MandrivaUser ★ International Community

Free like in freedom!

#2 - 2007i

MagDriva International

Hello World!

Mine ...

...is bigger than yours!

Oh, really? No, don't be afraid, this is no adolescent contest (or is it?) - but recently Desktop Linux published the results of their annual survey and we look at the charts with amazement.

Yes, with amazement. One of the most popular sites in the Linux universe has been telling us for weeks that Mandriva clone PCLinuxOS overran the holy cow Ubuntu, on the other hand this survey here shows that this is just not true, quite to the contrary.

And Mandriva? Well, Mandriva took first place! But only the first place in a small „group of smaller, independent distributions", all of them together making only 18% of the whole cake. Now this is not very astonishing: in this survey, as in the Distrowatch stats, the results are based on the quality of communication with the user community, on the overall visibility of the product and on the impression the distributor gives of himself. For this we may rather be astonished and happy that Mandriva is even mentioned in the list.

But honestly, who does really take such surveys seriously? Only those who always say that size matters! For me size only matters when I look at the steak on my plate!

Have fun wherever you are!

Editor MagDriva International

MandrivaUser.de is missing

Mark Vogt

known to our forum users as ‚marky'.

After a long and desperate fight Mark died of cancer 3 weeks ago. He is not dead for our community, he will live on in his postings and articles and in our memory.

Marky, may your soul rest in peace.

About ...
Some lines from the editor
by wobo, Germany

... this magazine

The previous issue of this international magazine was produced and released by the German community MandrivaUser.de, containing articles from this community only.

Due to a very hearty welcome and some feedback and following an idea of Olivier from the French community I decided to try and expand the project.

Starting with this issue the international magazine will feature articles from various Mandriva user community magazines, articles which have been published in their languages and now been translated into English.

Each community has its own way, related to their language, their country and their size. Some communities are very closely related to the distributor of Mandriva Linux, some others are completely independent and keep their distance from Mandriva.

Some communities have a large pool of contributors, others have to do with only a handful of active users.

But be there differences in language, attitude and ways to work – all are parts of the international community of users. And this magazine is for all of you.

If you are part of a Mandriva user community and your community wants to join, don't hesitate to contact me at wolfgang AT mandrivauser DOT de.

... this issue

In this issue you will read articles from Poland, France and Germany. Although I know that none of us is a perfect English author, I decided to do without a native English proofreader, to keep the authenticy of the various origins of the articles.

See the Imprint on page 16 for more information about the origin of the articles.

Letters to the editor

Our first international edition was answered by some feedback, some of it in the Mandriva club forum, some in the comments on Distrowatch and some in mails to my inbox. Here is a selection:

MS *(a former Mandriva website translator) wrote from Japan:*

I read MagDriva International version. It's useful for users, especially about DVD-RAM. After downloading the 2007 spring I tried to install it to Vmware, however I couldn't finished because of an error.

I introduced this to Mandriva community (though very small). I hope they will access and read MagDriva! For the desktop user, it is very important how we can use the softwares. Office is good, however I'm not satisfied about the painting and drawing soft, HTML editor, sound etc. What is good point and what is the problem. I really would like to see more program related articles on how to do things...

Paulina *from Poland talked about the fonts*:

While I was reading this issue (I very like it, articles are really interesting) I realized that you're using non-serif font which is a bit nerve-racking in long texts. Serif fonts are more comfortable to read. But it's just my opinion :)

Editor: Thank you for your hint. Starting with this issue we will use serif fonts for the text and non-serif for titles. Hopefully this will be an improvement.

Stephen (*aka germ in the Club forum) wrote:*

I really like the international Magdriva. Interesting and very well written. I hope it continues. Thank you and please pass my thanks along to the others involved.

John, *a Kiwi from New Zealand wrote*

I just finished reading MagDriva International #1. I must congratulate you on the quality of the entire magazine, it's tone is friendly, it's layout is clean and simple, and most important I think the content is what gets missed from many of the so-called „Professionally"-produced magazines I see from time to time.

Thanks to all of you for your feedback!

wobo

About The French

## *a brief introduction by Olivier, France*

In our last issue wobo introduced the German Mandriva user community. Now it is time for the French, here comes Olivier!

The French community
- getting organized ?

Mandriva is seen as a French distribution, even if since the fusion of Mandrake and Conectiva it is a distribution half French half Brazilian. But what about the French community of Mandriva users ?

During June 2007, various French users discussed on the forum about Mandriva, how to promote, how to help, how to get involved and one conclusion was the lack of a structured French community. We decided to created an unofficial community, unofficial since we did not create a "true and real" association according to the French law. We called this community Magnum. It stands for what you want ;) it could be *Mandriva A Gagné de Nouveaux Utilisateurs grâce à Magnum* (Mandriva has won new users with Magnum). Whatever it is we had several projects:
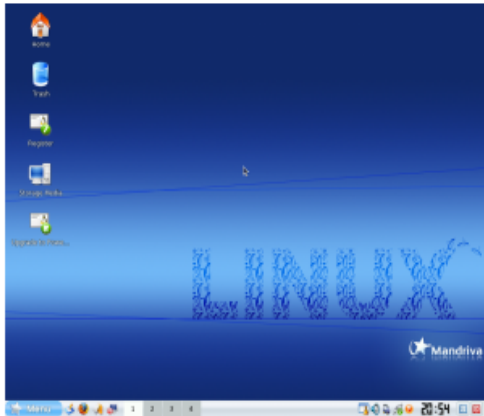
It is a very strange thing to point out that for a long time there was no official nor non-official French community. The German community has it own site : mandrivauser.de, the Spanish one has blogdrake.net, the Brasilian community can be reach at mandrivabrasil.org/site, if you speak Italian you have to go to www.mandrakeitalia.org and users from Nederlands gather at http://mandrivaclub.nl/site/index.php. If you are trying to find where French Mandriva users are, well, you'll not anything.

It is difficult to explain why there was no French community. I have several explanations, i don't know how much there are true. First of all the fact that Mandriva and formely Mandrake is French leads to make the creation of a French community useless. Secondly i guess French like doing their own thing rather than cooperate. The reasons why are finally not that much important. What matters is that several French users share the same wishes.

Magazine

One project was a community magazine : Mag'-num. 3 issues had been publised and I am in charge of the project. The magazine is for all and everybody can publish its own article.

The speech is free, criticisms are welcomed, software tests, summary of the forum, summary of cooker mailing list, ... You can download the issues : http://olivier.mejean.free.fr/MAGNUM/magazine/

Website

What would be a community without a site ? The question about the site was very open. What should be put in the site was the main point. Clearly the site is for the moment a failure. Maybe the CMS chosen is not the right one, there is no leader to make it alive so the site is in standby, but i guess there will be soon changes.

Book

The idea of a community book around Mandriva has risen. Surely it is a good idea : a book from users to users. The realisation is quite difficult : writing and publishing. For publishing there are some structures we can use : Framabook http://www.framabook.org/ and In libro Veritas http://www.inlibroveritas.net/ have shown that it was possible to publish a free book. Just like the site this project is not very active.

Wiki

From the very start of our discussions about the site we agreed that for the documentation of Mandriva you should use the official wiki. I was one that asked to use mediawiki instead of xwiki. Once the new wiki available, some French Users decided to use this tool for documentation. It is not a simple translation of the English Mandriva wiki, the goal is really to give documentations to users from the version of Mandriva to use to the use of softwares even simple softwares should have their own pages.

More and more users participate to the wiki by writing articles, correcting them, translating. We can be proud of the work done. The wiki still need more and more articles, it also need some extensions (to include video for example).

Supporting projects

Magnum could also help some personal projects. Two French users are conducting great projects.

Mantools : Manslide, ManDVD, Manencode

These three tools are at the top of kde-apps.org and we should be proud of the author of these three greats softwares. He has a good vision of what could be the future of these tools but he also need help.

Since he is not interested in doing a website, we, French users, have to help him to create a website that fits the quality the Mantools, we have to help him in creating documentation, in translating it into English and spread the words around the site, in doing rpm for Mandriva. This project must overtake the French community to become a leading project in the open-source world.

MCCLive

MCCLive is a live CD based on Mandriva for old computer. He could run it on a pentium 266 MHz with 48 Mo de Ram by creating a swap on the hard drive. You can download the iso there : http://download.tuxfamily.org/mcc/mcclive/

You can test it and write a comment of the Mandriva forum : http://forum.mandriva.com/viewtopic.php?t=61926 (French but i guess an English answer will be accepted)
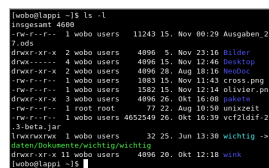
The future is ours!

Trying to federate the French community is a great challenge, and it will take time. We have lots of projects, some are very active other much less active. But more than projects, we have users motivated, very active of the Mandriva forum and wanting to get involved and this is the good point, and surely this why we have everything to succeed!

Olivier aka goom

Screen - almost like windows

written by Maciej Malinowski, Polland

Screen – only for admins?

Screen is a tool that is often associated more with system administration and utilizing remote shell accounts than anything else. In reality however, this program can easily find a use among everyday Linux users. It is a piece of software that was created in order to launch multiple shell instances inside a single terminal window. With the traditional approach, if the user opens his favourite shell, like bash, in a text based terminal window, he's actually limited into typing subsequently one command at a time. Of course, there is the '&' operator that will force a process to start in the background, releasing control of the terminal session immediately.

But if we want to launch two processes that are interactive, such as an ftp session together with mc, we have a problem. We could simply use two terminals for this, log into both, and switch between them using the alt + F<number> combination. This can easily be done on the localhost, but if we want to perform this trick on a remote machine accessed via ssh, we are forced to open a second secure connection which can be somewhat troublesome. Such a situation calls for the above mentioned software – Screen.

Use it!

After we get the hang of it, using screen is pretty straightforward. After launching it, we basically don't see any difference between it working and not, we even get the same command prompt we had without screen. But we now have access to many useful commands. Every Screen command starts with the *Ctrl+a* combination, after which comes the command itself, represented by a single character. The number of commands is quite large and there's no way to present them all in such a brief article. They are all however described in the manual, so type *man screen* to find out.

To display a list of all open windows in the program, you need to press the *ctrl+a w* combination. After that in the bottom left corner of the window "0*$bash" should appear, which means that we only have one open window, enumerated 0, and that bash is currently operating in it. An asterisk marks the currently used window.

"Ctrl+a c" creates a new window and switches the user into it. So first of all I'd recommend to launch something in the first window, such as for example mc. After that you can create a new window, and the mc window should disappear, leaving the newly created shell. Mc is of course still operating.

We can go back to the first window by pressing the *ctrl+a* combination twice, and continue to switch until we reach the desired screen. We can obtain the same effect by pressing *ctrl+a n*. It is however much quicker and easier to simply pick the number of our desired window. All you need to do is press *ctrl+a <window number>*, in our case it would be *ctrl+a 1*. To close a given screen, you can simply type *exit* in the command prompt. Locking a terminal is also possible by simply pressing *ctrl+a x*. This is especially useful when we want to leave the keyboard for a while and don't want anyone to tamper with our shell.

Another interesting feature is a possibility to take text-based screenshots of currently viewed windows by hitting the *ctrl+a h* combination. The screenshot is saved in the working directory as a hardcopy.{number} file. A similarly called command is *ctrl+a H*, which toggles logging what you see into the screenlog.{number} file stored in the current directory. By doing so, we can easily save our session history for later usage in an article, tutorial or simply to review information returned by the system.

What's really interesting in Screen is that we can detach the program from the actual terminal, hence making it into a daemon program. We can even log out of our system, and the screen session together with all launched programs will still be active. To do this, press *ctrl+a d*. And to reconnect to a given Screen session, one should type

screen -r.

This has many advantages when we work on remote machines. Let's say we want to download a huge file on the remote host and not leave an open terminal session to it. We can log in using ssh onto the other computer, launch a Screen session, type (for example):

wget a/very/huge.file

And then leave the running Screen session by pressing *ctrl+a d*. We can now log out of the remote computer, wget will keep working and downloading the file without issues. When we're done, we can log back into the machine, type *screen -r* and simply switch to the window where we left wget. Many programs benefit from such features, such as the ekg instant messenger. We can leave it running on a given host and receive messages, even though we're not logged into the computer itself!

Screen is by default installed in most, if not all, Linux distributions.

From DVD to AVI

## *written by Łukasz Ciesielski, Poland*

The Task

Probably everyone has managed to gather a collection of favourite films. Some have just a few, while others lots. But DVDs do have a price tag, sometimes an impressive one, too. So what to do in order to make sure our discs won't become damaged over the years? It would be best not to use them at all and keep safe in the case, but luckily there are other solutions. We can simply make a backup copy of our valuable collector's items and enjoy them without fear of scratches or dust. But how does it look in practice? Basically we need to perform a conversion of the material in question, to make video and the sound tracks more compressed.

When people buy DVDs, they don't usually care much about its actual capacity, which can become a problem when one decides to make a copy of the newly acquired disc. This is because films are usually recorded onto a dual layer disc, which is able to house about 9 GB of data. We can of course pick up a proper disc at the local computer store, but that will cost us, as they are much more expensive than ordinary DVD discs. So to keep things economically friendly and simple, we can just as well get ordinary 4.7GB discs. But in order to fit the original material onto a smaller capacity medium, we'll need to compress it. Quality will be somewhat sacrificed in the process, but not enough to defeat the purpose of backing up our valuable item.

Below I will present how to copy a film from both dual layer and single layer mediums onto the hard disk, and after that onto a cheap 4.7 GB DVD disc.
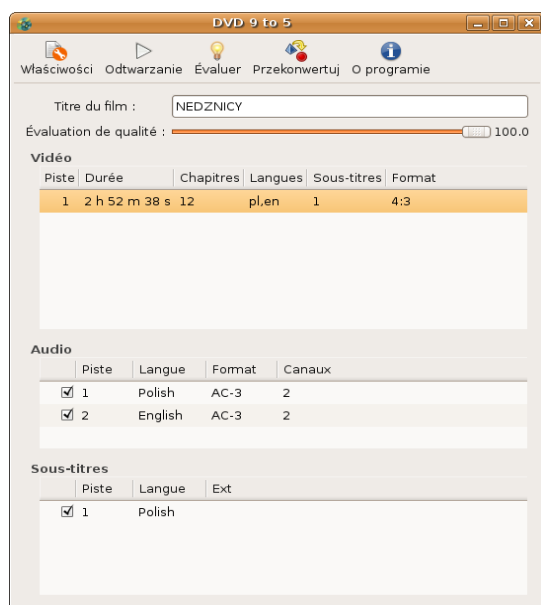
Dvd95

Behold our first examined piece of software – Dvd95 (short for DVD 9 to 5 converter).

Using the software is very simple and is basically limited to supplying a DVD disc with the film and clicking on the 'Convert' button. But these are not the only possibilities that the application provides. We can also choose the audio track and subtitle language. We do so by toggling a check box in the Audio section, and the sous-titres (subtitles) option. One of the worst problems with Dvd95 is its incomplete translation. Some of the interface is in French, but it doesn't limit us much because we can peek at the fairly descriptive icons associated with individual options.

Personally, I'd recommend selecting just one audio track and one subtitles version. This will help save some disc space, which can be important when dealing with dual layer mediums. In dual layer DVDs, the video data is compressed so that it won't take up more space than 4.7 GB together with the audio tracks and subtitles. The more space the program 'saves', the lesser the compression of our resulting material, which equals a better quality of the film. I think it's worth examining the properties menu (Proprietes), because that's the least translated one, with all of the options described in French, while most users are English speaking.

As for the System menu, the matter is quite simple. In the Périphérique field we specify our DVD drive. Usually it's automatically detected though. Below in the Espace temporaire field we choose the temporary directory, for storing data. The Espace des Iso is to select the target directory for the conversion result – a raw image of the converted disc, ready for recording. The final option we need to set is the multimedia program in Lecteur multimédia and that's it. Another location where problems can be encountered is Paramétras de création.

Luckily most options have sensible defaults so we won't have to think too much, but it's worth mentioning that Garder les menus means save the original menu, Créer uno image ISO is to create a disc image, and Graveur le DVD roughly translates to save the resulting disc image onto an empty DVD medium.

The application also allows the user to choose the resulting ISO image's size. Now all we have to do is click 'Convert' and wait for a few minutes, depending on the equipment we're working with. Dvd95 has been written for the GNOME graphical environment.

An alternative and possibly a more developed application is k9copy, created for the KDE environment. I won't however go into details of working with this software, because it's pretty straightforward and very similar to working with Dvd95.

Converting

Another method that will help us save time and money is converting the film into AVI, MPEG or OGG. I should probably note that none of the above are actually video codecs! They are really just containers. The libraries that perform actual encoding and decoding are – for example – DivX, Xvid, x264 and so on. There are many pieces of software for Linux that make it possible to convert DVD material into a more compressed format, with some of them being really decent at this task. The quality of resulting copies is also satisfactory. AcidRip and dvd::rip are a few that I chose to describe, considering their usability.

AcidRip

AcidRip is a much easier to use application of the two. It is based on the Mencoder application; actually it is a graphical interface for the said software. Mencoder itself is part of the Mplayer package. AcidRip has been written in Perl, using the perl::gtk library and can be downloaded from http://acidrip.sf.net. However, it is much simpler to install it from a repository our distribution uses, with debian-based distros it would be something like *apt-get install acidrip*. I say simpler, because the program might need some other libraries to work properly, so it's best to leave dependency handling to our distro.

Before we start compressing films, let's take a look at the general settings provided by developers. The good news is that they need to be usually set just once, after that AcidRip will work just fine without additional configuration. So let's go to the Settings tab for starters. Let the provided screenshot be a guide to filling out the proper settings.

We can already see that AcidRip will surely require MEncoder, Mplayer and lsdvd to be already installed. Again we can download it from our distribution's repository, as they are popular packages.

Now for a brief explanation of the options:

Cache DVD – before compression begins, the application should first save the original material onto our hard drive;

Overwrite files – does just that (pretty useful when the conversion stops unexpectedly and we are not sure that the result is free from any errors);

Compact box – after clicking Start, progress of the compression process will be presented on screen (see screenshot at the end of this article);

Delete cache – purge the temporary files cache;

Eject DVD – eject the medium after data is ripped.

At this point I assume that you already have the application and all necessary codecs (xvid, lame) installed. Below is a screenshot of what you should see after launching the application:
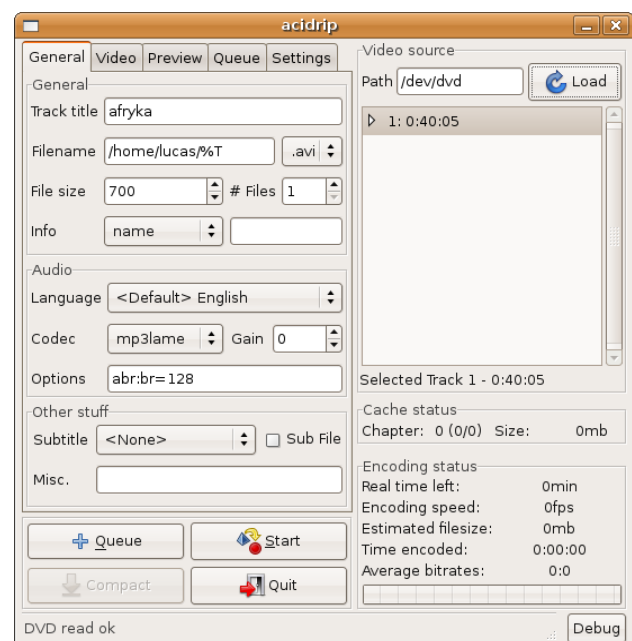
Step 1

Put the DVD into the recorder. Then click Load. You should see some data about the source medium that you want to convert into AVI.

Step 2

This is where the actual process begins. First take a look at the General tab. Next to the Filename field there should be an option to select file type, which can be either avi or mpg. Personally I choose the first one. Below you should specify the target file's size and number of files, for example two. This means that after the process is done, our result will be split into chunks.

WARNING!

This is a very important choice to make, because it will ultimately influence the quality of our resulting DVD rip. If the movie is longer than 120 minutes, I recommend splitting it into two 700 MB files. Why exactly this much? Because that's the capacity of an ordinary CD-R medium, onto which we can save the backup.

Now go to the Audio section. In the language field, choose the desired voice over. I choose Polish. Below in the Codec option select "mp3lame" (if we want compressed audio) or "copy" (to keep the original sound, usually AC-3). The options field should by default have the value "abr:br=128" (of course this can be altered to say 192, but 128 should be sufficient to enjoy a fairly decent sound quality).

Step 3

Video tab. First, we need to choose a video codec which will be used to compress our movie. I can choose between: copy, raw, nuv, lavc (it's a part of Mplayer package so it doesn't require separate installation), vfw, qtvideo, libdv, xvid, x264. I choose xvid. Why? Because it's free and most of standalone DVD players are familiar with it. I have to be fair and admit that lavc is faster and compatible with DivX 4/5, but unfortunately only some of popular DVD players can handle it.

No go to *Passes filed*. Generally, there are 3 options: 1 pass, 2 pass and 3 pass. If you choose 1 pass, video and audio will be compressed in the same moment (fast compression, low quality). When you choose 2 passes, audio will be compressed first, and video after (it will give you really good quality). 3 pass compression gives the best quality, but it takes much more time. First audio is compressed, and then – twice – video. I choose Passes: 2.

WARNING!

If Bitrate is more than 1000-1100, you can safely use 2 pass, but if it's less that 1000, you should choose 3 pass.

Select Crop, Scale and Lock aspect (standard options). Click on Detect. Program should detect the size of your movie (width and height). It's a nice option, because it allows to change those variables. Go to Width (next to Scale). Change its value to 640 (picture will be bigger, but less stretched when watching on full screen). Now we set a few filters. Write "pp=de" in Pre filters field (will remove square fields from the picture), and "hqdn3d =2:1:2" into Post filters filed (will reduce buzz). And that's all. Now just click on Queue and Start.

dvd:rip

Next valuable application is dvd::rip. Some says that it's the best. After installing you should make some changes in its preferences. Go to menu Edit, then Preferences.

To start using the program you need to create its folders. Do it, clicking on + buttons. After that, to check what is missing, click on Check all settings. If everything is installed, it will be shown in green. If something is missing, it will be marked red.

Now, let's start. Put your DVD into your drive and click on menu file – New project. Write your movie's name and click on Create project. Below, choose a source of the movie (DVD drive or iso image). Dvd::rip gives us two options: encoding DVD "on the fly" (not recommended, requires more power and destroys DVD drive) or copying data into the hard drive before encoding. I choose the second one.

Now go to RIP Title tab. Click on Read DVD table of contents. On the right side, choose audio language (Select audio track option). Now click RIP selected title/chapter button below. Next, go to Clip&Zoom tab. Without going into details, we have two options: slow or fast compression. Fast compression, gives, of course, worse quality. Choose: Autoadjust, Meduim frame size, HQ Resize, and click Apply.

After that, go to Transcode tab. Choose Container – it's something, like a box, where video and audio will be put. Select the video codec – I choose XviD. Below change 2-pass encoding option into yes. Change Deinterlace mode to Smart deinterlacing. You can also set some filters, but it's not required. Personally, I select only two of them: denoise3D and pp. The last thing, is a size of the file, we want to get. You can set a size and number of CDs or just a full size of your file. I needed only 1CD x 700MB.

In Audio options section we can choose a codec of audio: if you select AC3, the movie will get an orginal audio track. Good choice, is also MP3, 128kbit/s. One of important things in the program is calculator, located in the bottom part of the window. After setting everything up, click on Transcode. Now you just have to wait for your movie!
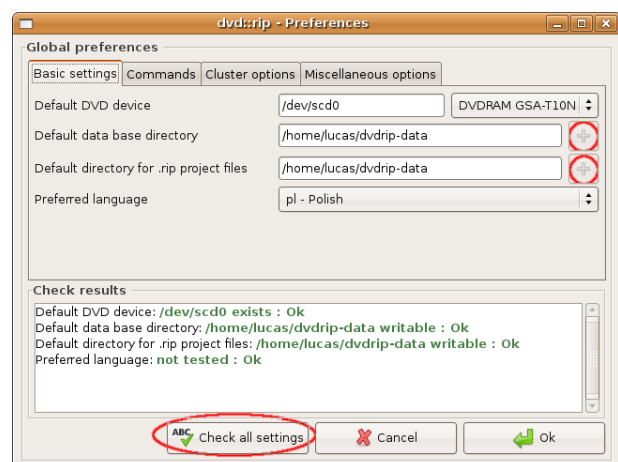
LinuxMint Celena
– simplicity and elegance
written by Łukasz Ciesielski, Poland

Our previous issue featured an article about the installation of Mandriva Linux, quite natural, this being a magazine for users of Mandriva Linux. But as all Linux users we are always curious about what is happening in our neighbor's backyard.

Łukasz peeked over the fence for us.

A bit of history

The first official edition of the "minty" Linux saw daylight on the 27th of August 2006. Since that not quite distant moment a lot of things changed, and those changes were mostly significant improvements. On the 30th of May 2007 the distribution's creator – Linux Mint Contributors – presented a new version of their system – called LinuxMint Cassandra 3.0.

Developers left potential users with a choice of their graphical environment, which can be either GNOME, KDE or XFCE. CD images can be downloaded from the project's website: http://www.linuxmint.com/download.html.

The most up to date version of the distribution is called LinuxMint Celena 3.1, and already another version, dubbed LinuxMint Romeo is being prepared behind the scenes.

Even at first glance, a person who uses Ubuntu will notice that LinuxMint seems to have a lot in common with that popular distribution. And that would surely be a correct assumption, as the 'minty' Linux is heavily derived from the Feisty Fawn release of Ubuntu and also from Debian. And although Celena has its own graphical theme, the Human motive known from Ubuntu is also installed and can be switched on. Furthermore, most of the configuration tools that Mint users are left with are the same tools that one can find in a Ubuntu installation.

Why the fork?

So why exactly developers decided to change the name and release the distribution as a separate operating system? Well, there's a simple and justifying answer to this: the idea behind Ubuntu was to encourage only free software. And that can create some problems. As a long time Ubuntu user I know how much time it sometimes takes to configure the default installation and tweak it to fit my needs.

With LinuxMint this issue is somewhat more optimistic looking. We don't have to install additional codecs and software that is non-free, because it is actually already present right after installation. This is a nice surprise.

In what areas can LinuxMint save your time?

It seems that it can do so in most if not all areas of typical system usage. Many people know that besides updating, much time must be sacrificed to get codecs and additional software up and running. With Celena, this is now a non-issue. Most typically used software is already there when we fire up the system for the first time.

This includes multimedia codecs such as DivX, Xvid, RealPlayer, Macromedia Flash and some other formats popular in Windows. Moreover, we can listen to mp3 or ogg music right out of the box. Watching DVDs is also instantly possible, which will surely make film fans pleased. The developers also didn't forget about Java, and provided their distro with the latest version of it - number 6. So it seems clear that this Linux is being prepared with heavy focus on the potential user, that needs to do his work and enjoy his time with the computer instead of spending many hours on tedious configuration procedures.

Something for the more advanced user

To update the system and install additional software, the fast and effective APT-GET is used. This tool is certainly nothing new to Debian, Ubuntu or Knoppix users, but many probably are asking themselves a very particular question: what about software repositories?

Does LinuxMint, as a Ubuntu-derived distro, uses Ubuntu packages, or maybe it also has its own software? Well, both assumptions would be correct, as just a quick look at the */etc/apt/sources.list* file reveals Canonical's repositories, which are meant for Ubuntu users, medibuntu and linuxmint storages. The latter are however in minority and the system seems to rely heavily on its parent.

For the curious...

The following repositories can be also found in Ubuntu Feisty Fawn 7.04:

deb http://archive.ubuntu.com/ubuntu feisty main restricted universe multiverse

deb http://archive.ubuntu.com/ubuntu feisty-updates main restricted universe multiverse

deb http://security.ubuntu.com/ubuntu feisty-security main restricted universe multiverse

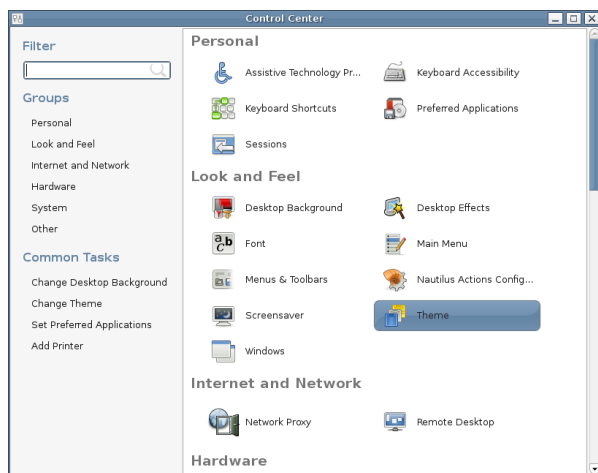## The others are:

deb http://www.linuxmint.com/repository celena/

deb http://archive.canonical.com/ubuntu feisty-commercial main

*deb http://packages.medibuntu.org/ feisty free non-free*

All of these entries come from the default *sources.list* file that comes with LinuxMint Celena 3.1.

"Minty" applications

The new system has also managed to acquire a few new utilities, that significantly simplify many configuration tasks. One of them is Xserver-Xorg, an almost miraculous tool for applying screen and graphics configuration parameters.

The traditional method, which is to manually edit the *xorg.conf* file is neither comfortable nor always effective. Celena, on the other hand, managed to configure itself properly for my systems with Intel graphics chipsets, SiS and VIA. All worked flawlessly.
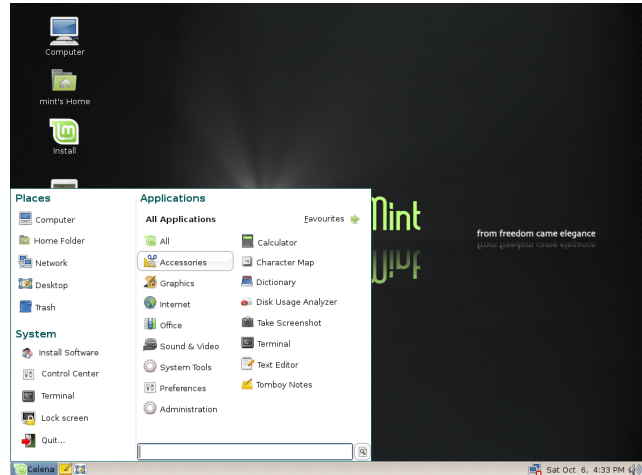
Another application that deserves attention is Windows Wireless Drivers. It is where we set profiles for Internet settings. Installation is analogous to the one Ubuntu users are familiar with. We can choose from either Auto or Manual mode (the latter allows to set – say – a static IP address). We can launch the program from the menu or the Control Centre.

Just after a few mouse clicks, one can easily notice the unique menu that Celena developers created obviously inspired by the SUSE menu.

Basically, it wouldn't be an exaggeration to say that this system allows users to set every relevant option through the mintConfig menu. Everything is integrated into it, like graphics settings, sound, window settings or the system theme. The control centre seems to be based on the SUSE configuration panel.

LinuxMint can mount filesystems such as FAT32 or NTFS without problems, using the mintDisk application. We can not only read the said partitions, but also write onto them. Shortcuts to newly mounted filesystems are created automatically on the desktop.
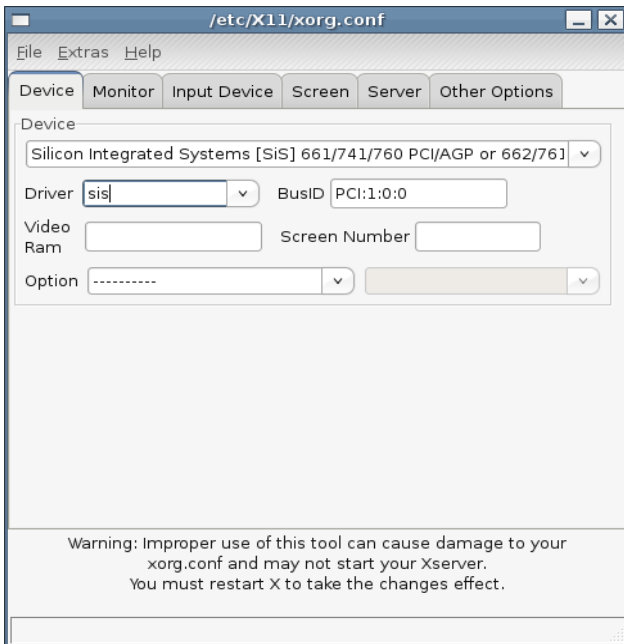
If you ever had problems with getting a WiFi card to work properly under Linux, then the good news is LinuxMint can solve them with the unique mint-Wifi application, that contains a set of drivers for many devices, a diagnostics tool and a handbook. WiFi installation and configuration is really simple under Mint, almost pleasant, considering what some users have to go through before getting troublesome cards to work.

What's in standard?

Basically, everything is in standard. It seems to be a distribution that is tailored particularly well for both beginners that are using Linux for the first time, and also for advanced users, who simply had enough of wasting time with common, repeating tasks like software installation. The default set of software that is provided is just enough for most people. There's even the OpenOffice suite.

Multimedia applications are also installed and all set to go, like Totem and Amarok. SoundJuicer is provided as a mean to rip CD tracks onto the computer, and it does a good job while being easy to use. Some popular and good programs are missing though, probably because of space issues – it is a LiveCD after all. This can be however resolver by typing into the console:

apt-get install vlc mms dvd95 scribus gnomecommander gdesklets xine amule (plus other applications that you want). Maybe this isn't the perfect way for a first time user, but still fairly easy nevertheless.
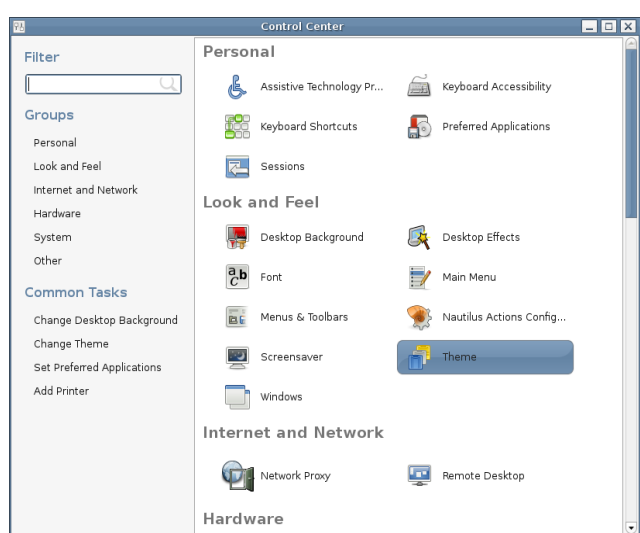
Summary

System requirements can be considered a downside of this distribution. Of course, for the typical desktop that nowadays boasts a 2 GHz or more CPU and a lot of RAM this shouldn't be a problem, but using anything below 256 MB RAM and a 600 MHz processor is not recommended with LinuxMint. These are actually the only drawbacks I've found that can be annoying in this distro. The vast possibilities that the system offers thanks to its good choice of programs and ease of use typical for Ubuntu Feisty Fawn seem to be a perfect combination and a remedy for many common problems people have with Linux.

A few years ago the perspective of Linux replacing Windows seemed very distant, almost unreal. But nowadays, when we see systems such as LinuxMint or Ubuntu emerging, we can say this is not as impossible anymore. The opportunities provided by these new free systems are comparable with those present in the commercial Windows world.

Fatal Error: kernel-header not found

written by Manfred, Germany

The main issue when installing VirtualBox

First of all let me tell you that I am not a kernel expert. This article rather talks about my experiences, the problems and solutions around the kernle headers and sources while trying to install VirtualBox in my Linux system.

In the previous magazine I wrote about virtualization and introduced some tools and applications, VirtualBox and VMware-player, to name the most popular. During installation and configuration of these apps we need some additional packages which are seldomly installed by default, e.g. the kernel-sources. Here we have the two expressions which are the subject of this article: **the kernel and the kernel-sources.**

What is the Kernel?

According to http://en.wikipedia.org/wiki/Kernel_%28computer_science%29 Wikipedia, the kernel is *the central component of most computer operating systems (OS). Its responsibilities include managing the system's resources (the communication between hardware and software components).*

In short: no kernel, no system. But now we come to the more complex part: today there are many different versions of the kernel, which is important to know. Not every kernel is working on every computer. In recent Mandriva this question was easy to answer: kernel-2.6.17-13mdv has been around for a while and serves to every need.

There are some newer kernels available in the '/contrib' media, meant for testing. They are called kernel-linus to show that these kernels are very close to the original kernel, distributed by Linus Torvalds and the Linux Kernel Team. Since Mandriva Linux 2007.1 kernel-2.6.17-14mdv is the officially installed kernel, not a big jump ahead, some other distributions already use Version 2.6.23.

Next: Kernel-Sources

As the name implies, this is the package with the source files of the kernel, needed to compile a new kernel. *Don't run away, I won't go into that!* But those kernel sources are also needed to install VirtualBox and Vmware-player. Why is that?

Looking into the install.log of VirtualBox you may see that there is a compiler process running in the background, building modules for your currently installed kernel. This is the point where most problems arise and most mistakes are made. That's the main cause of this article.

Now let's get to work!

If VirtualBox can not successfully finish this compilation you will see an error message with some information about the cause of the error:

• `no kernel-headers found`

(or something similar). For the unexperienced Linux novice this often means the end of the adventure. Because although the error message impies a missing of the kernel headers he cannot install these kernel-headers - they are already installed. What the error message really means is the missing kernel-sources package, namely the sources matching exactly the installed kernel (check this with ,uname -r').

There are several kernel-sources packages matching your kernel. There is the complete and not so small package and there's the so called ,stripped' version which is all you need to compile modules such as the one we have at hand. Provided you have set up urpmi with the official media (/main, /contrib) the complete string to install the needed kernel-sources package reads:

`urpmi kernel-source-stripped-latest`

Now you get a list of available packages. You MUST select the package which exactly matches your installed kernel. This is the main mistake many users make and therefore this point cannot be stressed enough: the sources must match the kernel! Installing the kernel-source-stripped-latest takes care of all dependencies which may be missing, e.g. make or gcc. After this you can re-boot and during the boot sequence the VirtualBox module will be built correctly.

A glimpse over the fence

For a curious guy like me it was easy to notice that different distributions take different approaches to solve this problem. Mandriva is an RPM based distribution, so are Fedora and openSUSE and many more. Let's see how Fedora goes about this kernel-sources thing. It's quite easy:

`yum install kernel-headers kernel-devel`

yum takes the running kernel as reference and installs all the dependencies. A little bit more convenient, as the most challenging task for a newbie (the selection of the correct sources package) is done automatiacally by yum.

It's a totally different story with deb-based distributions like Debian or Ubuntu. You will get an error message if you want to install a package ‚kernel-source'. With Debian you only install the kernel-headers with

```
apt-get install linux-headers
```

You have to give the correct version, as with urpmi in Mandriva apt shows the various options you can choose.

The exact match of headers and sources with the installed kernel is essential for the compilation of the module. If these do not match the compilation will fail, actually it will not even start.

Conclusion

Hopefully I have shown that you need to be careful and prepared if you want to meddle with kernel affairs. Do yourself a favour: if you don't know exactly what you are doing, ask in the mailing lists and web forums. I have seen that many users have problems installing VirtualBox or VMware-player only because of this kernel-header issue.

Table of the different solutions in the most popular distributions :

Mandriva:	kernel kernel-source-stripped-latest
	urpmi
Fedora:	kernel-headers kernel-devel
	yum install
Debian and deb-based:	linux-headers
	apt-get install
ArchLinux	kernel-headers
	pacman -S
Slackware	kernel-source
	slackpkg –install slapt-get –install

Tipps & Tricks

gathered by the German community

Check ISO Images without md5sum
(translated by wobo)

Prerequisites

1. Linux system installed
2. mkcd installed (in Mandriva with 'urpmi mkcd')

Task

Checking a downloaded ISO file is a MUST before you even think of burning it to a CD. But sometimes it jsut happens that you cannot find any checksum for reference. What if?

Mandriva (and other distributors as well) write a previously generated checksum into the header of an ISO while this ISO is generated. This checksum can be read by mkcd and checked against a new checksum which is also generated by mkcd.

But beware! The checksum in the header only refers to the pure data in the ISO, it does not include the header (remember: it was generated before the ISO was built!). The script I introduce to you also generates a checksum without the header. This means that this checksum can not match a local made md5sum because md5sum includes the header (like the checksum k3b generates before burning)! (thx to Usul for this remark)

Action!

```
$ cd /Downloads  # here's my iso file
$ mkcd -k openSUSE-10.2-GM-DVD-
i386.iso
mkcd version 4.2.6
mkcd:
mkcd: Checking md5 of ISO header
include_md5:
System:          LINUX
Volume:          SU1020.001
Publisher:       Novell, Inc.
Application:     openSUSE-10.2-dvd5-
download-10.2#0
ISO size:        3881041920
Reading: 100 %
include_md5: previous data
md5sum=2331560c350437fd745627a97961ec6
c
include_md5: computed md5
7a8092d9c0e1fa5599096f4ea8fa318c
$
```

mkcd reads the md5 from the header („previous data") and generates a new one („computed md5"), these two must match.

Changing existing package source entries from synthesis to hdlist
(translated by wobo)

During or after isntallation you normally configure the sources where you get your packages from. Most users do this in the GUI, using the start menue or the MCC.

If so, you get a file named **synthesis.hdlist.cz**. You can search this file for package names either with urpmi or in MCC's rpmdrake, but you never see the complete description about installed files or the changelog of a certain.

The CLI fans can use 'urpmq filename' but not 'urpmf filename' – to make this clearer.

To get the full description you have to change to the so-called '**hdlist.cz**'. To do this you open the module in rpmdrake where you configure the media. Open each entry with 'Edit' and remove the string 'synthesis.' from each entry – and don't forget the dot at the end!

After a click on 'OK' the hdlist.cz will automagically downloaded and you are a happy camper with all package descriptions.

Skype unter Mandriva 2008 x86_64
(translated by wobo)

When starting Skype on my „Mandriva 2008 Powerpack x86_64" I got the following error message:

```
skype: error while loading shared
libraries: libQtDBus.so.4: cannot open
shared object file: No such file or
directory
```

I could resolve this error by adding the following lines to my "/etc/ld.so.conf" (as root):

```
/usr/lib/qt4/lib
/usr/lib/qt4/lib64
```

I saved the file and did a „ldconfig" (again as root) and everything was fine.

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