheint Ubuntu wie jede andere Anwendung unter »Programme Entfernen/Hinzufügen«. Wenn Sie Ubuntu installieren, legt es eine gewisse Zahl an großen Dateien (die sogenannten Loop-Dateien) an, für welche Sie die Größe angeben können und in welchen es alle Dateien von Ubuntu installiert. Es fügt ebenso einen Eintrag zum Windows-Bootloader hinzu, so dass Sie während des Hochfahrens wählen können, ob Sie Ubuntu oder Windows starten möchten.

Das ist der einfachste Weg, ein sogenanntes Dual-Boot-System einzurichten und Ubuntu direkt auf Ihrem Rechner auszuprobieren — Und es, falls es Ihnen nicht gefällt, einfach wieder zu deinstallieren. Es wird Ihre Windowsinstallation in keinster Weise beeinflussen.

Es gibt allerdings einige Dinge, die Sie dabei im Hinterkopf behalten müssen:

- Wenn Sie Ubuntu mit Wubi installiert haben und feststellen, dass es Ihnen gefällt und Sie gerne mehr Festplattenplatz dafür hätten, ist es sehr schwierig den Festplattenplatz zu erhöhen, ohne Ubuntu komplett neu installieren zu müssen.
- Die Lese-/Schreibgeschwindigkeit wird nicht so schnell sein wie wenn Sie Ubuntu direkt auf Ihrer Festplatte an Stelle einer virtuellen Festplatte installiert h\u00e4tten. Die Einbu\u00dfen werden allerdings nicht gro\u00df ins Gewicht fallen.

# Installing Ubuntu to your hard drive

Um Ubuntu direkt auf Ihrer Festplatte zu installieren, benötigen Sie mindestens 3 GB freien Festplattenspeichers, um das Basissystem zu installieren. Wir empfehlen 10 GB um ein wenig Platz für zusätzliche Programme und Ihre eigenen Daten zu haben. Sie können Ubuntu entweder über Windows drüber installieren und Windows damit löschen, oder Sie installieren es neben Windows als Dual-Boot-System. Sie können sich während der Installation zwischen den beiden Möglichkeiten entscheiden.

#### **Recommended system requirements:**

Ubuntu sollte hinreichend gut auf Rechnern mit den folgenden minimalen Hardwareanforderungen laufen.

- 700 MHz x86-Prozessor
- 384 MB Arbeitsspeicher (RAM)
- 8 GB freien Festplattenspeicher
- Eine Grafikkarte, die mindestens eine Auflösung von 1024x768 darstellen kann
- Soundkarte
- Eine Netzwerk- oder Internetverbindung

#### First steps of installation

Um zu starten, legen Sie die Ubuntu-CD in Ihr CD-/DVD-Laufwerk und starten Sie Ihren Rechner von der CD.

Choose your language with the arrow keys, and press enter to select one.

### MISSING SCREENSHOT

#### Language options

Press the down arrow so that Install Ubuntu is highlighted, then press enter on the keyboard.

#### MISSING SCREENSHOT

#### Boot CD main menu with Install Ubuntu highlighted

Warten Sie kurz einige Sekunden, währen die CD in den Arbeitsspeicher geladen wird. Wählen Sie Ihre Landessprache und klicken Sie **Weiter** um fortzufahren. Ubuntu wird auch auf Rechner mit weniger als den geforderten Ansprüchen laufen, aber Sie werden die **Alternate-CD** zur Installation verwenden müssen.

Alle 64-bit (x86-64)-Rechner sollten in der Lage sein, mit Ubuntu zu laufen. Verwenden Sie die 64-bit-Installations-CD für eine auf 64-bit optimierte Installation.

You can choose **Check disc** for defects to make sure no errors were encountered when burning your CD. You can also test your memory by choosing **Test memory**.

installation 5

#### MISSING SCREENSHOT

Where are you? Screen

Tell Ubuntu where you are located by clicking on your location. This will set the system clock for you. You can also use the **drop down list** at the bottom of the screen. Click **forward** to move on.

### MISSING SCREENSHOT

First installation screen

In this screen, you need to tell Ubuntu what keyboard you are using. For most people, the default option should be satisfactory. Click **forward** to continue once you have tested your keyboard.

#### MISSING SCREENSHOT

Keyboard Screen

#### **Guided partitioning**

Dieser Bildschirm erlaubt es Ihnen auszuwählen, wo Sie Ubuntu installieren möchten. Wenn Sie Ihr bestehendes Betriebssystem überschreiben möchten oder eine leere Festplatte benutzen und den Installer automatisch die Partitionierung Ihrer Festplatte festlegen lassen möchten, wählen Sie die zweite Option **Gesamte Festplatte verwenden**.

#### MISSING SCREENSHOT

Partitioning screen

If you already have another Operating System installed on your hard drive, and want to install Ubuntu alongside it, choose Install them side by side, choosing between them each startup.

#### Manuelle Partitionierung

Diese Option ist für erfahrene Benutzer, welche spezielle Partitionen erstellen oder ein anderes als das vorgegebene Dateiformat verwenden möchten. Sie kann aber auch verwendet werden, um eine separate Home-Partition zu erstellen, was sehr nützlich sein kann, wenn Sie den Rechner eines Tages neu installieren möchten.

#### Wer sind Sie?

#### MISSING SCREENSHOT

Who are you? Screen

Hier müssen Sie folgende Angaben machen:

- Ihren echten Namen
- Ihren gewünschten Benutzernamen
- Ihr gewünschtes Passwort
- Wie Sie Ihren Rechner nennen wollen
- Und wie Sie sich bei Ubuntu anmelden wollen.

Die ersten drei Schritte sind selbsterklärend. Wählen Sie einen einfachen Benutzernamen, oftmals Ihren Vornamen, komplett klein geschrieben. Ihr Passwort sollte sicher und schwer zu erraten sein.

Der Name Ihres Rechners kann sein was immer sie möchten, auch wenn die meisten Menschen etwas wie "Hans-Desktop" oder "Hans-Laptop" wählen. Der Name wird benötigt, um Ihren Rechner im Netzwerk von anderen zu unterscheiden.

Sie haben die Wahl, sich auf drei verschiedene Art und Weisen anzumelden:

#### Automatische Anmeldung

Ubuntu wird Sie anmelden, sobald Sie Ihren Rechner starten. Das bedeutet, dass Sie kein Passwort eingeben müssen - aus Sicherheitsgründen nicht empfohlen.

#### Passwort wird zum Anmelden benötigt

Das ist die empfohlene Option - alles was Sie tun müssen, wenn Sie Ihren Rechner starten, ist Ihr Passwort einzugeben. Das verhindert unbefugten Zugriff zu Ihrem Rechner.

#### Passwort wird zum Anmelden und Entschlüsseln des Heimverzeichnisses benötigt

Ihr Heimverzeichnis ist das Verzeichnis, in dem alle Ihre Daten gespeichert werden. Wenn Sie diese Option wählen, wird Ubuntu Ihr Heimverzeichnis automatisch verschlüsseln, so dass man nicht darauf zugreifen kann, bis Sie Ihr Passwort eingegeben haben. Selbst wenn jemand physischen Zugriff auf Ihre Festplatte hat, kann er nicht auf Ihre Daten zugreifen, ohne Ihr Passwort eingegeben zu haben. Das ist ziemlich sicher und wird empfohlen.

#### Bestätigen Sie Ihre Angaben und starten Sie die Installation

Nichts was Sie bisher angegeben haben wurde bis hierhin auf die Festplatte geschrieben, stellen Sie sicher dass alle Ihre Angaben korrekt sind und klicken Sie **Install** um den Installationsprozess zu starten.

### MISSING SCREENSHOT

**Confirmation Screen** 

Ubuntu will now install, and, as it does so, you will be presented with a slideshow that gives you an introduction to some of the default applications included with Ubuntu.

#### MISSING SCREENSHOT

#### First slide in the slideshow

After approximately twenty minutes, the installation will complete and you will be able to click **Restart Now** to restart your computer and boot into Ubuntu. The CD will be ejected, so remove it from your CD drive and press **Enter** to continue.

# MISSING SCREENSHOT

Screenshot of "restart now" dialog box

After the splash screen, you will see the login window:

# MISSING SCREENSHOT

Screenshot of the GDM login

Klicken Sie auf Ihren Benutzernamen und geben Sie Ihr Passwort ein und drücken Sie anschließend Enter oder klicken Sie auf Anmelden um sich bei Ubuntu anzumelden.

# 2 Über Ihre Arbeitsfläche

# The GNOME Environment

GNOME (abbreviation of GNU Network Object Model Environment) is a desktop environment (DE). The GNOME desktop environment is the default environment used in Ubuntu. Most of the desktop you see in front of you will be part of GNOME. Although the GNOME desktop environment is highly customizable (as is true with many of Ubuntu's features), we will deal with the default desktop, as described below.

# Understanding the Desktop

# The Desktop

Much like Windows or Mac OS, Ubuntu has a desktop screen from which everything else orginiates. By default, the desktop will have panels at the top and bottom of the screen. The screen itself will have a wallpaper that is part of the default Ubuntu theme, known as the Human Theme. The desktop is highly customizable. You can move the panels to the sides of the screen, or remove them altogether and replace them with a dock similar to that of Mac OS X. You can change the wallpaper, and even place program launchers or file shortcut icons on the desktop. For now, we will look at the default screen and the options that it offers. As we move forward in this chapter, you will learn how to make some basic modifications to the desktop.

# The Top Panel

As previously mentioned, the default Ubuntu desktop has panels at the top and bottom of the screen. We will briefly look at the features on the top panel. Starting from the left, you will see three menu headings: Applications, Places, and System. After that, you will see two program icons; the Firefox web browser launcher, and the Ubuntu Help launcher. To the right of the panel you'll find the Notification Area, which is similar to the system tray in Windows. To the right of that is a menu with the name you entered during installation. This menu interfaces with the Empathy IM client, which is installed by default in Ubuntu 10.04. Finally, on the far right, is the power button icon. When you click on it, a menu drops down that offers options for locking down your computer, logging yourself out, restarting, or shutting it down completely.

The top panel is customizable. Just right-click on any open area of the panel to access the options menu. You can add applets to the panel for reference, information, or fun. You can also add program launchers to the top panel by opening the Applications menu. Once you find the program, drag it to an open space on the panel. In this way, the panel also serves as

an applications dock. You can also adjust panel properties, such as orientation of the panel on the screen (top, bottom, left, right), panel size, and panel color and transparency.

#### The Notification Area

Just as Windows has the System Tray, Ubuntu has the Notification Area. The items that you'll find there include the volume adjustment, network indicator, Bluetooth indicator (if your computer has Bluetooth capability), new mail notification applet, and the date and time. Some programs will install an icon in the Notification Area when you first open them, such as Tomboy Notes, and other programs will put an icon there when modifications are made in the program. For example, if you adjust the settings in Open Office so that it will load in the background (for faster startup when you need to look at a document, etc.), an Open Office icon will appear in the Notification Area. Right-clicking any icon in the Notification Area will bring up a menu with options available. For example, right-clicking the volume icon will allow you to mute the speakers or access the Sound Preferences window, where you can not only adjust volume, but you can choose sound themes and check sound card and microphone settings. Features are also available when you left-click icons in the Notification Area. To adjust the volume, just click on the volume adjustment icon and the volume slider will appear. When you click on the date and time, a calendar drops down. If you use the Evolution mail client, you can click on a date on the calendar and it will open up your Evolution calendar on the date you clicked. Below the calendar is the Location box. Click the + sign to show the world calendar. To enter your location, click the Edit button. In the window that opens up, click the Add button. Type your location in the box. If you live in a major city, it may be on the list already. If your location isn't in the list, you can enter the latitude and longitude for your location (you can search on Google if you don't already have this information). Don't forget to select the time zone for your location. If your location is on the list, you will be able to display weather data for it below the calendar.

# The Bottom Panel

The bottom panel is where your open programs minimize to, much like the taskbar in Windows or the bottom portion of the OS X Dock. On the far left of the panel is the Show Desktop icon. When clicked, all programs on the screen will minimize and you will see your desktop. Click it again to re-open any windows you had open. On the far right side of the panel, you'll find the workplace switcher. By default, it is set for two workspaces (virtual screens, if you will). To switch workspaces, just click on the portion of the switcher that isn't highlighted. This makes it possible to, say, have a web browser open in one workspace, and a text document you're working on in the other workspace, thus reducing clutter on your screen. To add more workspaces, right-click on the icon and select Preferences. For example, if you would like to have four workspaces you could select 2 rows by 2 columns (or 1 row by 4 columns). Also on the right side of the panel is the Trash Bin applet. This is much like the Recycle Bin in Windows or the Trash in OS X. Any files you delete go to the Trash Bin. To see the contents of the Trash Bin, click on it to open its window. Once the window is open, you can empty the trash by clicking on the Empty Trash button. You can also empty the trash by right-clicking the Trash Bin and selecting Empty Trash from the menu.

# **Managing Windows**

Managing your program windows in Ubuntu works in much the same way as Windows and OS X. Your typical program window will have an icon or button of some sort in the top left corner of the window. When that button/icon is right-clicked, a menu will appear with some window options (i.e. Minimize, Maximize, Always on Top, etc). You will also notice that the name of the program or file is displayed on the top of the window frame.

# Closing, Maximizing, Restoring, and Minimizing Windows

To close a window, click on the "X" in the upper right corner of the window. Just to the left of the "X" is a box-shaped icon that when clicked will "maximize" the window, making it fill the entire screen. Click the maximize icon a second time, and the window will return to its original size. If you want to minimize the window to the lower panel, click the "-" icon. To display the window on the desktop again, click the spot on the lower panel where the window's name is displayed.

# Moving and Resizing Windows

To move a window around the workspace, place the cursor on the top of the window, then click and drag the window. To resize a window, place the cursor on and edge or corner of the window so that it turns into a larger arrow, the resize icon. You can then click and drag to resize the window.

# Switching Between Tasks

Ubuntu offers you two ways to switch between tasks when you have multiple windows open in a workspace. You can locate the window on the bottom panel taskbar and click to bring it up on the screen, or you can use ALT+Tab to select the window you wish to work on. Hold down the ALT key, and keep pressing the Tab button until you have the window you're looking for.

# **Getting Help**

Ubuntu, just like other operating systems, has a built-in help reference, called the Ubuntu Help Center. To access it, click on the Help icon (by default, the icon is a blue circle with a white question mark (?) in the middle). You can also access it as "Help and Support" through the System menu on the top panel. If you can't find an answer to your question in the Help Center, you can reach out to the Ubuntu community through the Ubuntu Forum. Many Ubuntu users open an account on the Forum to receive help. Later, as they gain knowledge of Ubuntu, they provide help to others. Another good resource for obtaining answers is Google. You may find that your question has been already been asked and answered just by using a few keywords in the Google search engine.

The Ubuntu Forums can be accessed at http://ubuntuforums.org.

# Using the Applications Menu

We mentioned earlier that the top panel contains three menu headers. Let's take a look at those menus in a bit more detail, starting with the Applications menu.

# Accessories

The Accessories sub-menu has many programs that are suited for productivity, including Calculator and Tomboy Notes. Other programs in Accessories include the CD/DVD Creator, gEdit text editor (similar to Windows Notepad and OS X's TextEdit), Search for Files (we'll discuss that later), and Take Screenshot, which allows you to take a picture of your desktop screen.

# **Games and Applications**

Ubuntu has several games built in for your entertainment. If you enjoy card games, check out AisleRiot Solitaire. Perhaps you're looking for more of a challenge: in that case, there's gBrainy and Sudoku. The Games menu also includes Mahjongg, Mines (similar to Windows Minesweeper game) and Quadrapassel (similar to Tetris).

# Graphics

Under the Graphics sub-menu, you'll find the F-Spot photo manager, OpenOffice Drawing, and some scanner applications.

# Internet

The Internet sub-menu is where you will find the Firefox web browser, Empathy IM client, and Ubuntu One, an online storage site that syncs with your Ubuntu data.

# Office

The Office sub-menu is where you will find your OpenOffice programs (word processing, spreadsheet, etc.), the Evolution mail client, and an on-line dictionary.

# Sound and Video

The Sound and Video sub-menu has progarms for working with multimedia, such as the **Brasero Disk Burner**, **Totem Movie Player**, **Pitivi Video Editor**, **Rhythmbox Music Player**, and **Sound Recorder**.

# **Ubuntu Software Center**

At the very bottom of the Applications menu is the **Ubuntu Software Center**. This application gives you access to a library of free software that you can download. The main screen in the Software Center is similar to your Applications menu, for easy searching. If you know the name of the program you're looking for, just enter it in the search box on the top

See Kapitel 5: Software and Packaging for more information about the Ubuntu Software Center

See Kapitel 3: Standardanwendungen for more information about the included applications. right of the Software Center window. The Software Center keeps track of programs that are installed on your computer. If you're simply curious as to what is available, you can explore the software available using the categories listed on the left side of the window.

# Using the System Menu

The system menu, located on the top panel, contains two important sub-menus. Those submenus, Preferences and Administration, make it possible for you to make modifications to how your system looks and works. Through the System menu, you can also open the Ubuntu Help Center (Help and Support), find out more about your GNOME desktop environment (About GNOME), and find out more about Ubuntu in general (About Ubuntu). The System menu and its sub-menus are the equivalent of the Control Panel in Windows and OS X's Systems Preferences.

# Preferences

The Preferences sub-menu is where you go to modify the Appearance of the desktop and windows, assign a default printer, designate keyboard shortcuts, change the entries listed in the Main (Applications) menu, edit network connections, and change mouse settings, among other options.

# **Administration**

The Administration sub-menu contains programs you can use to monitor computer performance, change disk partitions, activate third-party drivers, manage all installed printers, and manage how your computer receives updates from Ubuntu. This sub-menu also has the **Synaptic Package Manager**, which is a more technical resource for locating and downloading software packages.

# **Browsing Files on Your Computer**

There are two basic ways to locate files on your computer. You can use the **Search for Files** tool in the Applications menu, under Accessories. You can also use the Places menu on the top panel.

# **Places Menu**

The Places menu is, essentially, a list of commonly used folders (such as Home Folder, Documents, Music, Downloads). You can also browse all disks on the computer by clicking on Computer in the Places menu. If you set up a home network, you will find a menu item to access shared files/folders. You can also access the Search for Files tool from the Places menu, and browse a list of recently opened documents.

# Your Home Folder

The home folder is where each user's personal files are located. When you installed Ubuntu, you entered a name to set up your user account. That same name is assigned to your See Kapitel 4: Preferences and Hardware for more detailed information about the options available in the System menu. folder in the Home Folder. When you open your personal folder, you will see that there are several folders there - Desktop (any files that are located on the Desktop), Documents, Downloads, Music, Pictures, Public, Templates, and Videos. You will also see a link named Examples. Double- click that link to open a folder full of example documents, spreadsheets, and multimedia.

# **Nautilus File Browser**

Just as Windows has Windows Explorer and OS X has the Finder to browse files and folders, Ubuntu uses the **Nautilus** file browser by default. We will now look at the features offered in Nautilus.

# The Nautilus file browser window

When you open a folder on the Desktop or from the Places menu, the **Nautilus** file browser window opens up. The standard browser window contains the following features:

- Menu Bar: The menu bar is located at the top of the window. These menus allow you to modify the layout of the browser, navigate, bookmark commonly used folders and files, and view hidden folders and files.
- Icon Bar: The icon bar has tools for navigation and a tool to make the contents of the window larger or smaller. A drop-down box gives you the option of switching the view from Icon View to List View or Compact View. The search icon (which looks like a magnifying glass) opens up a box so you can search for a file by name.
- Additional Navigation Tools: Just below the Icon Bar, you will see a representation of where you are currently browsing, similar to the "tree" you find on many forum sites. You can click on the locations to navigate back through the file browser.
- The left pane of the file browser has shortcuts to commonly used folders. When you bookmark a folder, it appears in the left pane. No matter what folder you open, the left pane will always contain the same folders. This left pane can be changed to display different features by clicking the down arrow beside "Places" near the top.
- The largest, central pane shows the files and folders in the directory that you're currently browsing.

# **Opening Files**

To open a file, you can either double-click on its icon or right click and select Open With (program).

If you bookmark a folder, it will appear in the Places menu.

# **Copying and Moving Files and Folders**

Copying files can be done through the Edit menu in **Nautilus** (either using Copy or Copy To), or by right-clicking on the file and and selecting Copy or Copy to from the pop-up menu. When using the Edit menu in **Nautilus**, make sure you've selected the file (click on it to highlight it) before you click on the Edit menu. Multiple files can be selected by holding the left mouse button down while dragging the cursor across the files you want. The click-drag move is good when you are selecting files whose icons are grouped together. To select files that are not grouped together, hold the CTRL key down and click on each file you wish to select.

To move files and folders around, locate the file or folder you want to move. Click and hold on the file or folder and drag it to the new location. Another way of moving folders or files is to use the Copy command, followed by Paste in the new location.

#### **Navigating Between Directories**

To navigate between directories, use the bookmarks in the left pane of the **Nautilus** file browser. You can also retrace your steps by clicking the name of a folder where it is listed just below the navigational icons. Double-clicking a visible directory will cause you to navigate to it in **Nautilus**.

# **Creating New Folders**

To create a new folder, you can either right-click in the file browser window (or on the Desktop) and select Create Folder from the pop-up menu, or select Create Folder from the File menu in Nautilus. If you wish to hide certain folders or files, just place a dot (.) in front of the file name (i.e. ".Personal Finances").

#### Using Multiple Tabs and Multiple Nautilus Windows

The **Nautilus** file browser gives you the option to do tabbed browsing as an alternative to opening several **Nautilus** windows. To open new tabs in **Nautilus**, select New Tab from the File menu. If you prefer having separate **Nautilus** windows open, select New Window from the File menu. You can move files and folders using the drop-and-drag method using either separate windows or tabbed browsing. When you open a new tab, it will produce a second window of the current directory that you're working in. To select a different directory for the new tab, navigate to the desired location using the left pane.

# Searching for Files on Your Computer

Eariler, we found that you can search for files on the computer by using the Search for Files feature on the Places menu in the top panel. We also discovered that you can use the **Nautilus** browser to search for files, as explained above. Some files or folders may have dot (.) in front of the file/folder name. Those files/folders are hidden files. To display hidden files in **Nautilus**, select "Show Hidden Files" from the View menu in the file browser or press CTRL+H.

You can view hidden files by clicking the "View" menu and then clicking "Show Hidden Files" or by pressing CTRL+H.

# **Customizing Your Desktop**

Now that you've been thoroughly introduced to the GNOME desktop environment, let's take a look at customizing its features.

# Appearance

There are many things you can do with the desktop appearance. The panels can be moved from their top/bottom positions to the sides of the screen, they can be set to hide, or you can change the panel color. To access these features, right-click the panel you want to modify and select Properties from the pop-up menu. The General tab has options to autohide, position the panel, and change the panel size. By default, the panels cover the entire length of the desktop. To change that, un-check the Expand box. To hide the panel on the left or right corner of the desktop, select the Show Hide Buttons. To put arrows on the hide buttons, check the Arrows on Hide Buttons box (by default, this box will be checked when you select Show Hide Buttons. To make the taskbar disappear, select Autohide. The task bar will reappear when you place the cursor on the side of the screen where the panel was before it hid. The Background tab in Panel Properties allows you to use the system theme (default setting), or select a color of your choosing. You can also set the transparency of the panels, or even select a picture or design from your files as a panel background.

Changing the desktop background is quite simple. You can either right-click on the desktop and select Change Desktop Background from the pop-up menu, or, from the top panel, select the System menu, Preferences, Appearance. When the Appearance Preferences window opens up, click on the Background tab. You will see some stock backgrounds to choose from. If you are looking for something beyond these, you can use any picture on your computer as a desktop background. Click the button labelled "Add..." and find the picture you wish to use. Double-click on it, and the change will take effect immediately. Once you do this, the picture will become available in the Appearance Preferences. To find even more great desktop backgrounds, click on the "Get More Backgrounds Online" link at the bottom of the Appearance Preferences window. This link will open your web browser, and direct you to the GNOMElook.org website.

You can also change the fonts through the Appearance Preferences window. Just click on the Fonts tab. You can individually set the font style and size for applications, documents, desktop items, window titles, and for anything using fixed width fonts. The Rendering section at the bottom of the Fonts window gives you four options for font rendering.

#### Windows

The Appearance Preferences window has a Theme tab, where you can select a theme that will control the appearance of your windows, buttons, scroll bars, panels, icons, and other parts of the desktop. Ubuntu comes with nine themes to choose from, and the Human theme is selected by default. You can download additional themes by clicking the "Get More Themes Online" link on the bottom of the Themes window. The link will take you to the GNOMElook.org website, where you can download from a large selection of themes. To add downloaded themes

You can also choose to delete the panels, and install a Mac OS X-style dock. Two dock programs available in the Ubuntu Software Center are Cairo-Dock and Avant Window Navigator (AWN). to the Themes tab, drop-and-drag the downloaded file into the Themes window (this will work for most themes). You can customize any theme: select the theme, and click the Customize button. This will allow you to mix elements of different themes, thus creating your own special theme.

### Screensaver

Ubuntu offers a selection of screensavers. By default, Ubuntu goes to a black screen after a period of inactivity. To select a different screensaver, click on the System menu on the top panel, select Preferences, and select Screensaver. This will open the Screensaver Preferences window. The available screensavers are listed on the left side of the window. When you select a screensaver, you will see a mini-preview in the window. To see how it will look on your screen, click the Preview button. To exit the preview, click the Leave Fullscreen button on the top of the screen. The left and right arrow buttons in Fullscreen allow you to scroll through the available screensavers while still in full screen mode. Make sure that the Activate Screensaver When Idle box is checked to activate the screensaver. The slider can be adjusted to set the idle time. For added security, you can check the Lock Screen When Screensaver Is Active box. This will require your login password to return to using the computer.

# Accessibility

Ubuntu has built-in tools that make using the computer easier for people with certain physical limitations. These tools can be found by clicking on the System menu, then choosing Preferences, then **Assistive Technologies**. In addition to the **Assistive Technologies**, certain appearance tweaks, such as selecting high contrast themes and larger on-screen fonts can assist those with limited vision. You can also adjust keyboard and mouse settings through the Assistive Technologies window. Just click on the Keyboard Accessibility or Mouse Accessibility buttons in the Preferences section to access those features.

# **Assistive Technoligies**

**Orca**, a tool for persons with visual impairments, is pre-installed on Ubuntu. To run **Orca**, Press ALT+F2, type **Orca** in the command box, and click on the Run button. You can also run **Orca** from the command line. To do this, open a Terminal (**Applications** > **Accessories** > **Terminal**), type **Orca** at the prompt and press Enter. **Orca**'s voice synthesizer will activate to navigate you through the various voice options, Braille, and screen magnification. Once you have selected all settings, log out of the computer. Once you log back in, the **Orca** settings you chose will automatically run every time you use your computer.

# **Shutting Down Your Computer**

When you're done working on your computer, you can shut down the computer or place it in standby through the Session Indicator applet on the far right end of the top panel. You can also access these options by pressing the CTRL+ALT+DELETE keys.

# Logging Out

To log out and leave the computer running, select Log Out from the Session Indicator menu.

# Rebooting

To reboot your computer, select Restart from the Session Indicator menu.

# Shut Down

To totally power down your computer, select Shut Down from the Session Indicator menu.

# **Other Options**

From the Session Indicator menu, you can also choose to Lock Screen (good if you need to leave your computer for a few minutes), set up a Guest Session for a friend to try Ubuntu, or Switch User to use another user account without closing your running applications.

# 3 Standardanwendungen

# Internetverbindung herstellen

Bevor Sie das Optimum aus Ihrem Rechner herausholen können, stellen Sie sicher, dass Sie über eine Internetverbindung verfügen. Dieser Abschnitt des Handbuches wird Ihnen dabei helfen, Ihre Internetverbindung zu kontrollieren und herzustellen.

Ubuntu kann sich per Kabel, WLAN oder Einwahlverbindung mit dem Internet verbinden. Es unterstützt aber noch weitere Verbindungsoptionen.

Eine **Kabel**-Verbindung wird verwendet, wenn der Rechner physisch per Kabel mit einem Router oder Netzwerkport verbunden ist. Das ist die am weitesten verbreitete Verbindungsmethode bei Desktoprechnern.

Eine **WLAN**-Verbindung wird verwendet, wenn der Rechner per Funkverbindung mit dem Internet verbunden ist, auch als Wi-Fi bekannt. Häufig werden Laptoprechner per Funkt verbunden, besonders wenn Sie im mobilen Einsatz sind. Um eine Funkverbindung herstellen zu können, müssen Sie ein WLAN-Netz aufgebaut haben. Das ist normalerweise der Fall, wenn Sie einen **WLAN-Router** oder **Accesspoint** gekauft und eingerichtet haben, oder wenn Sie sich an einem Ort aufhalten, an welchem ein WLAN-Netz aufgebaut wurde.

Eine **Einwahl**-Verbindung liegt vor, wenn sich Ihr Rechner mit einem **Modem** und einem Telefonkabel mit dem Internetprovider verbindet.

Ubuntu kann ebenso eine Verbindung über mobiles Breitband, VPN oder DSL herstellen.

#### Netwzerk-Manager

Um mit Ubuntu eine Verbindung zum Internet herzustellen, müssen Sie die Anwendung **NetworkManager** verwenden. NetworkManager erlaubt es ihnen, Ihr Netzwerk an- und auszuschalten und Ihre Kabel-, Funk- und andere Verbindungen zu verwalten.

Sie können alle Funktionen des NetworkManagers verwenden, indem Sie sein Symbol in dem oberen Panel benutzen. Das Symbol sieht anders aus, je nachdem ob Sie bereits eine Verbindung haben und Ihre Verbindung kabelgebunden oder per Funk läuft. Wenn Sie Ihren Mauszeiger über das Symbol bewegen, sollte es "Kabelverbindung ...", "Keine Verbindung" oder "Netzwerk deaktiviert" oder etwas ähnliches netzwerkbezogenes anzeigen.

Wenn Sie momentan mit dem Internet verbunden sind, können Sie auf das Symbol klicken. Daraufhin erscheint eine Liste an verfügbaren Netzwerken, bei denen Ihre momentane Verbindung fett hervorgehoben ist.

Sie können auch rechts auf das NetworkManager-Symbol klicken. Daraufhin erscheint ein Menü, in welchem Sie das Netzwerk (de-)aktivieren, technische Details anzeigen oder Ihre Verbindungseinstellungen verwalten können. In der Grafik ist die Auswahlbox für "Netzwerk Dieses Handbuch deckt nur die Einrichtung einer Internetverbindung ab, während die Verbindung zu einem Firmen- oder anderem Netzwerk ähnlich ist.

Note: VPN bedeutet "Virtuelles Privates Netzwerk", und wird manchmal für sichere Verbindungen verwendet. DSL bedeutet "Digital Subscriber Lines", ein Typ von Breitbandverbindung. aktivieren" ausgewählt; Sie können Sie abwählen, um alle Netzwerkverbindungen zu deaktivieren. Das kann nützlich sein, wenn Sie alle Funkverbindungen deaktivieren müssen, zum Beispiel in einem Flugzeug.

# Eine Verbindung herstellen

Um online zu gehen, müssen Sie sicherstellen, dass Sie eine Verbindung aufgebaut haben. Es gibt viele verschiedene Wege, Ubuntu mit dem Internet zu verbinden — einige davon werden wir im Folgenden besprechen.

# Kabelgebunden

Wenn Sie ein Netzwerkkabel haben, dass von einer Wanddose, einem Router oder einem anderen Gerät zu Ihrem Rechner verläuft, müssen Sie wahrscheinlich eine **kabelgebundene** Netzwerkverbindung benutzen. Das ist der häufigste Fall für Desktoprechner und andere stationäre, mit dem Internet verbundene Rechner.

Um eine kabelgebundene Verbindung herzustellen, benötigen Sie die Information, ob Ihre Netzwerkverbindung **DHCP** unterstützt. Das steht für "Dynamic Host Configuration Protocol" und ist eine Möglichkeit für Rechner in Ihrem Netzwerk, automatisch eine IP-Adresse samt zugehöriger Konfiguration zu beziehen. Wenn Sie darüber unsicher sind, versuchen Sie zuerst DHCP zu verwenden. Wenn das nicht funktioniert, fragen Sie Ihren Netzwerkadministrator nach statischen IP-Adressinformationen.

#### Automatische Verbindung mit DCHP

Wenn Ihr Netzwerk DHCP unterstützt, sind Sie vielleicht schon online. Um zu kontrollieren, ob Sie online sind, klicken Sie rechts auf das NetworkManager-Symbol im oberen Panel und wählen Sie die **Verbindungsinformationen**-Option.

Sie sollten ein Fenster sehen, dass Ihnen Details über Ihre Verbindung zeigt. Wenn Ihre IP-Adresse 0.0.0.0 ist, oder mit 169.254 beginnt, haben Sie keine gültige Adresse über DHCP zugewiesen bekommen. Wenn hier etwas anderes steht, ist es wahrscheinlich, dass Ihre Verbindung richtig eingerichtet wurde.

Wenn Sie das Verbindungsinformationen-Fenster nicht anzeigen lassen können, weil die Option im NetworkManager ausgegraut ist, ist Ihre Verbindung nicht aktiv. Um zu überprüfen, ob Ihre Verbindung aktiv ist, stellen Sie sicher, dass **Netzwerk aktivieren** ausgewählt ist.

Klicken Sie dann mit der linken Maustaste auf das NetworkManager-Symbol. Dort sollte ein Eintrag für "Kabelnetzwerk" in dem erscheinenden Menü angezeigt werden. Wenn diese Option ein ausgegrautes "nicht verbunden" zeigt, finden Sie die Option "Auto eth0" in der Liste und klicken Sie links, um zu versuchen, eine Verbindung herzustellen. Wenn "Auto eth0" direkt unter "Kabelgebunden" steht, ist Ihr Rechner korrekt für DHCP eingerichtet.

Wenn Sie nach diesen Schritten immer noch nicht online sind, sollten Sie die Einstellungen mit Ihrem Netzwerkadministrator nochmal überprüfen und möglicherweise mit der Anleitung zum manuellen Einrichten einer statischen IP-Adresse fortfahren. Note: Sind Sie bereits online? Wenn das Symbol des Netzwerkmanagers im Panel eine Verbindung anzeigt, haben Sie während dem Installationsprozess wahrscheinlich schon eine erfolgreiche Verbindung mit dem Internet hergestellt. Wenn das der Fall ist, überspringen Sie den Rest des Abschnittes.

#### Manuelle Konfiguration mit statischer Adresse

Wenn Ihr Netzwerk DHCP nicht unterstützt, sollten Sie einige Dinge wissen, bevor Sie online gehen können.

- **IP-Adresse** Dies wird die Adresse Ihres Rechners sein. Diese hat immer die Form von vier durch Dezimalpunkte getrennten Zahlen, zum Beispiel 192.168.0.2
- Netzwerkmaske Diese informiert Ihren Rechner darüber, wie groß Ihr Netzwerk ist. Sie sieht normalerweise genauso aus wie eine IP-Adresse, normalerweise in der Gegend von 255.255.255.0
- Gateway Das ist die IP-Adresse des Routers Ihres Netzwerkes: Ihr Rechner sendet die Daten, die ans Internet gesandt werden sollen, dorthin.
- DNS-Server Eine oder mehrere IP-Adressen von "Domain Name System"-Servern, welche Namen wie www.ubuntu.com in IP-Adressen wie 91.189.94.156 umwandeln; Ein Server wird benötigt, weitere sind optional, für den Fall das der erste ausfällt.

Wenn Sie diese Daten nicht haben, müssen Sie Ihren Netzwerkadministrator danach fragen.

Um eine kabelgebundene Netzwerkverbindung manuell zu konfigurieren, klicken Sie rechts auf das NetworkManger-Symbol und wählen Sie **Verbindungen bearbeiten**. Stellen Sie sicher, dass Sie den "Kabelgebunden"-Reiter im angezeigten "Netzwerkverbindungen"-Fenster ausgewählt haben.

Diese Liste kann bereits einen Eintrag enthalten, wie zum Beispiel "Auto eth0" oder anderen, ähnlichen Namen. Wenn eine Verbindung aufgelistet ist, klicken Sie auf diese und drücken Sie den **Bearbeiten**-Knopf. Wenn keine Verbindung angezeigt wird, drücken Sie stattdessen den Knopf **Hinzufügen**.

Wenn Sie eine neue Verbindung hinzufügen, müssen Sie zuerst einen Namen angeben. Geben Sie diesen bitte in das Feld "Verbindungsname" ein, zum Beispiel "Kabelgebundene Verbindung 1".

Um die Verbindung einzurichten:

- 1. Stellen Sie sicher, dass das Auswahlfeld **Automatisch verbinden** unter dem Verbindungsnamen ausgewählt ist.
- 2. Wechseln Sie zum Reiter IPv4-Einstellungen
- 3. Ändern Sie die Methode auf "Manuell"
- 4. Klicken Sie auf den Knopf Hinzufügen neben der leeren Adressliste
- 5. Geben Sie Ihre IP-Adresse in das Feld unter der Überschrift **IP-Adresse** ein

- 6. Klicken Sie mit der linken Maustaste rechts neben die IP-Adresse, direkt unter die **Netz**werkmaske-Überschrift und geben Sie Ihre Netzwerkmaske ein
- 7. Klicken Sie rechts neben die Netzwerkmaske, direkt unter die **Gateway**-Überschrift und geben Sie Ihre Gatewayadresse ein
- 8. In das unten liegende **DNS-Server**-Feld geben Sie die per Leerzeichen oder Kommata getrennten DNS-Serveradressen ein
- 9. Klicken Sie auf die Anwenden Schaltfläche und speichern Sie die Änderungen.

In manchen Fällen müssen Sie noch eine MAC-Adresse angeben. Diese wird im Reiter "Kabelgebunden" angegeben. Die MAC-Adresse ist die Hardwareadresse Ihrer Netzwerkkarte und wird manchmal für Kabelmodems und ähnliche Verbindungen benötigt.

Wenn Sie wieder auf dem "Netzwerkverbindungen"-Schirm sind, sollte Ihre neu angelegte Verbindung gelistet sein. Klicken Sie auf die Schaltfläche **Schließen**, um zur Arbeitsfläche zurückzukehren. Wenn Sie Ihre Netzwerkverbindung korrekt eingerichtet haben, sollte das NetworkManager-Symbol eine aktive Verbindung anzeigen. Verwenden Sie die Anweisungen aus dem Abschnitt DHCD, um zu prüfen, ob Ihre Verbindung korrekt eingerichtet wurde.

Der abschließende Test Ihrer Netzwerkverbindung steht an, wenn Sie versuchen, einen Webbrowser zu benutzen, wie später in diesem Kapitel erklärt wird.

#### Funknetzwerk

Wenn Ihr Rechner mit einer WLAN-(Wi-Fi)-Karte ausgestattet ist und Sie ein Funknetzwerk in Ihrer Nähe haben, sollten Sie in der Lage sein, eine WLAN-Verbindung mit Ubuntu herstellen zu können.

#### Eine WLAN-Verbindung zum ersten Mal herstellen

Wenn Ihr Rechner eine WLAN-Karte besitzt, sollten Sie sich mit einem Funknetzwerk verbinden können. Die meisten Laptops und Netbooks besitzen eine WLAN-Karte.

Ubuntu erkennt verfügbare Netzwerke normalerweise automatisch. Um eine Liste verfügbarer Netzwerke einzusehen, klicken Sie auf das NetworkManager-Symbol. Unter der Überschrift "Funknetzwerk" sollten Sie eine Liste verfügbarer Netzwerke sehen. Jedes Netzwerk wird mit dem Namen links und der Signalstärke rechts angezeigt. Die Signalstärke wird über eine Reihe an Balken dargestellt — Je mehr Balken gefüllt sind, desto besser ist die Verbindung, die Ihr Rechner zu dem Netzwerk aufbauen kann.

Die Verbindung zu einem Funknetzwerk kann für jeden offen oder mit Sicherheitssperren geschützt sein. Die Liste der verfügbaren Netzwerke kann ein kleines "Schloss"-Symbol neben der Signalstärke enthalten. Das bedeutet, dass Sie das richtige Passwort benötigen um sich mit dem gesicherten Funknetzwerk zu verbinden. Um sich mit einem Funknetzwerk zu verbinden, klicken Sie auf den Namen des Netzwerkes in der Liste. Sie sollten wissen, mit welchem Netzwerk Sie sich verbinden möchten — Es sollte das sein, welches Sie eingerichtet haben, als Sie Ihren WLAN-Router oder -Accesspoint installiert haben. Wenn Sie in einem Unternehmen oder eine Bildungseinrichtung sind, wird der Name des Netzwerkes wahrscheinlich dem der Einrichtung ähnlich sein.

Wenn das Netzwerk offen ist (also kein Schloss neben der Signalstärke angezeigt wird), sollte eine Verbindung innerhalb von Sekunden verfügbar sein. Das NetworkManager-Symbol in der Taskleiste zeigt eine Animation an, währen Ubuntu versucht sich mit dem Netzwerk zu verbinden und sollte zu den Signalstärke-Balken werden, sobald die Verbindung hergestellt wurde.

Ubuntu wird in der rechten oberen Ecke auch eine Nachricht anzeigen, welche Sie darüber informiert, dass die Verbindung hergestellt wurde.

Wenn das Netzwerk gesichert ist, wird Ubuntu Ihnen ein Fenster namens "Legitimierung für Funknetzwerk benötigt" anzeigen. Dieses Fenster bedeutet, dass das Funknetzwerk ein Passwort benötigt um die Verbindung zuzulassen.

Wenn Sie das Passwort wissen, geben Sie es in das Feld **Passwort** ein und drücken Sie die **Verbinden** Schaltfläche. Das Passwort wird während der Eingabe verschleiert, um zu Verhindern, dass man das Passwort vom Bildschirm mitlesen kann. Wenn Sie das eingegebene Passwort lieber noch einmal kontrollieren möchten, drücken Sie die **Passwort zeigen** Schaltfläche, nachdem Sie Ihr Passwort eingegeben haben.

Nachdem Sie die Verbinden Schaltfläche gedrückt haben, zeigt das NetworkManager-Symbol in der oberen Taskleiste eine Animation an, während es versucht, eine Verbindung zu dem Netzwerk aufzubauen. Wenn Sie das Passwort richtig eingegeben haben, sollte das NetworkManager-Symbol die Signalstärke-Balken zeigen, sobald eine Verbindung aufgebaut wurde.

Genauso wie bei ungesicherten Netzwerken zeigt Ubuntu eine Nachricht in der rechten oberen Ecke Ihres Bildschirms an, um Sie darüber zu informieren, dass eine Verbindung aufgebaut wurde.

Wenn Sie nicht das richtige Passwort eingegeben haben, wird das NetworkManager-Symbol trotzdem eine Animation anzeigen und Ihnen wahrscheinlich wieder das Fenster "Legitimierung für Funknetzwerk benötigt" anzeigen. Sie können jetzt entweder das richtige Passwort angeben, oder die Schaltfläche **Abbrechen** drücken, um den Verbindungsaufbau zu unterbrechen. Wenn Sie das Passwort für das Netzwerk nicht kennen, müssen Sie es bei Ihrem Netzwerkadministrator erfragen.

Sobald Sie erfolgreich eine Netzwerkverbindung aufgebaut haben, wird Ubuntu diese für Sie speichern. Das macht es einfacher für Sie, sich in der Zukunft mit dem selben Netzwerk wiederzuverbinden.

#### Verbindung zu einem bekannten Funknetzwerk herstellen

Wenn Sie in der Vergangenheit bereits erfolgreich eine Verbindung zu einem Funknetzwerk hergestellt hatten, wird das Passwort dieser Verbindung auf Ihrem Rechner gespeichert. Das erlaubt es Ihnen, sich mit diesem Netzwerk wiederzuverbinden, ohne das Passwort erneut eingeben zu müssen.

Zusätzlich wird Ubuntu automatisch versuchen, sich mit bekannten Funknetzwerken in der Umgebung zu verbinden. Das funktioniert sowohl für gesicherte wie ungesicherte Funknetzwerke.

Wenn Sie mehrere bekannte Funknetzwerke in Reichweite haben, wird Ubuntu sich mit irgendeinem davon verbinden, obwohl Sie gerne ein anderes hätten. In diesem Fall klicken Sie auf das NetworkManager-Symbol, um eine Liste von Funknetzwerken in Reichweite und deren Signalstärke zu erhalten. Klicken Sie auf das gewünschte Netzwerk.

Wenn das Passwort und andere Einstellungen nicht geändert wurden, wird Ubuntu sich mit dem gewählten Netzwerk verbinden. Wenn sich das Passwort geändert hat, wird Ubuntu das Fenster "Legitimierung für Funknetzwerk benötigt" öffnen. In diesem Fall folgen Sie den Anweisungen aus dem vorherigen Abschnitt.

#### Verbindung zu einem verborgenem Funknetzwerk herstellen

Unter manchem Umständen müssen Sie sich mit einem verborgenem Funknetzwerk verbinden. Diese verborgenen Funknetzwerke geben Ihre Namen nicht kund — Was bedeutet, dass sie nicht in der Liste verfügbarer Funknetzwerke im NetworkManager-Menü auftauchen. Um sich mit einem verborgenem Netzwerk zu verbinden, fragen Sie Ihren Netzwerkadministrator nach seinem Namen und den Sicherheitseinstellungen.

Verbindung zu einem verborgenem Netzwerk herstellen:

- 1. Klicken Sie auf das NetworkManager-Symbol im oberen Panel
- 2. Wählen Sie die Option **Mit einem verborgenem Funknetzwerk verbinden** .... Ubuntu sollte eine Fenster namens "Mit einem verborgenen Funknetzwerk verbinden" öffnen.
- 3. Das Feld Verbindung sollte "Neu ..." zeigen Sie können das so übernehmen
- 4. In dem Feld **Netzwerkname** geben Sie den Namen des Funknetzwerkes ein. Der Name ist auch als "**SSID**" bekannt. Bitte geben Sie den Namen genau so ein, wie er Ihnen mitgeteilt wurde
- 5. In dem Feld **Sicherheit des Funknetzwerks** wählen Sie die entsprechende Option. Wenn das Netzwerk ungesichert ist, lassen Sie das Feld auf "Keine". Wenn Sie die passenden Einstellungen für das Netzwerk nicht kennen, können Sie sich nicht mit dem verborgenen Netzwerk verbinden
- 6. Klicken Sie auf die Verbinden Schaltfläche

Der Rest des Vorganges sollte genauso ablaufen wie in dem Abschnitt über die Einrichtung eines Funknetzwerks beschrieben. Das Netzwerk sollte in der Liste der bekannten Netzwerke auftauchen, sobald es entsprechend den obigen Anweisungen eingerichtet wurde.
#### Ihre WLAN-Karte aktivieren und deaktivieren

Wenn Ihr Rechner eine WLAN-Karte besitzt, ist die Funknetzwerkverbindung in Ubuntu automatisch aktiviert. In manchen Fällen, zum Beispiel in einem Flugzeug, kann es sein dass Sie die Verbindung deaktivieren möchten oder müssen.

Um das zu bewerkstelligen, klicken Sie rechts auf das NetworkManager-Symbol und wählen Sie die Option **Funknetzwerk aktivieren** ab. Ihre WLAN-Karte wird deaktiviert und Ihr Rechner wird nicht weiter nach verfügbaren Funknetzwerken suchen.

Um Ihre WLAN-Karte wieder zu aktivieren, klicken Sie rechts auf das NetworkManager-Symbol und wählen Sie die Option **Funknetzwerk aktivieren** wieder an. Ihre WLAN-Karte wird wieder aktiviert. Ubuntu wird wieder nach verfügbaren Funknetzwerken in der Umgebung suchen und sich zu bekannten Netzwerken verbinden.

#### Eine bestehende Funknetzwerkverbindung bearbeiten

Manchmal kann es vorkommen, dass Sie die gespeicherten Einstellungen für eine Funknetzwerkverbindung, die Sie in der Vergangenheit gespeichert hatten, ändern möchten. Das Passwort kann sich geändert haben, oder Ihr Netzwerkadministrator hat gewisse Netzwerk- oder Sicherheitseinstellungen geändert.

Um eine gespeicherte Funknetzwerkverbindung zu ändern:

- 1. Klicken Sie rechts auf das NetworkManager-Symbol und wählen Sie Verbindungen bearbeiten...
- 2. Ein Fenster namens "Netzwerkverbindungen" sollte sich öffnen. Klicken Sie auf den **Funknetzwerk**-Reiter um eine Liste gespeicherter Funknetzwerkverbindungen zu erhalten
- 3. Diese Liste zeigt die Verbindungen in der Reihenfolge ihrer letzten Benutzung an. Suchen Sie die Verbindung, die Sie bearbeiten möchten und klicken Sie auf die **Bearbeiten** Schaltfläche
- 4. Ubuntu sollte jetzt ein Fenster namens "*Verbindungsname* bearbeiten " öffnen, wobei *Verbindungsname* der Name der zu bearbeitenden Verbindung ist. Das Fenster sollte eine gewisse Anzahl an Reitern enthalten.
- 5. Sie können den Eintrag in dem Feld **Verbindungsname** über den Reitern ändern, wenn Sie der Verbindung einen aussagekräftigeren Namen geben möchten
- 6. Wenn die Option **Automatisch verbinden** abgewählt ist, wird Ubuntu sich nicht automatisch zu dem Funknetzwerk verbinden, solange Sie das Netzwerk nicht explizit im NetworkManager-Menü auswählen, selbst wenn es in Reichweite ist. Setzen Sie die Option je nach Bedürfnis.
- 7. In dem Reiter **Funknetzwerk** des Fensters "*Verbindungsname* bearbeiten " können Sie auch das Feld **SSID** bearbeiten. Die "SSID' ist der Netzwerkname der Verbindung — Wenn sie falsch ist, wird das Netzwerk nicht erkannt und keine Verbindung aufgebaut.

Stellen Sie sicher, dass die SSID entsprechend den Anweisungen Ihres Netzwerkadministrators gesetzt ist.

- 8. Unter der SSID befindet sich das Feld **Modus**. Der "Infrastruktur"-Modus bedeutet, dass Sie sich zu einen WLAN-Router oder -AccessPoint verbinden. Das ist der gebräuchlichste Modus für Funknetzwerke. Der Modus "Ad-Hoc" ist für Rechner-zu-Rechner-Verbindungen und wird häufig in fortgeschrittenen Szenarien verwendet.
- 9. In dem Reiter Sicherheit des Funknetzwerks des Fensters "emphVerbindungsname bearbeiten" können Sie in dem Feld Sicherheit die richtigen Einstellungen tätigen. Die Auswahl Keine bedeutet, dass Sie ein ungesichertes Netzwerk ohne jegliche Verschlüsselung verwenden. Andere Auswahlen benötigen leicht unterschiedliche Informationen:
  - WEP 64/128-bit-Schlüssel ist eine ältere Sicherheitseinstellung, welche noch in einigen älteren Funknetzwerken verwendet wird. Wenn Ihr Netzwerk diesen Verschlüsselungsmodus benutzt, müssen Sie einen Schlüssel in das Feld Schlüssel eingeben, dass erscheint nachdem Sie diesen Modus ausgewählt haben. Der Schlüssel wird normalerweise als Reihe von alphanumerischen Zeichen von 0 bis 9 und A bis F angegeben.
  - WEP 128-bit Kennwort ist die gleiche ältere Sicherheitseinstellung wie der obige Eintrag. Allerdings müssen Sie eine Passphrase — ein Passwort — an Stelle eines Schlüssels angeben, welches Ihr Netzwerkadministrator Ihnen mitgeteilt haben sollte. Sobald Sie diesen Sicherheitsmodus ausgewählt haben, müssen Sie die Passphrase in das Feld Schlüssel eingeben.
  - WPA & WPA2 Personal ist der am Weitesten verbreitetste Sicherheitsmodus für Funknetzwerke daheim oder in Firmen. Sobald Sie diesen Modus ausgewählt haben, müssen Sie ein Passwort in das Passwort Feld eingeben.
  - Wenn Ihr Netzwerk LEAP, Dynamisches WEP, oder WPA & WPA2 Enterprise benötigt, fragen Sie Ihren Administrator um Hilfe, um diese Sicherheitsmodi korrekt einzurichten.
- 10. On the **IPv4 Settings** tab, you may need to change the **Method** field from "Automatic (DHCP)" to "Manual", or one of the other methods. For setting up manual settings (also known as static addresses), please see the section above on manual set up for wired network connections.
- 11. Wenn Sie Ihre Änderungen vollzogen haben, klicken Sie die Schaltfläche **Anwenden** um sie zu speichern und das Fenster zu schließen. Sie können die **Cancel** Schaltfläche drücken, um das Fenster zu schließen ohne die Änderungen zu speichern.
- 12. Klicken Sie abschließend auf die **Schließen** Schaltfläche in dem "Netzwerkverbindungen" Fenster um zur Arbeitsfläche zurückzukehren.

Nachdem Sie die Änderungen gespeichert haben, sollten diese sofort angewendet werden.

#### Fehleranalyse häufig auftretender Funknetzwerkverbindungsprobleme

# **Einwahl**

# Andere Verbindungsmethoden

Es gibt noch andere Möglichkeiten, mit Ubuntu Netzwerkverbindungen aufzubauen.

Mit dem NetworkManager können Sie auch mobile Breitbandverbindungen über Handys oder andere mobile Geräte herstellen.

Sie können sich auch per DSL (Digital Subscriber Line) verbinden, eine Verbindungsmethode welche Ihre Telefonleitung und ein "DSL-Modem" verwendet.

Sie können mit dem NetworkManager auch eine VPN (Virtuelles Privates Netzwerk)-Verbindung herstellen. Diese werden normalerweise verwendet, um sichere Verbindung zu seinem Arbeitsplatz herzustellen.

# Browsing the web

Once you have connected to the internet, you should be able to browse the web with Ubuntu. The **Mozilla Firefox** is the default application for browsing the web in Ubuntu.

# **Starting Firefox**

To start Firefox, click on the **Applications** menu, then **Internet**, and select **Firefox Web Browser**.

If your keyboard has a "WWW" button, you can also press that button to start Firefox.

# Navigating web pages

#### Viewing your homepage

When you start Firefox, you will see your home page. By default, you will see the **Ubuntu Start Page**.

To display more web content on the screen, you can use **Full Screen mode**. Full Screen mode condenses the Firefox's toolbars into one small toolbar. To enable Full Screen mode, simply select **View > Full Screen** or press F11.

To go to your home page quickly, press Alt+Home.

## Navigating to another page

To navigate to a new web page, you need to type its internet address (also known as a URL) into the Location Bar. URLs normally begin with "http://" followed by one or more names that identify the address. One example is "http://www.ubuntu.com/".

To navigate:

- 1. Click the Location Bar to select the URL that is already there.
- 2. Type the URL of the page you want to visit. The URL you type replaces any text already in the Location Bar.
- 3. Press Enter.

To quickly select the URL of the Location Bar, press Ctrl+L.

If you don't know a URL, try typing something specific to the page you want to visit (for example a name or other search request) into the Location Bar and press Enter. This will search your preferred search engine — Google by default — for that term, and take you to the web page that is the top result from the search.

#### **Clicking a link**

Most web pages contain links you can click to move to other pages.

To click a link:

- 1. Move the mouse pointer until it changes to a pointing finger. This happens whenever the pointer is over a link. Most links are underlined text, but buttons and pictures on a web page can also be links.
- 2. Click the link once. While Firefox locates the link's page, status messages will appear at the bottom of the window.

#### **Retracing your steps**

If you want to visit a page you have seen before, there are several ways to do so.

- To go back or forward one page, click the **Back** or **Forward** button.
- To go back or forward more than one page, click the small triangles on the Back and Forward buttons. You should see a list of pages you've recently visited. To return to a page, select it from the list.
- To see a list of any URLs you've typed into the Location Bar, click the down arrow at the right end of the Location Bar. To view a page, select it from the list.
- To choose from pages you've visited during the current session, open the **History** menu and use the list in the bottom section of the menu.
- To choose from pages you've visited during the past several sessions, open the **History** menu and select **Show All History**. Firefox should open a "Library" window, which should a list of folders. Click the folders to displays subfolders, or titles of web pages you've visited in the past. Click a page's title to view that page.

# Stopping and reloading

If a page is loading too slowly or you no longer wish to view a page, click the **Stop** button.

To reload the current page or to get the most up-to-date version, click the **Reload** button or press Ctrl+R.

# **Opening new windows**

At times, you may want to have more than one browsing windows. This may help you organize your browsing session better, or separate web pages that you are viewing for different reasons.

There are two ways to create a new window:

- On the menubar, click the File menu, then select New Window
- Press Ctrl-N

Once a new window has opened, you can use it just like the first window — including navigation and opening tabs.

#### Opening a link in a new window

Sometimes, you may want to click a link to navigate to another web page, but do not want the original page to close. To do this, you can open the link you'd like to click in its own window.

There are two ways to open a link in its own window:

- Right-click on a link to bring up its popup menu. Select the Open Link in New Window option. A new window should open, containing the web page for the link you clicked.
- Hold down the Shift key while clicking the link. A new window should open, containing the web page for the link you clicked.

### **Tabbed browsing**

If you would like to visit more than one web page at a time, you can use "Tabbed Browsing" to navigate the web.

Tabbed browsing lets you open several web pages within a single Firefox window, each displaying in its own tab. This frees up space on your desktop since you don't have to have a window open for every web page you're currently visiting. You can open, close, and reload web pages in one place without having to switch to another window.

#### Opening a new blank tab

There are three ways to create a new blank tab:

- Click the **New Tab** button on the right side of the last tab.
- On the menubar, click the File menu, and then select New Tab.
- Press Ctrl+T.

When you create a new tab, it will contain a blank page with the Location bar focused. Start typing a web address (URL) or other search term to open a website in the new tab.

#### Opening a link in its own tab

Sometimes, you may want to click on a link to navigate to another web page, but do not want the original page to close. To do this, you can open the link you'd like to click in its own tab.

There are three ways to open a link in its own tab:

- If your mouse has a middle button, or a wheel, click on the link with the middle mouse button or wheel. A new tab should open, containing the web page for the link you clicked.
- Click on the link with the left mouse button, and keep holding down the mouse button. Drag the link up to a blank space on the tab bar, and release the mouse button. A new tab should open, containing the web page for the link you dragged.
- Hold down the Ctrl key while clicking the left mouse button on the link. A new tab should oepn, containing the web page for the link you clicked.

#### Closing a tab

Once you are done viewing a web page in a tab, you can close that tab.

There are three ways to close a tab:

- Click on the **Close** button on the right side of the tab you want to close.
- On the menubar, click the File menu, and then select Close Tab.
- Click on the tab you want to close with the middle mouse button, or the mouse wheel, if you have one.
- Press Ctrl+W

#### Restoring a closed tab

Sometimes, you have closed the wrong tab by accident, or for another reason would want to bring back a tab that you've recently closed.

To bring back a tab you've closed:

- On the menubar, click the **History** menu, select **Recently Closed Tabs**, and then select the tab you want to restore.
- Press Ctrl+Shift+T to re-open the most recently closed tab.

#### Changing the tab order

To move a tab to a different location on the tab bar, drag it there using your mouse. Click on the tab with your left mouse button and hold the mouse button as you drag the tab to a new place on the tab bar. While you are dragging the tab, Firefox will display a small indicator to show where the tab will be moved.

#### Moving a tab between windows

If you have more than one Firefox window open, you can move an open tab to a different window. It is also possible to have a tab split off and become its own window.

To move a tab from one Firefox window to another already open window, click on the tab with your left mouse button, hold down the left mouse button, and then drag it to the tab bar on the other Firefox window. When you release the mouse button, the tab will be attached to the new window.

To move a tab from one window into its own window, click on the tab with your left mouse button, hold down the left mouse button, and then drag the tab below the tab bar. When you release the mouse button, the tab will become a new window.

#### Searching

You can search the web, or other collections, from within Firefox without first visiting the home page of the search engine.

By default, Firefox will search the web using the Google search engine.

#### Searching the web

To search the web in Firefox, type a few words into the Firefox Search Bar.

For example, if you want to find information about the *world cup*:

- 1. Click in the **Search Bar**.
- 2. Type the phrase "world cup". Your typing replaces any text currently in the Search Bar.
- 3. Hit Enter to search.

Search results from Google for "world cup" should appear in the Firefox window.

#### Selecting search engines

If you do not want to use Google as your search engine in the Search Bar, you can change the search engine that Firefox uses.

To change the search engine, click the icon on the left side of the Search Bar. Select one of the other search engines in the list. Some search engines, like Google, search the whole web; others, like Amazon.com, only search specific sites.

### Searching the web for words selected in a web page

Sometimes, you may want to search for a phrase that appears on a different web page. Instead of copying and pasting the phrase into the Search Bar, Firefox allows you to search the web for words you select within a web page.

- 1. Highlight any words in a web page using your left mouse button
- 2. Right-click on the text you've highlighted to display a popup menu. Select the option Search [Search Engine] for "[your selected words]".

Firefox should open a new tab which should contain search results for your highlighted words using the currently selected search engine.

#### Searching within a page

You may want to look for specific text within a web page you are viewing. To find text within the page you are currently viewing in Firefox:

- 1. Press Ctrl+F or select Edit > Find to open the Find Toolbar at the bottom of Firefox.
- 2. Type the text you want to find into the **Find** field in the Find Toolbar. The search automatically begins as soon as you type something into the field.
- 3. Once some text has been matched on the web page, you can:
  - Click **Next** to find text in the page that is below the current cursor position
  - Click **Previous** to find text that is above the current cursor position.
  - Click the Highlight all button to highlight occurrences of your search words in the current page.
  - Select the Match case field to limit the search to text that has the same capitalization as your search words.

To find the same word or phrase again, press F3 or select  $\mathbf{Edit} \succ \mathbf{Find}$  Again from the menubar.

# Copying, saving, and printing pages

With Firefox, you can copy part of a page so that you can paste it elsewhere, or save the page or part of a page as a file on your computer.

# Copying part of a page

To copy text from a page:

- 1. Highlight the text with your mouse.
- 2. Select **Edit > Copy** from the menubar.

You can past the text into other programs. To copy a link (URL) or an image link from a page:

- 1. Position the pointer over the link or image.
- 2. Right-click on the link or image to display a popup menu.
- 3. Choose Copy Link Location or Copy Image Location. If an image is also a link, you can choose either menu item.

You can paste the link into other programs or into Firefox's Location Bar.

#### Saving all or part of a page

To save an entire page in Firefox:

- 1. Select **File > Save Page As** from the menubar. Firefox should open the "Save As" window.
- 2. Choose a location for the saved page.
- 3. Type a file name for the page, and click the **Save** button.

To save an image from a page:

- 1. Position the mouse pointer over the image.
- 2. Right-click on the image to display a popup menu.
- 3. Select Save Image As. Firefox should open the "Save Image" window.
- 4. Choose a location for the saved image.
- 5. Type a file name for the image and click the **Save** button.

# Changing your homepage

Bu default, Firefox will show the **Ubuntu Start Page** when you start Firefox. If you prefer to display another page when you start Firefox, you will need to change your homepage preference.

To change your homepage:

- 1. Navigate to the page that you would like to become your new homepage.
- 2. Select **Edit > Preferences** from the menubar.
- 3. In the "Startup" section on the **Main** tab, which is shown by default, click the **Use Current Pages** button. If you had more than one tab open then all the tabs will be opened when Firefox starts.
- 4. Click the **Close** button

# Bookmarks

When browsing the web you may want to come back to certain web pages again without having to remember the URL.

In Firefox, you can create *Bookmarks*, which are saved in the web browser and which you can use to navigate back to your picked web pages.

### Bookmarking a page

If you have navigated to a web page and would like to bookmark it for future visits, you will need to add the page as a bookmark.

There are two ways to bookmark a page:

- From the menubar, select **Bookmarks** and then **Bookmark This Page**. A window will open. Provide a descriptive name for the bookmark, and click the **Done** button.
- Press Ctrl+D. A window will open. Provide a descriptive name for the bookmark, and click the **Done** button.

# Navigating to a bookmarked page

To navigate to a bookmarked page, select the **Bookmarks** item from the menubar, and then click on your bookmark's name. Firefox should open the bookmark in the current tab.



You can also press Ctrl+B to display bookmarks in a sidebar on the left side of the browser window. Press Ctrl+B again to hide the sidebar

### Deleting a bookmark

If you would like to delete a bookmark that you have previously made, select the **Bookmarks** item from the menubar, and then right-click your bookmark's name. Firefox should open a popup menu for your bookmark. Select the **Delete** option from the menu. Your bookmark should then be deleted.

### History

Whenever you are browsing the web, Firefox is saving your browsing history. This allows you to come back to a web page that you have previously visited without needing to remember the page's URL, or even bookmarking it.

To see your most recent history, select the **History** item from the menubar. The menu should then display several of the most recent web pages that you were viewing. Click one of the pages to return to it.

To see history from an older time, press Ctrl+H. Firefox should open a "sidebar" on the left side of the browser window, which should contain your browsing history categorized as Today, Yesterday, Last 7 days, This month, and then monthly for the times before that.

Click one of the item categories in the sidebar to expand this category, and see the pages you've visited during that time period. Then, once you find the page you need, click its title to return to it.

You can also search for a page by its title. Enter a few letters, or a word, in the **Search** field at the top of the history sidebar. The sidebar should then display a list of web pages whose titles match your search words. Click on the title of the page you need to return to it.

If you would like to hide the history sidebar again, press Ctrl+H again.

# **Clearing private data**

# **Troubleshooting connection problems**

# Using a different web browser

# Reading and composing email

To send and receive email in Ubuntu, you can use the **Evolution** mail application. To start Evolution, open the **Applications** menu, then choose **Internet** and then **Evolution Mail**.

In addition to email, Evolution also can help manage your contact list, your calendar, and a list of tasks.



You do not need to use Evolution if you are using a webmail system, such as Yahoo Mail, Hotmail, or Gmail. To access these services, use the Firefox web browser to access them on the web.

# Running Evolution for the first time

When you start Evolution for the first time, you will need to configure it to connect to your email account.

When Evolution starts you should see the "Evolution Setup Assistant" window, welcoming you to Evolution. Click the **Forward** button to continue with the setup.

Next, on the "Restore from backup" screen, Evolution may ask you to restore from a previous backup. Since this is the first time you are running Evolution, you can click the **Forward** button to skip this step.

On the next screen, "Identity", you need to enter your name and the email address you wish to use with Evolution. Enter your full name in the **Full Name** field, and the full email address in the **Email Address** field. You can fill in the optional information, or leave it unchanged if you desire. Click the **Forward** button when you are done.

Next, you should see the "Receiving Email" screen. On this screen, you need to provide Evolution with the details of your email servers. If you do not know these details, you will need to ask your network administrator or check with your email provider.

There are two common types of internet email connections: IMAP, and POP. These are described below. In work environments there are sometimes other types, such as Microsoft Exchange or Novell GroupWise — for more information on those types of connections, please see the documentation for Evolution.

#### Setting up an IMAP connection

IMAP connections allow you to manage your email remotely — the actual email and folders reside on your email server, while Evolution allows you to view, edit, and delete the messages and folders as needed.

If your email provider recommends an IMAP connection, select **IMAP** in the **Server Type** field. In the **Server** field, enter the internet name of your mail server. For example, **imap.gmx.com**. In the **Username** field, enter the username that you use to log into your email system, for example **joe.x.user**.

Your email provider may specify the security settings you will need to use in order to receive email. If your connection does not use security, leave the Use Secure Connection field set to No encryption. Otherwise, select either TLS encryption or SSL encryption as recommended by your email provider.

After selecting these options, click the **Forward** button to proceed to "Receiving Options" screen. While it is normal to leave all options unselected, you may want to select the **Check for new messages** option to have Evolution automatically check email on a regular basis.

When you are finished setting the options, click the **Forward** button to continue to the next screen.

#### Setting up a POP connection

POP connections let you manage your email locally — Evolution will connect to your email provider and download any new messages you may have received, and store them in folders on your computer. The messages will be deleted off the server.

If your email provider recommends an POP connection, select **POP** in the **Server Type** field. In the **Server** field, enter the internet name of your mail server. For example, **pop.gmx.com**. In the **Username** field, enter the username that you use to log into your email system, for example **joe.x.user**, or **joe.x.user@gmx.com**.

Your email provider may specify the security settings you will need to use in order to receive email. If your connection does not use security, leave the Use Secure Connection field set to No encryption. Otherwise, select either TLS encryption or SSL encryption as recommended by your email provider. After selecting these options, click Forward to proceed to the next screen.

After selecting these options, click the **Forward** button to proceed to "Receiving Options" screen. While it is normal to leave all options unselected, you may want to select the **Check for new messages** option to have Evolution automatically check email on a regular basis.

You may also wish to adjust the Message Storage options, which determine what Evolution does after downloading email to your computer. Select the **Leave messages on server** option to have Evolution keep the messages on your email system after downloading them. This will allow you to use another computer to redownload all of your new messages. Select the **Delete after 7 days** option to have Evolution keep the messages for a few days, and delete them after a while. You can adjust the number of days that Evolution keeps the messages.

When you are finished setting the options, click the **Forward** button to continue to the next screen.

#### Setting up your Sending options

The next screen should be the "Sending Email" screen. Here, you will need to configure your connection for sending email through your email provider.

The most common type of sending connection is SMTP, which is the default server type selected.

In the **Server** field, type in the name of the outbound mail server (also known as the SMTP server), as described by your email provider. For example, **mail.gmx.com**.

If your email provider requires authentication, select the **Server requires authentication** option. This is common for commercial email providers. In the "Authentication" section of the screen, select the type of authentication from the **Type** field — the most common authentication type is "PLAIN". Type your username in below, in the **Username** field, for example **joe.x.user**, or **joe.x.user@gmx.com**.

Your email provider may specify the security settings you will need to use in order to send email. If your connection does not use security, leave the Use Secure Connection field set to **No encryption**. Otherwise, select either **TLS encryption** or **SSL encryption** as recommended by your email provider.

After selecting these options, click Forward to proceed to the next screen.

#### **Finalizing account options**

On the next screen, "Account Management", enter in a descriptive name for this account. If you plan to use more than one email provider with Evolution, you will use this name to distinguish between the different accounts.

When finished, click the **Forward** button. This will bring you to the "Done" screen. If you believe that you've entered the correct options, click the **Apply** button to finish setup. Otherwise, click the **Back** button to go back one or more screens to correct your settings, or the **Cancel** button to abort setup and discard your account settings.

After you finish setup, Evolution may ask you if you would like to make it your default email client. Click the **Yes** button if you plan on reading and sending email only with Evolution. Click the **No** if you plan on installing or using a different email program.

# Around the Evolution workspace

The Evolution window is divided into four parts. At the top are the menubar and toolbar. The menubar lets you access most of the functionality of Evolution, while the toolbar provides some convenient shortcuts to some of the most frequently used features.

On the left side of the window is the folder list. Every message that you send or receive will reside in one of the folders in this list.

Below the folder list on the left side of the window are the Mail, Contacts, Calendars, Tasks, and Memos buttons. When working with email, the Mail button is selected. The other buttons take you to other parts of Evolution.

On the right side of the window are the message list, and the message preview beneath it. The message list shows all of the messages in the currently selected folder, or matching your search request. The message preview shows the contents of your currently selected message in the list above the preview.

#### Understanding the folder list

The folder list is the way that Evolution separates and categorizes your email. The first group of folders in the list is titled "On This Computer". This set of folders are you *local* folders — they reside on your computer only. If you use POP servers to retrieve your email, any new message will be placed in the **Inbox** local folder.

You can click on any folder to see its contents appear in the message list on the right side of the window.

Each of the initial folders in the list is special:

Inbox stores your incoming messages.

- **Drafts** stores messages that you've worked on, but have not yet sent.
- Junk stores messages that have been identified as being junk. Junk mail is also known as "spam".
- **Outbox** contains messages that you've finished composing, but which have not been sent yet. For example, if you are working on your email while offline (such as in an airplane), you can still click the **Send** button on an email message that you finish writing. The message will be moved to the Outbox, and will remain there until the next time you are able to send and receive messages. Once you can send and receive messages, all email messages in the outbox will be sent out.
- Sent contains copies of messages that you had sent. Once a message from an Outbox is sent, it is copied to the Sent folder.
- **Templates** stores email message templates partial messages that you have composed and saved as templates. You can use a message stored in the template folder as a starting point for other messages.
- **Trash** contains messages that you have deleted. By default, the trash will be emptied every time you exit Evolution.

If a folder contains any unread messages, the folder's name will be displayed in bold, and the number of unread messages will be displayed in parentheses following the folder name.

If you use an IMAP server to retrieve your email, then your remote IMAP folders will be shown in the folder list below the "On This Computer" section. The list of remote folders will be shown with a heading of the name that you have given to the account. With IMAP, your email messages will arrive in your remote Inbox.

Towards the bottom of the folder list, Evolution will show a list of "Search Folders". These are special folders that represent certain messages that match search rules. Please see the section on Finding Messages for more on search folders.

#### **Managing folders**

In addition to the initial folders, you can create your own folders to manage your email.

To create a new folder, choose the **Folder** menu, and then choose **New**. Type in a name for the folder that you would like to create. Then, from the list of folders below, select the *parent* folder. For example, if you would like your new folder to be placed under the Inbox then select the Inbox folder. If you select "On This Computer", then your new folder will be placed under "On This Computer" in the folder list.

Once you've made your selection, click the **Create** button to create the folder. Your new folder should now be in the folder list.

You can move folders that you have created. To do so, click on the folder that you would like to move, hold down the mouse button, and drag the folder to a new parent folder. Once the mouse cursor highlights a new parent folder, release the mouse button to finish the move. You can also right click on a folder, and select the **Move...** option. Then, select the new parent folder, and click the **Move** button.

To delete a folder, right click on the folder and select the **Delete** option. To confirm that you want to delete the folder, click the **Delete** button.

# Checking and reading messages

#### **Checking mail**

When you finish setup, or when you start Evolution in the future, Evolution will first try to connect to your email provider to check your email. In order to connect, Evolution will need to know your email account password, and will ask you for it.

#### MISSING SCREENSHOT

#### "enter password" dialog

In the "Enter Password" window, enter your password and click the "OK" button. If you wish for Evolution to remember this password and not ask you in the future, you can select the **Remember this password** option.

#### Listing messages

The top right portion of the Evolution window is the message list. Here, you can see email messages for your currently selected folder, or matching your search terms.

#### MISSING SCREENSHOT

#### Small view of the message list, showing column headers and a few email messages

By default, the message list shows six columns of information for each message. The first column is a read/unread indicator. If a message has been read, the column shows an icon of an open envelope. If a message has not been read, the icon will show a closed envelope.

The second column is an attachment indicator. If a message contains an attached file, Evolution will show an icon of a paperclip in this column. Otherwise, the column will be blank.

The third column is an importance indicator. If someone sends you a message marked with high importance, Evolution will show an exclamation mark in this column. Otherwise, this column will be blank.

The fourth column contains the sender of the message. Both the name and email, or just the email address, may be displayed in this column.

The fifth column contains the subject of the email message.

Finally, the sixth column is the date that the email was sent.

When you click on a message, its contents will be displayed in the preview pane below the message list. Once you select a message by clicking it, you can click the **Reply** button in the toolbar to begin composing a reply message to be sent to the sender, or click the **Reply to All** button to begin composing a reply message to be sent to the sender and other recepients of your selected message.

You can also click the **Trash** button in the toolbar in order to put the message in the Trash folder, or the **Junk** button to put the message as in the Junk folder. Note that Evolution, or your mail server, may automatically classify some mail as Junk.

In addition to the buttons on the toolbar, you can right click a message in the list. Evolution will open a menu with actions that you can perform for the message.

Sometimes, you may wish to take an action on multiple email messages (for example, delete multiple messages, or forward them to a new recepient). You can do this in Evolution by holding down the Ctrl key while clicking multiple messages — the messages you click will be selected. You can also click one message to select it, then press and hold the Shift key and click on another message in the list. All messages in the list between the original selection and the one you just clicked will be selected. Once you have multiple messages selected, right click on one of them to perform your desired action.

Directly above the message list are the **Show** selector, and the search options. You can use the **Show** options to filter your view to show only unread messages, or only messages with attachments, etc.

The search options will be covered in a later section.

#### **Previewing messages**

When you select an email message, its contents will be shown in the preview pane below the message list.

The top of the preview pane will show the message header, which contains the sender, recepients, and subject of the message, as well as the date the message was sent. Below the header, Evolution shows the contents of the message itself.

If a message was sent with HTML formatting, some of the images may not be displayed when a message is previewed. To display the missing images, select **View** from the menubar, then **Load Images**, or press **Ctrl+I**. If your internet connection is active, the missing images should then load.

### **Opening messages**

At times, you may want to display multiple messages at the same time. To do so, you can open each message in a separate window instead of just viewing it in the preview pane.

The open a message in its own window, double click a message in the message list. The message should then open in a separate window. You can go back to the message list and open another message, if needed.

Note that loading images may provide a way for the sender to track your receipt of the message. We do not recommend loading images in messages that you suspect are Junk.

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Finding messages

Subscribing to IMAP folders

Composing and replying to messages

Composing new messages

Replying to messages

Using signatures

# Staying organized

Managing your contacts

Adding or editing a contact

Searching for contacts

Managing your schedule

Viewing your calendar

Adding a new event

Working with others

Keeping a task list

Adding a task

**Completing a task** 

# Using instant messaging

Instant messaging allows you to communicate with people you know in real time. Ubuntu includes the **Empathy** application that lets you use instant messaging features to keep in touch with your contacts. To start Empathy, click **Applications** from the menubar, then choose **Internet** and then **Empathy IM Client**.

Empathy lets you connect to many instant messaging networks. You can connect to AIM<sup>TM</sup>, Gadugadu, Google Talk, Groupwise, IQC®, Jabber®, MSN®, Myspace®, qq®, XMPP<sup>TM</sup>, Sametime®, Silc, SIP, Yahoo®, or Zephyr.

# Running Empathy for the first time

When you open Empathy for the first time you will need to configure it with the details of your instant messaging accounts.

When Empathy starts you will see the "Welcome to Empathy" window. Choose the option corresponding to your situation.

#### You have an account

If you have an account that you have used previously with another instant messaging program then select the **Yes**, **I'll enter my account details now** option. Then, click the **Forward** button to continue.

On the next screen, choose your account type from the drop down box below **What kind** of chat account do you have?. Then, enter your account details in the field below.

Depending on the account type that you choose, Empathy may request that you enter a username, or an ID for your account, followed by a password.

If you do not remember your account information, you will need to visit the website of the instant messaging network to retrieve that information.

If you have another account to add then select the **Yes** option, and click the **Forward** button to repeat the above process. When you have entered all the accounts leave the **No**, **that's all for now** option selected, and click the **Apply** button to finish the setup process.

Next, Empathy should display the "Please enter personal details" screen. If you choose to fill out this information, you will be able to communicate with people who are on your local network either at home or in an office.

Enter your first name in the **First name** field, and your last name in the **Last name** field. Type in a way that you would like to be identified on your local network in the **Nickname** field. When you have filled all of the information, click the **Apply** button.

If you don't want to communicate with people on your local network, select the **I don't** want to enable this feature for now option and click the **Apply** button.

#### You would like an account

If you don't have an account that you can use, then you can create one by selecting the **No**, **I** want a new account option. Click the Forward button to display the next set of options.

Choose the account type that you would like to create from the drop down below **What kind of chat account do you want to create?** You can create either a Jabber<sup>®</sup> or a Google Talk account.

Next, enter the account name that you would like in the text field, and in the proceeding text field enter a password of your choice. If you would like to set up another account then select the **Yes** option, and repeat the above process.

When you have entered all the accounts leave the **No**, **that's all for now** option selected, and click the **Forward** button.

**Note:** If you wish to create another account type then you will need to visit the relevant website and follow the "You have an account" section. Empathy should display the "Please enter personal details" window. Providing this information allows you to communicate with people who are on your local network either at home or in the workplace.

Enter your **First name** in the text field, and enter your **Last name** in the next field. In the **Nickname** field enter a nickname by which you would like to be identified. When you have filled all of the text fields click the **Apply** button to save your settings.

If you don't want to talk to people on your local network then select the **I don't want** to enable this feature for now option and click the **Apply** button.

#### You want to talk to people nearby

If you would only like to communicate with people on your local network either at home or in the workplace, then you should select the **No**, **I** just want to see people on-line nearby for now option.

Click the **Forward** button to display the next set of options. Then enter your **First name** in the text field, and enter your **Last name** in the next field. In the **Nickname** field enter a nickname by which you would like to be identified. When you have filled all of the text fields, click the **Forward** button.

### Changing account settings

If you need to add more accounts after the first launch, then click the **Edit** then **Accounts**. Empathy will then display the "Accounts" window.

#### Adding an account

To add and account click the **Add** button. Empathy should display some options on the right hand side of the window. Choose your account type from the **Protocol** drop down. Next, enter your account name in the first text field. Then enter your password in the **Password** text field. Finally click the **Log in** button to save and verify your settings.

#### Editing an account

You might need to edit and account if you change the password or get the password wrong. Select the account you want to change on the left side of the "Accounts" window. Empathy should show the current settings for the account. Once you have made your changes, click the **Save** button.

#### Removing an account

To remove an account select the account on the left hand side of the window and click the **Remove** button. Empathy should open the "Do you want to remove" window. Click the **Remove** button to confirm that you want to remove the account, or the **Cancel** button to keep the account.

# **Editing contacts**

#### Adding a contact

To add an account click the **Chat** menu, then click **Add contact**, this opens the "New Contact" window.

In the **Account** dropdown choose the account that you want to add the contact to. Your must add you contact to an account type that matched theirs.

For example if your contact's address ends in "@googlemail.com" then you will need to add it to an account that ends in "@googlemail.com". Likewise if the contact's e-mail ends in "@hotmail.com" then you would need to add it to an account ending in "@hotmail.com".

When you have chosen the account that you wish to add the contact to, you will need to add either their login id, username, screen name or e-mail address to the **Identifier** text field.

Then in the **Alias** text field enter the contacts name as you would like to see it in your contact list. Click the **Add** button to add the contact to your list of contacts.

#### **Removing a contact**

Click the contact that you want to remove and then click the **Edit** menu, then click **Contact**, then click **Remove**. This will open the "Remove contact" window.

Click the **Remove** button to confirm that you want to remove a contact, or click the **Cancel** button to keep the contact.

#### **Communicating with contacts**

### Text

To communicate with a contact, choose the contact in Empathy's main window and double click their name. Empathy should open a new window where you can type messages to your contact, and see a record of previously exchanged messages.

To send a message to the contact, type your message in the text field below the conversation history.

When you have typed your message press the **Enter** key to send the message to your contact. If you are talking to more than one person then all of the conversations will be shown in tabs within the same window.

#### Audio

If your contact has audio capabilities then there will be an icon of a microphone next to their name. Click the microphone icon to open a menu. Select the **Audio call** option from the menu. Empathy should then open the "Call" window.

This window shows your picture on the right and your contact's picture on the left. Ensure that your microphone and speakers are connected, and proceed with the audio conversation. You can finish the conversation by pressing the **Hang up** button.

#### Video

If your contact has video chat capabilities then there will be an icon of a webcam next to their name. Click the icon to open a menu. Select the **Video call** option from the menu. Empathy should then open the "Call" window.

This window shows your webcam view in the top right and your contact's webcam will be in the middle.

If you don't have a webcam then your picture will be shown instead. You can finish the call by choosing the **Hang up** button.

# Sending and receiving files

#### Sending a file

When you are in a conversation with a contact and you would like to send them a file, click the **Contact** menu and then click **Send file**.

Empathy should open the "Select file" window. Find the file that you wish to send and click the **Send** button. A "File Transfers" window will open showing the chosen file and its transfer progress.

When the file transfer is complete, you can close the "File Transfers" window.

#### Receiving a file

When a contact wants to send you a file, the status icon to the left of the contact's name will flash with an icon of a paper plane.

To receive the file double click the contacts name. Empathy will open the "Select a destination" window. Choose a location where you would like Empathy to save the file, and click the **Save** button. Empathy should open the "File Transfers" window.

The "File Transfers" window shows you the progress of current file transfers. You can stop file transfers by clicking the **Stop** button, open transferred files by clicking the **Open** button, and clear the list of completed transfers by choosing the **Clear** button.

# Changing your status

You can use your status to show your contacts how busy you are or what you are doing. You can use the standard statuses, which are "Available", "Busy", "Invisible" and "Off-line". These can be changed in the main Empathy window from the drop down at the top of the window.

The same drop down lets you set a custom status by choosing "Custom Message..." next to the icon thats matches your status. Type what you would like your status to say, and click the green tick.

# Changing your picture

Your picture is what your contacts will see next to your name in their contact list. The default picture is the outline of a person. You can change your picture by choosing the **Edit** menu, then choosing **Personal Information**.

Emapthy should open the "Personal Information" window. From the **Account** drop down choose the account that you want to change, then click the picture on the right hand side of the window.

Empathy should open the "Select Your Avatar Image" window. Find the file cotnaining your picture, and click the **Open** button. If you would like to return it to the default click the **No Image** button instead.

# Viewing and editing photos

To view and edit photos you can use a program called F-spot this can be found by clicking the **Applications** menu, then **Graphics**, then **F-spot Photo Manager**. When you launch F-spot for the first time you will see the "Import" window, how to use this is covered in **'Importing'**.

F-spot displays your photos by date you can view photos from a specific month by clicking that month in the time line near the top of the window.

You can play slide shows of you pictures by clicking the green play triangle.

A lot of this guide refers to the side bar on the left if you can't see it click the **View**, then click **Componets** and choose **Sidebar** making sure the option box is seleted.

#### Version system

So when you edit a photo F-spot creates a new version so that the original is not lost. You can create a new version by clicking the **Photo** menu, then **Create New Version...** This opens the "Create New Version" window. In the **Name** text field you can type what you would like to call the version and then click the **OK** button. A new version will have been created.

You can view previous versions by clicking the photo that you wish to view then clicking the **Edit Image** button. This changes the side bar on the left to the "Edit" side bar. In the bottom left the **Version** drop down allows you to choose previous versions of the photo.

You might want to rename a version so that you remember which version is which. To rename a version click the photo that you want to change, then click the **Edit Image** button. This changes the side bar on the left to the "Edit" side bar. In the bottom left the **Version** drop down choose the version of the photo that you want to rename. Then click the **Photo**, then click **Rename Version**, this will open the "Rename Version" window. Enter the new name in the **New name** text field, then if you want to rename the version click the **OK** button, if you don't want to rename the version click the **Cancel** button.

If when editing photos you may make a mistake and want to remove that version as you don't need it. To delete a version click the photo that you want to change, then click the **Edit** 

**Image** button. This changes the side bar on the left to the "Edit" side bar. In the bottom left the **Version** drop down choose the version of the photo that you want to delete. Then click the **Photo**, then click **Delete Version**, this will open the "Really Delete?" window. If you want to delete the version click the **Delete** button, if you don't want to delete the version click the **Cancel** button.

# Importing

When you launch F-spot for the first time you will see the "Import" window. After the first launch you can import more photos by clicking the **Import** button.

When you import only the photos that you have just imported are shown to show all of your photos click the grey **X** to the right of the blue **Find**.

#### Where f-spot save photos

When importing pictures in the "Import" the "Copy files to the Photos folder" depends on where the photos are saved.

If the "Copy files to the Photos folder" option is ticked then F-spot will copy the photos into the **Photos** folder which is within the **Pictures** folder. The pictures are then sorted by year, month and then date.

If the "Copy files to the Photos folder" option is un-ticked then F-spot will not copy the pictures into the **Photos** folder.

#### From file

To import photos that are saved on you computer click **Select Folder** from the **Import Source** drop down. This gives you the "Import" window, in this window navigate to the folder that the photos are in and click the **Open** button.

When the loading bar says "Done Loading" all the photos in that folder and any subfolders are then displayed in the "Import" window. You can exclude importing photos from sub-folders buy clicking the **Include subfolders** option so that the option is un-ticked.

All of the photos are imported by default, but you can choose individual photos by holding down the **Ctrl** key. Duplicates are automatically detected when the **Detect duplicates** option is selected.

You can attach tags by typing the names of the your current tags in the **Attach Tags** text field. If you want to use multiple tags then separate them with a comma.

Once you have chosen the photos that you want import click the **Import** button.

#### From digital camera

Plug your camera into the computer and turn the camera on a new window should pop up, check that **Open F-spot** is shown in the drop down and click the **OK** button. This will show the "Import" window, in the **Import Source** drop down click the option that looks like ...**Camera**.

A "Select Photos to Copy from Camera..." window will open, you can then click the photos that you want to copy. All of the photos are selected by default but you can add or remove individual photos by holding the **Ctrl** key.

You can attach tags to all of them by clicking the **Attach tag** option and choosing the tag in the **Attach tag:** drop down. For more information about tags see "Organizing photos"

You can change where the files are saved in the **Target location** drop down. The default is the **Photos** folder, this is where F-Spot saves the pictures.

Once you have chosen the pictures that you want to import click the **Copy** button. The "Transferring Pictures" window opens and shows the copying progress, when the copying is complete the progress bar will say **Download Complete**. Fianly Click the **OK** button to show the pictures in F-spot

# **Organizing photos**

F-Spot makes finding photos of the same type easier by using tags, you can apply as many tags to a photo as you like.

You can apply tags to photos by selecting the photos and then right click and move the mouse to **Attach Tag** and click the tag you want add. You can attach tags when importing photos this is covered in the "Importing" section.

You can make new tags by clicking the **Tags** and clicking **Create New Tag...** This will open up the "Create New Tag" window, type the name of the tag in the **Name of New Tag:** text field. The **Parent Tag:** drop down alows you to choose the tag that it is a sub-tag of.

# **Editing Images**

A photo might want to be edited to remove; something at the edge, discoloring, red-eye's or straighten a photo. To edit a photo click the one that you want to edit and then click the **Edit Image** button. This changes the side panel on the left of the "F-Spot" window. The panel shows eight options **Crop**, **Red-eye Reduction**, **De-saturate**, **Sepia Tone**, **Straighten**, **Soft Focus**, **Auto Color**, **Adjust Colors**. Some of these options are explained in more detail in the next section.

#### Crop

You might want to crop a photo to change the framing or remove part of the edge of the photo. Click the **Crop** on the left panel, then in the **Select an area to crop** drop down you can choose the ratio that you would like to crop with. You might want choose the ratio that matches the ratio that you print, so that the photo is not stretched.

You can create custom constraints if one of the defaults does not meet your requirements. This is done by choosing **Custom Ratios** from the **Select an area to crop** drop down. This gives you the "Selection Constraints" window, click add this will place a new entry on the left of the window.

Once you have chosen your constraint, move the cursor to one conner of the section that you want to keep. Click and hold the left mouse button and drag it to the opposite corner of the section that you want to keep. You can then let go of the mouse button.

To resize the box move the mouse until an arrow points to the side that you want to move. Click and hold the left mouse button, move the mouse until the edge is in the right place.

All ratios work in portrait and landscape mode, to change between you need to click the edge as if you were to resize the box. Moving the cursor between top right and bottom left switches between portrait and landscape.

#### **Red-eye Reduction**

If you have taken a photo and the flash caused the subject to have red-eye's this can be removed by first clicking the **Red-eye Reduction** button. Move the cursor to the one corner of the subjects eye and hold the left mouse button, then drag the cursor to the opposite corner and let go of the mouse button.

This box can be moved by moving the cursor into the middle until a hand is shown, then click and hold the left mouse button and move it into the correct place. When it is in the correct place you can let go of the left mouse button.

To resize the box move the mouse until an arrow points to the side that you want to move. Click and hold the left mouse button, move the mouse until the edge is in the right place.

When the box covers all of the red in one eye click the **Fix**. You will need to repeat the process for each of the subject's eyes that is effected. and a

#### Straighten

If you have a photo that you took an is at an angle then the click the **Straighten** button. Then move the slider until the picture is straight again. F-Spot will auto crop the picture to remove any white parts that occur due to the rotation. When you are happy that the picture is straight then click the **Straighten** button.

#### **Auto Color**

To automatically correct the coloring of the photo click the **Auto Color** button.

#### Exporting to web services

F-spot allows you to export you photos to a Web Gallery, Folder or CD and the following services; SmugMug<sup>©</sup>, PicasaWeb<sup>TM</sup>, Flickr<sup>TM</sup>, 23hq and Zooomr<sup>TM</sup>.

You can export to these services by chossing a picture and then clicking **Photo** the **Export to** and click the service that you require. This will open a window in which you can enter your account name and password, then you will be able to upload pictures.

# Watching videos and movies

\$ sudo /usr/share/doc/libdvdread4/install-css.sh

# Listening to audio and music

# 4 Preferences and Hardware

# Using your devices

# Keyboard and mouse

The keyboard and mouse are essential input devices for a large number of computer users today. Being a very common piece of kit for many computer users has led to some variation in the mouses and keyboards on offer today. In this section we will look at the different settings of your keyboard and mouse which will be of great use to international users.

# Keyboard

The keyboard is likely to be one of the main ways that you interact with your computer. Without a keyboard this manual couldn't be written by the Ubuntu Manual team! Unfortunately not all keyboards are uniform in design, they can differ by country, by language or even by style. As an American if by mistake you purchase a keyboard from a UK retailer, then not only will you find that the

# **Displays**

# **Hardware Drivers**

A hardware driver is a small bit of code packaged in a file, which tells your computer how to utilize a piece of hardware. Every component in a computer requires a hardware driver to function, whether it's the printer, DVD player, hard disk, or graphics card. Your graphics device is the component in your computer that powers your display. When you're watching videos on YouTube or DVDs or simply enjoying the smooth transition effects when you maximize/minimize your windows, your graphics device is doing the hard work behind the scenes.

Majority of the Graphics Devices are manufactured by three well known companies: Intel®, AMD/ATI®and nVidia®corp. You can find your device manufacturer by referring to your computer manual or looking for the specifications of your particular model over the Internet. The Ubuntu Software Center houses a number of programs that allow detailed system information to be obtained. **SysInfo** is one such program that you can use to find relevant information about your System devices. Ubuntu comes with support for graphics devices manufactured by above companies, and many others, out of the box. That means that you don't have to find and install any drivers by yourself, Ubuntu takes care of it on its own.

In keeping with Ubuntu's philosophy, the drivers that are used by default for powering graphics devices are open source. This means that the drivers can be modified by the Ubuntu

developers and problems with them can be fixed. However in some cases the proprietary driver (restricted driver) provided by the company may provide better performance or features that are not present in the open source driver written by the developer community. In other cases, your particular device may not be supported by the open source drivers yet. In those scenarios, you may want to install the restricted driver provided by the manufacturer.

For both philosophical and practical reasons, Ubuntu does not install restricted drivers from the start but allows the user to make an informed choice. Remember that restricted drivers, unlike the open source drivers for your device, are not maintained by Ubuntu. Problems caused by those drivers will be resolved only when the manufacturer wishes to address them. To see if restricted drivers are available for your system, click **System** in the top panel, go to **Administration** and find **Hardware Drivers**. If a driver is provided by the company for your particular device, it will be listed there. You can simply click **Activate** and use the driver if you want. This process will require an active Internet connection and will ask for your password.

The Ubuntu developers prefer open source drivers because they allow the problem to be identified and fixed by anyone with knowledge in the community. Ubuntu development is extremely fast and it is a good chance that your device will be supported by open source drivers. You can use the Ubuntu Live CD to check for your device compatibility before installing Ubuntu or go online in the Ubuntu forums to ask about your particular device. Another useful resource is the official online documentation (help.ubuntu.com), which contains detailed information about various graphics drivers and known quirks.

### Setting up your Screen Resolution

One of the most common display related tasks is setting up your screen resolution. Think of Screen Resolution in terms of displayable information on the your monitor/LCD; the higher the resolution, the better the result. Your monitor/LCD has a "native resolution", which is the highest resolution it designed to work at. Ubuntu correctly identifies that screen resolution by itself and sets it for you. However, due to a huge variety of devices out there, sometimes it can make a mistake and set up an undesirable resolution.

To set up or just check your screen resolution, go to **System**. Click **Preferences** and find **Display**. The Display application shows you your monitor name and size, the screen resolution and refresh rate. Clicking on the displayed resolution for e.g.  $1024 \times 768$  (4:3), would open a drop-down menu from where you can select the resolution of your choice.

# Connecting and using your printer

Sound USB drives Burning CDs and DVDs

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Using a webcam Scanning text and images Other devices Firewire Bluetooth

# 5 Software and Packaging

# Software Management in Ubuntu

One of Ubuntu's main objectives is to deliver you the applications that you will need in a system-standard way, so that you can have software that is secure, stable and up-to-date, installed easily and rapidly. That is why Ubuntu uses an advanced software management system.

# **Differences With Other Operating Systems**

In other operating systems, to install a package you would normally obtain an installer file, from a CD or a download site on the Internet, and run it to install an application.

In Ubuntu, the same principle is followed, but the process varies a bit. To obtain a package, you just need to open the **Software Center**, and install the application you want with the click of a button. There are more than 25,000 packages available that you can install. All free and open-source. Find out more about **Software Center** in the respective section.

You will now probably wonder *which* applications will you be able to install. Well, Ubuntu's software all comes from **repositories**. After a clean install you will have only the official Ubuntu repositories in your **software sources**, but later on you can add as many repositories as you want. Learn how to in the **Software Sources** section.

# Package managers make your life easier

Package managers—like the **Software Center**—are the applications that interact with the repositories. The package managers will let you search for, view information about, install and remove applications, at least. Other additional actions or information you will be able to reach depend entirely on the package manager you are using.

The principal package managers that Ubuntu provides are the **Software Center** and the **Synaptic Package Manager**. To find out more about them, read the respective sections in this chapter.

# **Different Ways to Obtain Software**

Even though Ubuntu uses a systematic way to obtain software, that does not mean that it is the only way to do it. You can obtain your software through the following sources:

1. Official repositories, which is the standard method to get software. By getting software through the official repositories you ensure that your software is free of viruses or any other malware, that it is stable, and that it works with Ubuntu.

- 2. Third-party repositories that you can add to expand your software sources. Now, these repositories are not as convenient as the official ones: that the owner can put into them whatever he wants; there is no solid guarantee that the software inside them is secure, stable, or that it works with your system. Read more instructions on this matter at Software Sources.
- 3. Installers / Deb packages that you can download from software websites, CDs, USB drives, etc. This method is the most insecure of all. You should only obtain software this way when you trust the source. If you are new to Linux, then you are probably accustomed to obtain software this way.

# Software Center

The **Software Center** is Ubuntu's main package manager. The main appeals of the **Software Center** are that it is a simple, organized, and intuitive package manager. It is designed with the purpose of requiring no guide or manual to its usage; however, we will guide you through some simple operations below.

First off, to open the **Software Center** go to **Applications ≻ Ubuntu Software Center**.

# **Installing Software**

Now, installing applications, is two mouse clicks away. Once you find the software you are looking for,

- 1. Click on the → button to the right of the selected application. You will be taken to the application's profile page. If you want to go back, you can click on the buttons on the top, they will most likely look like this: Get Free Software > Selected Category > Selected application.
- 2. Click the **Install** button. If you are not running as root, you will be asked to input your password. If your authentication was granted, you will be taken to the **In Progress** section while your application is installed.
- 3. Wait until the application is finished installing. When operations—such as application installations and removals—are currently running, you will see an animated icon of rotating arrows to the left of **In Progress** section in the sidebar, and parentheses enclosing the number of uncompleted operations. While the application is installed, you can read details about the current operation, watch the progress bar fill out, or click the **<stock-cancel>** icon to cancel the operation.

Now you can run your application. Depending on the use of it, it will appear on the **Applications** menu, **System > Administration** or **System > Preferences**.

**Note:** If your password does not work, you are probably not permitted to install software on the computer. If you have further problems, please go to Kapitel 9: Problembehebung.

# **Removing Software**

If you thought installing an application was easy enough, try removing one.

To remove an application, follow this instructions:

- 1. Find the application you want to remove (either by using the search bar or by filtering through categories).
- 2. Go to its page by clicking on the  $\rightarrow$  button to its right, on the application list.
- 3. Click the **Uninstall** button. If you are not running as root, you will be asked to input your password. If your authentication was granted, you will be taken to the **In Progress** section while your application is installed. Your application will now be either in process of removal or waiting in line for it, in the **In Progress** section.

Now, as with when you install a new application, when you remove one the menus get updated too. This is one of the assets of having an organized software management system on your side.

### Making More Software Available

The **Software Center** will only list the applications available in the repositories of your software sources. To add more, or learn more about this, visit the **Software Center** section.

# Synaptic Package Manager

The **Synaptic Package Manager** serves practically the same purpose as the Ubuntu Software Center. Continue reading and you will determine whether you should use this application or the **Software Center** application in the previous section.

The **Synaptic Package Manager** is the most complete visual package manager available in Ubuntu. Through it, you will be able to access any package in your repositories; not just user applications.

This application will come in handy when you are looking to perform actions other than just installing and removing packages. The **Synaptic Package Manager** lets you:

- **Install** any package in your repositories. You can even select which version of a package to install, but note that this option is not available for all the packages.
- **Reinstall** in case the package's contents have been damaged, or you just want to get the default version back.
- **Update** every time a new version of the package is released.
- **Remove** any package you no longer need.
- **Purge** when you wish to remove completely a package, including saved preferences and stored configuration files.

Note: You can open Software Sources from the Software Center. Simply go to Edit > Software Sources.

**Note:** If you are not very familiar with advanced computing in Ubuntu you may probably want to stick with the **Software Center**.

- **Fix** broken packages.
- Check properties of any package, such as version, contained files, package size, dependencies, and much more.
- **Read and save** markings in your computer.

# Usage

Using this package manager is very simple once you understand the principle behind it. Ideally, you will mark different actions to perform on different packages first, and then apply your changes. When you click the **Apply** button, the **Synaptic Package Manager** will do each of your marked actions, one by one. Then you will be free to close the application, or wait until the process is complete to make more changes.

To open the Synaptic Package Manager go to System > Administration > Synaptic Package Manager.

#### **Finding What You Want**

If you are having difficulties finding the package you are looking for, you may try the **Quick** search box, the Search button (which opens a search dialog) or sort by the categories in the left side pane.

You can use the **Reload** button when you have made changes to your software sources, such as adding or removing repositories, so that the package manager can notice the changes and act accordingly.

#### **Applying Your Changes**

Once you find the package you are looking for, you can just open its right-click menu and there you will see listed all the actions you can perform on it. You can alternatively access these options through the **Package** menu.

When you are ready marking actions, click the **Apply** button and wait until the changes are made. Afterwards, you can close the application or mark more changes.

# **Software Sources**

The **Software Center**—or the package manager you are using—will list only applications that are available in the repositories of your software sources. You can add or remove repositories to your software sources with the **Software Sources** application.

To start off, lets open the **Software Sources** application in the **System > Administration > Software Sources**.

# **Configuring the Ubuntu Repositories**

Ubuntu has four main repositories—which classify as the *official repositories*—with different kinds of packages each. Read below what area does each repository cover.

- **Canonical-supported open source software (main)** This repository contains all the open source packages that Canonical—the company behind Ubuntu—helps maintain.
- Community-maintained open source software (universe) This repository contains all the open source packages that the community—the users of Ubuntu—helps maintain, or creates and convince Canonical that their software is good enough as to be in an official repository.
- **Propietary drivers for devices (restricted)** This repository contains all the drivers available to devices or hardware you may use with your computer.
- Software restricted by copyright or legal issues (multiverse) This repository contains all other software that, as the name suggests, might be illegal to use in some places. However, you can still use it if you enable this repository, under your own responsibility.

The **Source code** checkbox should not be enabled unless you are used to building applications from source.

#### Selecting the Best Software Server

Ubuntu grants permission to many servers all across the world to host exact copies of the Ubuntu official repositories. Ubuntu does this so that, wherever you are, you may have a server that is close to you to guarantee the best connection possible.

If your downloads are slow, you might be getting your software from the wrong server. There are some aspects you should consider before selecting your server:

• **Connection speed**. Depending on the physical distance between you and your server, the connection speed may vary. Luckily for you, Ubuntu had though about this long ago, and thus provides a tool to select the server to which your computer connects the best.

To select the fastest server available for you, click the combobox of the current server and select the **Other** menu option. After you are taken to the server selection window, click on the **Select Best Server** button, to the upper right. You will have to wait for your computer to connect to all the servers and then select the server with which it had the fastest connection.

**Location**. Unless you want to use your country's Ubuntu server just because, your server's location should only be relative to the speed of the connection with it.

To select a server by country, click on the combobox of the current server. A window with all the countries with Ubuntu servers and the respective servers registered to them, will appear. Have fun.

Security. This should not concern you at all, now that Ubuntu knows well who it trusts enough as to grant a copy of the repositories. However, if you still think you might be at risk with just any server, you could select one of the Ubuntu secure servers, such as the Main server or the http://ubuntu.securedservers.com server.

If you are not connected to the internet, you may insert your CD to your computer and select the checkbox in the **Installable from the CD-ROM/DVD** box. Expect no more than the **Cdrom with Ubuntu 10.04 'Lucid Lynx'** inside the box.

# **Configuring Updates**

Because Ubuntu is a *very* customizable operating system, it lets you specify which kinds of updates you will want to be getting. To customize your updates, go to the **Updates** tab, in your **Software Sources** window.

# **Ubuntu Updates**

This is where you specify which kinds of updates you will like to get installed in your system. If you have doubts about any of the options, read a description of each below:

- **Important security updates** These ensure that you get all the updates that make Ubuntu such a secure operative system time and time again when they are released. As the title suggests, it is important that you enable these updates.
- **Recommended updates** These updates are not mandatory or important, but if you wish to keep your whole system up-to-date, you should consider them.
- **Pre-released updates** These updates are for those who just cannot wait whenever new versions of applications are out. Note that these updates have not being tested enough, so you may encounter problems with the updated applications. However, if you did encounter a problem, you could easily roll-back to the previous version, using the **Synaptic Package Manager**.
- Unsupported updates These are the updates that the Ubuntu staff has not reviewed.
  Even though they are secure, as with the previous ones, you may encounter problems when using them.

# **Automatic Updates**

Here you can customize your system's behavior towards updates. You can customize whether it checks for updates or not, if it should install important updates right away (without asking for your permission), if it should only download them, or if it should only notify you about them. You can also customize the frecuency with which your system checks for new updates.
### **Release Upgrade**

Here you can customize which kind of system upgrades you will like to have available.

- Never Choose this if you don't want to be notified about new Ubuntu releases, at all.
- Normal releases Choose this if you always want to have the latest Ubuntu relase, no matter if it is long-term-support or not. This option is recommended for normal, home users.
- Long term support releases only Choose this option if you need a release that will have-as the title suggests-support for a long time. If you own a company and you have Ubuntu as the operating system for your employees, you probably want to select this option.

## Adding More Software Repositories

As you have probably read before in this chapter, there is a way that you can get software, from a package manager, from third-party—or non-Ubuntu—repositories. These "third-party repositories" are called **PPA**s.

To add a PPA to your software sources, go to the **Other Software** tab in the **Software Sources** window.

### What You Will Need

- 1. The PPA intelligent url. To get it, go to the project owner's launchpad page, whether it is a team or a single launchpad user. When you are taken to the page, look for a header labeled "Personal Package Archives"; click on the link to the one that best matches the project you are trying to add a repository of. Then, you will be taken to a page titled "PPA for (...)". Look for a link below, in bold font, similar to this one: **lp:package**. Thats your PPA intelligent url.
- 2. The key file. To get it, go to the same page where you got your PPA intelligent url. Now, instead of copying that url, click on **Technical details about this PPA** link. Then click the link below the "Signing key" header. Afterwards, make your last click on the 8-digit code. Copy all the text in the page and save it as a text file. That file is your key file.

### Adding the PPA and Authorizing the Key

After you have the requirements, adding a PPA is a two step procedure:

- 1. Add the PPA by clicking on the Add... button, and copying the PPA intelligent url to the APT Line input box.
- 2. Authorize the key by going to the Authentication tab (in the Software Sources window) and clicking the Import Key File... button. That will open up a browser for you; find your key file and you are done.

Before closing **Software Sources**, read the next section.

Note: Every 6 months, Ubuntu releases a new version of the operating system. These are called normal releases. Now, every 4 normal releases - or 24months, for that matter -Ubuntu releases a long term support release. Long term support releases, tagged as LTS releases, recieve extra effort from the developers so they can be more stable, and thus be used by companies that need extra-reliable software.

**Definition:** A **PPA** is a *Personal Package Archive*, or a third-party repository. The PPAs are spaces where people host digital projects, such as applications, documents, and many more.

**Note:** The key file is the security method used by Ubuntu to ensure that *you* are the one who is adding the PPA

## Getting Ready to Use It

Because Ubuntu needs to keep track of a long list—about 25,000 items long—of applications, it just does not attempt to update it with every small change you make. You have to update it every time you change a setting in **Software Sources**, such as adding a new repository/PPA.

Luckily for you, upon closing **Software Sources** you will be asked if you want to reload the software sources. To do so, click the **Reload** button. After **Software Sources** finishes reloading the database and closes itself, you will be able to access your package from any package manager.

# 6 System-Wartung

# Updating your computer

## **Cleaning Unused Packages**

Mit der Zeit kann Ubuntus Paketsystem »apt« einen ungenutzten Zwischenspeicher anlegen. Dieser Zwischenspeicher enthält gespeicherte Paketdaten von allen Paketen die jemals auf diesem System installiert wurden. Mit der Zeit kann dieser Zwischenspeicher sehr groß werden.

To clear out these cache stores you can either use the clean, or the autoclean option for **apt-get**. The clean command will remove every single cache item, where the autoclean command only remove cached items that can no longer be downloaded. Items that can no longer be downloaded are generally useless. To run these, head to a terminal and type:

#### \$ sudo apt-get clean

Es kann sein, dass Pakete mit der Zeit nicht mehr benötigt werden. Wenn ein Paket als Abhängigkeit eines bestimmten Programms installiert wurde, so wird das Paket nicht mehr benötigt, wenn das Programm entfernt wurde. Das heißt, das Paket wird nicht mehr gebraucht und kann mit der »autoremove«-Option entfernt werden.

Öffnen Sie eine Befehlszeile und geben Sie:

\$ sudo apt-get autoremove

ein, um die unnötigen Pakete zu entfernen.

### **Clearing The Package Cache**

## Performing a File System Check

# Teil II

# Weiterführende Themen

# 7 The Command Line

# understanding the terminal

## what is a terminal?

A terminal is the Ubuntu equivalent to a command prompt in windows. A terminal is the user interface that gives the user access to what is called a shell. One of the most popular of these and the one included by default in Ubuntu is BASH (Bourne Again SHell). It can be opened through the main menu by going to:

### Applications > Accessories > Terminal

This is what the default terminal looks like in Ubuntu 10.04 Lucid Lynx:

### MISSING SCREENSHOT

### Need a screenshot fo the default terminal here

Of course, while the default terminal is not very pretty it can be customized to suite your needs easily.

## using the command line

## navigating directories

The pwd command is short for Print Working Directory it is used to find out which directory you are currently in.

#### \$ pwd /home/your-username/

The cd command is short for Change Directory it is used to(you guessed it) change from one directory to another.

\$ cd /directory/you/want/to/go/to/

## getting a list of files

The ls command is used to get a list of all the directories and files in a directory.

```
$ ls directory1 directory2 file1.txt file2.txt
```

## moving things around

The mv command is used to move a file from one directory to another.

\$ mv /file/you/want/moved /directory/you/want/it/moved/to/

The cp command is used to copy a file from one directory into another.

```
$ cp /file/you/want/copied
/directory/you/want/it/copied/to/
```

### creating directories

The mkdir command is used to create new directories.

\$ mkdir name-of-new-directory

### deleting files and directories

The rm command is used to delete files.

```
$ rm file-you-want-deleted
```

The rmdir command is similar to the rm command except it is used to delete directories.

\$ rmdir /directory/you/want/deleted/

# changing system settings

## what is sudo?

When you first install Ubuntu two user accounts are created, the one that you created and one called the root account, which is created automatically for you. The root account has privileges to modify the core system files and settings. By using sudo, you can borrow these privileges for administrative work, such as installing or removing software, creating or removing new users and modifying system files.

### MISSING SCREENSHOT

Need a screenshot of logging in as root here

You can find out more about using sudo in Kapitel 8: Sicherheit

# advanced command line use

# aptitude or apt-get?

# terminal vs shell: what's the difference?

There is an important difference between a terminal and a shell, a terminal provides input and output functionality and a shell processes the user's commands, the user accesses the shell through the terminal.

# 8 Sicherheit

This chapter introduces how to keep your Ubuntu computer secure.

# Why Linux is safe

In general Linux based systems such as Ubuntu are reasonably secure with setting installed by default. This is for a number of reasons:

- Linux has a clear divide between normal users and administrative users.
- Open source software allows security flaws to be easily detected.
- Security patches for open sources software are often released quickly.
- Many viruses target Windows based system and so do not affect Linux systems.

# **Security Basics**

This section describes basic security concepts and procedures.

## Sudo

Linux systems include a special user, root, which has full administration privileges. Where as a normal user can only access their own files and can not make changes to the system such as installing programs.

In Ubuntu the root account has been disabled to improve security and can not be used directly. Instead the initial user account created during the install process has permission to conduct administrative tasks by using the **sudo** command.

The sudo command allows a user to be given administration privilege for a specific task. The following example runs the apt-get clean command as an super-user:

\$ sudo apt-get clean

sudo should only be used when needed. Operations that can be completed without sudo should be executed as the normal user.

In addition to sudo the Ubuntu Desktop has a graphical version of sudo for programs that require administration permissions. For example if a during a system update the desktop is faded out and box asking for the user passwords appears; this is to grant administration privileges permission to the user.

Users must be given permission to use the sudo command, this can be done by adding users to the Admin group. See section Users and Groups for details of how to do this.

!

Only users that need administration access should be giving sudo permission. Do not give administration all users to make administration easier.

### **Basic Security Precautions**

### Separate User Accounts

When Ubuntu is installed, it is set up for a single person to use. If more than one person will use the computer, it is best for each person to have their own user account. This way each user can have separate settings, documents, and other files. If necessary, files can also be protected from being viewed or changed by other users without administrative privileges. See Users and Groups for how to add additional users.

#### Passwords

Strong passwords are one of the simplest ways to increase the security of your computer. Passwords should not use names, common words and phases.

By default the minimum length of a password in Ubuntu is 4 characters. This can be changed by executing the following command, where the number following min and max are the minimum and maximum length of a password.

\$ password required pam\_unix.so nullok obscure min=6 max=8
md5

Regularly changing passwords also help to improve security. A users passwords can be set to expire after a given time. The current settings for a user password can be view by executing the following command.

\$ sudo chage -1 username

The following commands can be used to change the expiry date of a password. Set the expiry date of the current password to 31st April 2010.

#### \$ sudo chage -E 04/31/2010 username

Set the maximum number of days for a password to 90.

\$ sudo chage -M 90 username

Set today as the last day for the current password.

\$ sudo chage -d username

The options of these commands above can be combined into a single command.

\$ sudo chage -E 01/31/2008 -M 90 -d username

### Locking the screen

When leaving your computer unattended lock the screen, this stops anyone using your computer and requires your password to unlock the screen. To lock the screen:

- Click the User Switcher in the top right of the panel and then press Lock Screen, or
- Press Control+Alt+L to lock the screen. This keyboard shortcut can be changed in System > Preferences > Keyboard Shortcuts.

### System Updates

Ubuntu provides software and security updates; these updates should be applied regularly. See Kapitel 6: System-Wartung for how to update your Ubuntu computer.

### **Automatic Security Updates**

Security Updates can be applied automatically. To do this:

- 1. Open Software Sources System > Administration > Software Sources.
- 2. Select the updates tab.
- 3. Under automatic updates, check the **check for updates** box and select the required frequency of updates.
- 4. Select Install Security updates without notification.

#### **Trusting Third Party Sources**

Normally adding applications to your computer is done using the Software Centre which downloads software from the Ubuntu repositories as described in Kapitel 5: Software and Packaging. However sometimes it is necessary to added software from other sources. For example when an application is not available in the Ubuntu repository or a newer version is needed to the one available.

Additional repositories are available from site such as nd Launchpad PPAs which can be added as described in Kapitel 5: Software and Packaging. Some applications can be downloaded as .deb packages from a the website of a project. Alternately applications may be built from the source code for the application.

Using recognised sources such as a projects website, PPA or community repositories such as s more secure than downloading applications from an arbitrary source.

Whenever using a third party source considered how trustworthy the source is and be sure you know what you are installing.

### **Users and Groups**

Linux systems, as with most PC Operating Systems, support multiple users accounts. This allows each user to have a separate user account. Linux systems also have user groups, every user is a member of one or more groups. Every user also has a group with the same name as the user, of which the user is a member. Files and folders can be set to be accessible by a user and a group. By default a users files are only accessible by the user and system files are only accessible by the root user.

### MISSING SCREENSHOT

### Screenshoots of User and Groups window

### Managing Users

Management of users and groups can be done using the User and Group administration application, System≻Administration≻Users and Groups

To make adjustments to the user and group setting click the keys icon next the word "Click to make changes". This will produce a promote for your password to grant sudo privileges while using the User and Groups application.

Adding a User Click the Add User button and complete the dialog which appears. Privileges granted to the new user can be changed in the **Privileges** tab, but in most cases the defaults privileges will be adequate. To create the user click the **OK** button.

**Modify a User** Double click on a user in the list of users or select a user and click the **Properties** button. Change the details as required in the dialog that appears. Click OK to apply the changes.

**Delete a User** Select a user from the list and click the **Delete** button. This will deactivate the users account, but not remove the home folder.

### Managing Groups

Click the Manage Groups button to open the group management dialog.

**Adding a group** To add a group click the **Add** button. In the dialog window that appears enter the group name and select the members of the group.

**Modifying a group** To alter the users in an existing group. Select a group and click the **Properties** button. Select and de-select the users as required and click OK to apply the changes.

**Deleting a group** To delete a group select a group and click delete.

#### **Applying Groups to Files and Folders**

To change the group of a file of folder open Nautilus and navigate to the file or folder which need the group to be changed. Then either select the folder and use the **File > Properties** menu item or right click on the file / folder and select **Properties**. In the Properties dialog that appears Click the the **Permissions** tab and select the required group from the **Groups** dropdown box, and select close.

### Using the Command Line

User and group management can also be achieved by using the command line. It is recommended you use the graphical method above unless you have good reason to use the command line. For more information see the Ubuntu Server Guide <a href="https://help.ubuntu.com/9.10/serverguide/C/user-management.html">https://help.ubuntu.com/9.10/serverguide/C/user-management.html</a>

# Setting up a Secure System

This section describes how to use additional security programs to increase the security of your system.

### Firewall

A firewall is used protect your computer against unauthorized access by people on the Internet or your network. Firewalls block connections to your computer from unknown sources, which helps to prevent security breaches.

Uncomplicated Firewall (UFW) is the standard firewall configuration program in Ubuntu. It is a command line program, but there is a graphical interface for it called Gufw. See Kapitel 5: Software and Packaging for how to install the Gufw package.

### MISSING SCREENSHOT

### GUFW Window with Add service window

Once installed started Gfuw **System > Administration > Firewall configuration**. To enable the firewall click the **Enable** check by default all incoming connections are denied. This should be suitable for most users.

If you are running servers on your system you will need to open the ports these services use. If you do not know what this means, then you are probably not running any servers and you should not open any ports.

To open a port click the **Add** button. For most usages the the **Preconfigued** tab can be used. Select allow from the first box and then select the program or service required.

The **simple**tab can be used to allow access on a single port and the **Advanced** tab can be used to allow access on a range of ports.

# Encryption

Ubuntu includes a number of tools to encrypt files and folders. Two common methods will be covered here. For further information on using encryption with single files and email see the Ubuntu Community Help https://help.ubuntu.com/community.

## Home Folder

During the install process it is possible to chose to encrypted a user home folder, see Kapitel 1: Installation for how to do this.

## **Private Folder**

If you have not chosen to encrypt a user home folder it is possible to encrypt a single folder in a users home folder named Private. To do this:

- 1. Install ecryptfs-utils.
- 2. Run ecryptfs-setup-private to setup the private folder.
- 3. Enter your login password when prompted.
- 4. Either choose a mount pass phrase or generate one.
- 5. Record both pass phrases in a safe location. These are required if you ever have to recover your data manually.
- 6. Logout and Log back in to mount the encrypted folder.

After the Private folder has been setup any files or folders in Private folder will be encrypted when written to the disk.

If you need to recover your encrypted files manually see https://help.ubuntu.com/community/EncryptedPrivateDirectory#RecoveringYourDataManually

# 9 Problembehebung

# **Resolving Problems**

Sometimes, things simply do not work as they are supposed to. From time to time, we have all encountered problems setting up and using our Ubuntu systems, but these glitches are generally easily fixed. Below, we offer a troubleshooting guide to help resolve basic problems that users may encounter while using Ubuntu. If you exhaust the troubleshooting advice below, there are plenty of other options for getting assistance and support. See Section 9.3: Getting More Help to learn about community support.

# **Troubleshooting Guide**

The key to effective troubleshooting is to work slowly and remain calm. Often, problems we encounter can be remedied rather easily, but becoming frustrated and dealing with the issue erratically can complicate the situation. Therefore, we advise that you work through your problem slowly and methodically, documenting the changes you make to your Ubuntu system. That way, you will always be able to roll back your work and also give fellow users information about your previous attempts, in the unlikely event that you should need to turn to the community for support.

## I installed Windows and can no longer start Ubuntu

When you first turn on your computer, Ubuntu or another operating system must also be started by the bootloader. When you installed Ubuntu, you installed an advanced bootloader called **GRUB** that allowed you to choose between the various operating systems on your computer, like Ubuntu, Windows and others. However, when you installed Windows, you removed GRUB, taking away the option of which operating system to start. You can easily restore GRUB and your bootloader choice by using the CD you used to install Ubuntu.

Insert your Ubuntu CD into your computer and restart, making sure to have your computer start the operating system that is on the CD itself (see Kapitel 1: Installation). Choose your language and select **Try Ubuntu**. Wait while the software loads, and then open a terminal. You will have to use some code to restore your bootloader. On the **Applications** menu, click **Accessories**, and then click the **Terminal** item. Enter the following:

```
$ fdisk -1 Disk /dev/hda: 120.0 GB, 120034123776 bytes 255
heads, 63 sectors/track, 14593 cylinders Units = cylinders of 16065 *
512 =
8225280 bytes
Device Boot Start End Blocks Id System /dev/sda1 1 1224 64228+ 83 Linux
```

**Definition:** A **bootloader** is initial software that loads the operating system when you turn on the computer.

```
/dev/sda2 * 1225 2440 9767520 a5 Windows /dev/sda3 2441 14593 97618972+
5
Extended /dev/sda4 14532 14593 498015 82 Linux swap
Partition table entries are not in disk order
```

This output means that your system (Linux) is installed on device /dev/sda1, but your computer is booting to /dev/sda2. First, you need to create a place to manipulate your Ubuntu installation.

### \$ sudo mkdir /media/root

Now, you need to link your Ubunut installation and this new folder.

```
$ sudo mount /dev/sda1 /media/root
```

If you've done this correctly, then

```
$ ls /media/root bin dev home lib mnt root srv usr boot
etc initrd lib64 opt sbin sys var cdrom initrd.img media proc selinux
tmp
vmlinuz
```

Now, you can reinstall GRUB.

```
$ sudo grub-install --root-directory=/media/root /dev/sda
Installation finished. No error reported. This is the contents of the
device map /boot/grub/device.map. Check if this is correct or not. If
any
of the lines is incorrect, fix it and re-run the script `grub-install'.
(hd0) /dev/sda
```

Now, reboot your Ubuntu Live CD, removing the disk from the tray and enjoy your Ubuntu system once again!

## My login screen no longer appears when I turn on my computer or

## The graphics on my screen appear corrupted

The simplest and easiest way to correct this issue is to order Ubuntu to reset the graphics configuration. Press and hold **Control. Alt** and **F1**. You should now see a black and white screen with a prompt for your username and password. Enter your username, press **Enter**, and then enter your password. Characters *will not* appear on the screen as you enter your password. Do not worry—this behavior is normal and was implemented for security purposes. Then, enter the following code and press enter.

#### \$ sudo dpkg-reconfigure -phigh xserver-xorg

Enter your password at the prompt, as above. Allow Ubuntu to process the command, then enter

\$ sudo reboot now

Ubuntu will reboot, and your login screen should be restored.

### I forgot my password

Well, it happens to the best of us. Luckily, resetting your password is trivial. As the computer boots up, press **Esc** when you see the white-on-black screen with a countdown (the GRUB prompt). Select the **Rescue mode** option, which should be the second item in the list. Wait while Ubuntu starts up. You *will not* see a normal login screen. Instead, you will be presented with a terminal prompt along the lines of

#### root@something#

To reset your password, enter

```
$ passwd username
```

Replace 'username' above with your username. Ubuntu will prompt you for a new password. Enter your desired password, press enter and then enter your password again, pressing enter after you are done. Ubuntu asks for your password twice to make sure you did not make a mistake while typing. Once you have restored your password, return to the normal system environment by entering

### \$ init 2

Login as usual and continue enjoying Ubuntu.

### Some text looks incorrect or corrupted

If you are seeing some text that looks odd or fails to display entirely, the designer probably intended it to be veiwed using Microsoft fonts. This can be fixed by installing the missing fonts, available in the Universe repository. See Kapitel 5: Software and Packaging (Configuring the Ubuntu Repositories) to enable this repository.

Open the **Synaptic Package Manager** by navigating to the **System** menu in the topleft corner of the screen. Synaptic is listed under the **Administration** submenu. Enter your password when prompted. In the search box in the top toolbar of the application, enter **mscorefonts**. Mark the package **ttf-mscorefonts-installer** for installation. Click **Apply** in the top toolbar, then wait while Ubuntu installs the fonts. Refreshing the troublesome page or reopening the offending document should fix the problem.

### Where are my deleted files?

You believe that you have hit the delete key and erased a file from your Ubuntu system! Do not worry. Just like other major operating systems, Ubuntu has a **Trash** folder where deleted files are stored. To access it, select the **Places** menu, click on **Computer** and then click **Trash** in the left-hand sidebar of the resulting window. To remove items from the trash, simply drag and drop them whereever you would like.

## I can't play certain audio or video files, or interact with some websites

Many of the formats used to deliver rich media content are **proprietary**, meaning they are not free to use, modiy and distribute, like Ubuntu is. Therefore, the default Ubuntu installation does not include the ability to use these formats. If you still find yourself in need of a closed format, you may install the necessary files with one command. Make sure you have your Universe and Restriced repositories enabled. See Kapitel 5: Software and Packaging (Configuring the Ubuntu Repositories) to enable this repository.

Open the **Synaptic Package Manager** by navigating to the **System** menu in the topleft corner of the screen. Synaptic is listed under the **Administration** submenu. Enter your password when prompted. In the search box in the top toolbar of the application, enter **ubuntu-restricted-extras**. Mark the package **ubuntu-restricted-extras** for installation. Click **Apply** in the top toolbar, then wait while Ubuntu installs the appropriate software.

Once this command has finished, your rich media content item should work properly.

## Everything on my monitor is too big or too small or

### How can I change my screen resolution?

The image on every monitor is made up of millions of little colored dots. Changing the number of dots displayed is called changing the resolution and is generally done through software. Increasing the resolution with make the displayed images sharper, but will also tend to make them smaller. The opposite is true when screen resolution is decreased.

The Ubuntu program **Display** allows users to change the resolution. Open it by navigating to the **System** menu in the top-left corner of the screen and then proceeding to the **Preferences** sub-menu, then selecting **Display**. The resolution can be changed using the drop-down menu within the program. Picking options higher up on the list, those with larger numbers, will increase the resolution.

Test out various resolutions by clicking **Apply** at the bottom of the window. Confirm or undo the change in settings in the resulting dialog window. When you have finished setting the screen resolution, click **Close**.

## I would like to free up some disk space

One easy way to clear some disk space is to remove the installation files of each package on your Ubuntu system. These files are known as the cache associated with each package. Removing these leftover files is easy and will not affect the normal operation of Ubuntu.

Open a **Terminal** by navigating to the **Accessories** sub-menu under the **Applications** menu in the top-left corner. Enter the following commands, entering your password when prompted.

\$ sudo aptitude clean ... \$ sudo
aptitude autoclean

# **Getting More Help**

This guide does not cover every possible workflow, task or issue in Ubuntu, nor was it ever meant to. If you require assistance beyond the information in the manual, there are a variety of support opportunties online. You can access extensive and free documentation, buy professional support services, query the community for free support or explore technical solutions. More information is available here: http://www.ubuntu.com/support

# 10 Learning more about Linux

# What else can I do with Linux?

By now, you'll be able to use your Ubuntu desktop to do all your normal day to day activities like browsing the web and editing documents. But you may be interested to find out what else you can do with a Linux-based computer. Linux computers are powerful tools that can be put to a wide range of uses, only a small subset of which you'll ever need.

### Free and Open Source software (FLOSS)

It's well worth knowing a little bit about the philosophy that gives Linux its power. When you hear the word "Free" used in the context of software, it's often referring to "free as in speech". However, the dual meaning of the word "free" led to some people suggesting the phrase "open source" to describe the methodology behind Linux. You may also encounter the abbreviation "FLOSS", which stands for "Free, Libre, and Open Source Software". These terms all mean the same thing: anyone who wants to can download the source code for a program. This may not seem like a big deal, but it allows computer programmers all over the world to contribute to Free software projects, often leading to a better program. All of the programs that come with Ubuntu by default are Free software.

### Other distributions

Ubuntu is only one version of Linux; there are lots more around. While they may look pretty different at first glance, they are all pretty similar under the covers.

There are two broad families: Debian based and Red Hat based. Ubuntu is based on Debian, as are Linux Mint, Xandros and Crunchbang Linux. Red Hat based distributions include Fedora, OpenSUSE, and Mandriva. The big difference between Debian-based and Red Hat-based distros is the package management system. Debian packages are .deb files, which Red Hat packages are .rpms.

There are also distros specialised for certain tasks. Examples of this include Mythbuntu, which is designed to be used on home media centres, and Ubuntu Studio, intended for multimedia production.

### Eine Version auswählen

Es gibt verschiedene Versionen, unter denen Sie wählen können. Welche davon für Sie am besten ist, können Sie entscheiden:

Ubuntu-Desktop

**Definition:** The **source code** of a program is the files that the have been written to make the program.

**Distribution:** A distribution, or **distro**, is a set of Linux programs bundled together to make it easier to install and use.

- Kubuntu
- Ubuntu Server-Edition
- Ubuntu Netbook Edition
- Kubuntu Netbook-Edition
- Xubuntu

Ubuntu uses the Gnome (GNU Object Model Environment) desktop environment, while Kubuntu uses KDE and Xubuntu uses XFCE respectively. Gnome is the most common, and easiest to use — KDE provides more features, customization and settings, while XFCE is a lightweight desktop environment designed to run on older computers. This manual will focus on Ubuntu and Gnome.

Die Server-Edition kommt ohne Desktop-Umgebung aus. Sie wird von der Befehlszeile aus bedient.

Die Netbook-Editionen sind für besonders kleine Bildschirme optimiert.

## 32 bit or 64 bit?

Ubuntu is available in two flavors: 32-bit and 64-bit. This difference refers to the way computers process information, with 64-bit processing using a little bit of additional memory while gaining a little bit of additional performance.

Why should you choose one versus another? With Ubuntu, you will not see much difference for most common uses. The few times when you may want to be aware of the flavor that you choose are:

- If your computer is fairly old (made before 2007), you may want to install the 32-bit flavor
- If your computer has more than 4GB of memory (RAM), you may want to install the 64-bit flavor

In general, we recommend that you install the 64-bit flavor of Ubuntu.

## Servers

Almost all of your day-to-day work can be carried out on a normal Linux distribution. However, there are some tasks which need something more specialised. These include running a website or a mail system. For these, you are much better off using a specialised server distro and hardware. These computers are on all the time and use quite a lot of power. It is possible to run these things on a normal desktop computer, but this is recommended only for testing things out.

This is not the best place to explain in detail about how to run a secure webserver; for that, you'd be best off using the Ubuntu Server guide, found at http://doc.ubuntu.com/ubuntu/serverguide/C/.

# Finding out more

This manual is not intended as a complete introduction to everything you could want to do with your Ubuntu computer. For that, you should try looking at the official Ubuntu documentation available either through the blue help and support icon, or on http://help.ubuntu.com.

# **Extra Applications**

Ubuntu bringt viele Programme von Haus aus mit, aber es gibt noch mehr tolle Anwendungen, die über das Software-Center verfügbar sind, die viele Aufgaben besser erledigen als die mitgelieferten. Hier folgt nun eine Liste mit nützlichen Anwendungen, die sie ausprobieren sollten.

## **Cheese Webcam**

If you've got a webcam on your laptop or attached to your computer, and you'd like to take cheesy photos of yourself and your friends, then Cheese is the application for you. It supports a lot of hardware and has features such as:

- Numerous effects
- Video recording
- Self timer
- Different resolutions
- Burst mode

You can find it in the Software Center by searching for "Cheese".

http://projects.gnome.org/cheese/

## **GIMP** Bildbearbeitung

The GIMP Image Editor is the premiere image manipulation and enhancement program for Ubuntu. Akin to Adobe Photoshop for Windows and Mac, the GIMP lets you do everything you've been able to do in Photoshop, on Ubuntu — without the hefty pricetag.

Features:

- Customizable interface allows you to set up the GIMP the way you want
- Powerful photo enhancement
- Digital retouching
- Excellent hardware support for things like drawing tablets

- Great file format support
- And it's available for Windows and Mac as well!

Grab it from the Software Center by searching for "GIMP".

http://www.gimp.org/

## **GNOME** Do

Gnome Do allows you to get things done. You can quickly search for many items present on your desktop or the web, and perform useful actions on those items.

Features:

- Awesome plugins let you send emails, play music, search the internet and much more
- Swift and sleek interface integrates perfectly with your new desktop
- Support for different themes to truly customize your experience
- Also includes an optional Dock

Once again, available in the Software Center under "Gnome Do". http://do.davebsd.com/

## **Google Chrome**

**Jokosher Audioeditor** 

**Pitivi Video Editor** 

### Sun VirtualBox

## **VLC** Mediaplayer

Der VLC Mediaplayer ist eine tolle Open-Source-Anwendung, die mit fast allem umgehen kann. Vielleicht kennen sie die Windows-Version von VLC, denn es wird nicht nur für Linux entwickelt. VLC kann fast jeden Video-Codec abspielen und unterstützt noch mehr Audio-Formate. Außerdem bietet er Unterstützung zum Abspielen von DVDs, Aufnahme von Inhalten und dem Musik-Streaming.

Install it from the Software Center by searching for "VLC".

http://www.videolan.org/

# Wine

Wine is an essential tool for Ubuntu users who wish to run Windows applications on their machines without the need of running a virtual machine such as VirtualBox. Although not every program will work under Wine, a lot of Windows software will work just as if they were running under an installation of Windows XP such as Microsoft Office, World of Warcraft and Counter Strike.

Install the version from the Software Center by searching for "Wine", or get the latest version from their website:

http://www.winehq.org/

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### 1. Definitions

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