

Make your own Ubuntu Back up LiveCD

Table of Contents

Why have a back up?.....	1	Issues.....	4
Why use Remastersys?.....	1	Removing kernels.....	4
Screen shots.....	2	How I use remastersys.....	5
Install Remastersys.....	2	Annex.....	6
Add to software sources.....	2	Localisations detected by BleachBit.....	6
Add using Synaptic.....	2	Remove packages.....	7
Make a back up.....	2	Games.....	7
Boot from CD.....	3	Fonts.....	7
Install from CD.....	3	Tomboy f-spot and mono.....	7
Constraints.....	3	Evolution and filters.....	7
localepurge.....	3	Pidgin bluetooth compiz.....	7
BleachBit.....	3	Miscellaneous.....	7
Remove packages.....	4	Setting up the orphan filter.....	7
Orphans.....	4	Auto-detect a printer.....	7
Size of the iso.....	4		

Why have a back up?

I expect to make mistakes as I experiment with Ubuntu, and have. A backup has my personal version of Jaunty. It has

- my Firefox extensions
- my personalisation of Ubuntu
- the installation of the debian version of OpenOffice
- my customisation of OpenOffice eg current spelling list, macros, etc
- the removal of packages that are of no interest, etc.

It also means I do not have to repeat the massive updates – one recent one was 162 packages at 110.8MB with a kernel update – about 30 minutes for the update and five more minutes to remove the unneeded kernel.

A backup gives me options. I trialled VirtualBox but got an error “there was an error starting the gnome settings daemon etc”. I abandoned that. My choice was to un-install all of VirtualBox and related packages or re-install from a backup LiveCD which I knew was about 23/25 minutes. I re-installed.

Why use Remastersys?

I looked at a variety of options

- SystemRescueCd at http://www.sysresccd.org/Main_Page I was put off by the need to work at the command level - see quick start guide on the url.
- How to Customize the Ubuntu Desktop CD at <https://help.ubuntu.com/community/LiveCDCustomization> Again I was put off by the command line requirement.
- Remastersys is completely GUI-driven with no need to use the Command line but see below for resolving a problem with auto-detecting the printer.
- Clonezilla at <http://clonezilla.org/> I discovered it about the same time as

Remastersys. The simplicity of the later quickly made clonezilla not an option.

This <http://klikit.pbworks.com/Remastersys+tutorial+by+dedoimedo> (*) got me started with Remastersys and it was the simplicity that was attractive. It is as simple as that url demonstrates.

Screen shots

Linked to this presentation is a set of screen shots. In the following paragraphs I refer to the screen shot by its number in this way – [screen shot 01](#)

NB. There are breaks in the number sequence.

Install Remastersys

Add to software sources

Click System then Administration then Software sources ([screen shot 01](#)) and enter your password. In the Software sources window click Third Party Software ([screen shot 02](#)) then Add ([screen shot 03](#)). In the next window add to the APT line `deb http://www.remastersys.klikit-linux.com/repository remastersys/` Click Add source ([screen shot 04](#)). The next window shows the line just added ([screen shot 05](#)). Click Close and there is a prompt to reload as the software information is out-of-date ([screen shot 06](#) and [07](#)).

Add using Synaptic

Open Synaptic. In the Search box type remastersys and click Search ([screen shot 08](#)). There is just one entry. Click it and select Mark for installation ([screen shot 09](#)).

You are then prompted to mark other packages, in my case 24 in total. Click Apply, the Apply again and wait for the install to complete.

In System then Administration there is a new entry Remastersys backup.

Make a back up

At this point I will make a backup and ignore a number of issues that need to be thought about for future backups.

There are several options for the backup. See the url marked * above. I have only used Backup as that meets my requirements.

Click System then Administration then Remastersys backup ([screen shot 10](#)) and enter your password if prompted. There is a window advising closing all applications and network shares ([screen shot 11](#)).

In the next window select Clean ([screen shot 12](#)), not really necessary for the first run, but a good habit to get into, then ok.

The next window states that the temporary directory will be cleared, click ok ([screen shot 13](#)).

A small window appears during the clear process ([screen shot 14](#)).

The next window asks you to select an option. Select backup and click ok ([screen shot 15](#)). You are then told you have selected backup and warned not to interrupt the process. Click ok ([screen shot 16](#)).

The next window shows the progress of the process ([screen shots 17, 18, 19](#) and [20](#)). In the first run it removes two packages – popularity-contest and ubuntu-standard – I

have seen no explanation why.

NB. One of them is present in the Synaptic's Not installed (residual configuration). Remove it at your leisure.

The backup, on my machine, takes about 36 minutes, see the times on the screen shots.

The almost penultimate window ([screen shot 21](#)) states the iso etc has been created and is located in /home/remastersys/remastersys. It advises testing it either in a virtual machine or on a CD/DVD. Click ok then ok to finish Remastersys.

Browse to /home/remastersys/remastersys and you will see the iso ([screen shots 22](#) and [23](#)). A single click on the iso shows its size ([screen shot 24](#)).

I write the iso to a CD taking about 20 minutes. I generate the md5sum for the burned CD and to compare it with the remastersys version ([screen shots 27](#) and [28](#)). So far I have never had a CD fail so maybe checking the md5sum is overkill. If it did I still have the iso and can re-burn.

My initial LiveCD was 762MB. That is Jaunty LiveCD with addition of remastersys, no other additions and/or deletions.

Boot from CD

To test the CD leave it in the tray/drive and Restart.

An options menu appear ([screen shot 30](#)) , identical options to the official LiveCd, but not as well presented. Press Enter or type live and the install starts. At the bottom of the screen there are lines about loading casper, etc ([screen shot 31](#)). After that point it is identical to installing the LiveCD ([screen shot 32](#)).

When it completes the desktop is identical to what you are used with the addition of an icon titled ubiquity-gtkui.desktop, not particularly meaningful, but clicking that icon initiates a full install ([screen shot 33](#)).

Do some testing, eg internet access, word-processing, etc.

Install from CD

To install from your own LiveCD you can either click the new icon, or at the boot screen type install, or in System then Preferences click Install.

A re-install takes about 23/25 minutes.

Constraints

I can only boot from a CD as I have no capability to boot from a usb or DVD so I need the iso to be 700MB or lower. So I need to remove packages. This section describes my actions to get an iso of an acceptable size.

localepurge

I installed localepurge using Synaptic. The description is "This is just a simple script to recover disk space wasted for unneeded locale files and localized man pages. It will automagically be invoked upon completion of any apt installation run."

It removed 19.26MB.

BleachBit

I discovered BleachBit, at <http://bleachbit.sourceforge.net/download/linux> The

description

“BleachBit deletes unnecessary files to free valuable disk space and maintain privacy. Rid your system of old junk including broken menu entries, cache, cookies, localizations, and temporary files. Designed for Linux systems, it wipes clean Bash, Beagle, Epiphany, Firefox, Flash, GNOME, Java, KDE, OpenOffice.org, Opera, RealPlayer, VIM, XChat, and more.”

One of the features of BleachBit is the removing of localisations, similar to localepurge, but much more effective. In one trial install of Jaunty BleachBit identified and removed 4301 entries totalling 156.3MB of localisations. In the annex, Localisation detected by BleachBit, are some examples. Compare with the 19.26Mb removed by localepurge.

BleachBit is available from the Jaunty repository but is way behind the current version. If you decide to install BleachBit from the url above you will be notified that there is a version in the repository.

Remove packages

I found this <http://ubuntuforums.org/showthread.php?t=820804> which proved very useful as a starter. Not all suggestions are applicable to Jaunty as some packages delivered with Hardy were removed in Jaunty (eg diveintopython and wvdial). So be careful if you follow the guidance in that url.

Jaunty, as installed, has a number of packages I do not want eg tomboy, f-spot, bit torrent, unusual fonts (eg ttf-thai-tlwg “provide the basic font set for Thai free desktops”), being able to access a Windows PC, etc.

In the annex, Remove packages, I give the command lines to remove a large number of the packages.

Orphans

The final addition is deborphan whose description is “deborphan finds 'orphaned' packages on your system. It determines which packages have no other packages depending on their installation and shows you a list of these packages. It is most useful when finding libraries, but it can be used on packages in all sections.”

The annex describes setting up the filter.

Size of the iso

After all the above manipulation I ran remastersys and produced an iso of 635.5MB, well within my target of 700MB.

I burned that to CD, booted from the CD and tested. All was ok. I subsequently had to install completely from that CD and again all was ok apart from Jaunty failing to auto-detect the printer. See the annex, Auto-detect a printer, for the solution.

Issues

On one occasion I spotted a problem when I ran Remastersys and was not on-line. The message was that metacity, one of the packages used in Remastersys, was not up-to-date ([screen 40](#) and [41](#)). I killed Remastersys, went on-line, restarted Remastersys and the warning did not reappear. Remastersys completed successfully. I always now run when on-line.

On another occasion I spotted a warning with rsync, I did not note the message, but it

was about some files having vanished. That was a surprise as I stop all other processes before starting. Before that particular run I had removed a large number of files, see the BleachBit entry above. I guess, but I am not convinced, that possibly not all those files have been completely removed before Remastersys started up.

On a re-install Jaunty fails to auto-detect the printer. See the annex, Auto-detect a printer, for the solution.

Removing kernels

After one update the kernel changed from 2.6.28-11 to 2.6.28-15. I found when I looked in Synaptic's Installed (Auto removable) two of the 2.6.28-11 packages – linux-headers-2.6.28-11 and linux-headers-2.6.28-11-generic ([screen shots 50](#) and [51](#)). So I removed them with Synaptic.

Using Synaptic I then searched using 2.6.28-1 and got a short list ([screen shots 52](#)). I marked linux-image-2.6.28-11-generic and was prompted to mark linux-restricted-modules-2.6.28-11-generic ([screen shots 53](#) and [54](#)). I did so and removed both with Synaptic. That removed all of the 2.6.28-11 packages. Top right of screen shot 54 shows a terminal session with the current kernel version – that is the one that must not be removed. NB. In Synaptic the Not installed (residual configuration) still has linux-restricted-modules-2.6.28-11-generic ([screen shot 57](#)). I removed it with Synaptic.

Synaptic (or is it apt-get) attempted to remove a directory twice ([screen shot 55](#)). Each time it failed as the directory was not empty. As Synaptic was prepared to remove them I did. The solution is similar to that for auto-detecting the printer. Browse to the folder and remove it.

How I use remastersys

My process is

1. Backup Firefox bookmarks to Documents.
2. Copy Documents and Pictures to a usb and selectively read some files.
3. Delete Documents and Pictures from the hard drive.
4. Empty the Waste basket.
5. Open BleachBit and remove all of Firefox options (except Cookies, Places and Passwords), all of the OpenOffice options, all System options (except Free disk space and Localisations(need to be administrator for that)) and all Thumbnails.
6. Open BleachBit as Administrator and select all of the APT options and all System options except Free disk space.
7. Now run Remastersys. Go and do something else for about 32/5 minutes.
8. I burn the iso to CD, test the md5sum, reboot and test using internet, Writer, Base, etc.

Annex

Localisations detected by BleachBit

This is an extract of localisations found by BleachBit.

I saved the whole localisation contents into a file, there are 4301 entries. NB. These were not detected by laocalepurge. These are extracts from that file. Here are Spanish, Swedish, Italian and French versions of the same file and there were many more.

128.0KB /usr/share/gnome/help/serverguide/es/network-auth.xml

60.0KB /usr/share/gnome/help/serverguide/es/vcs.xml

80.0KB /usr/share/gnome/help/serverguide/es/installation.xml

96.0KB /usr/share/gnome/help/serverguide/es/virtualization.xml

96.0KB /usr/share/gnome/help/serverguide/es/mail.xml

124.0KB /usr/share/gnome/help/serverguide/sv/network-auth.xml

60.0KB /usr/share/gnome/help/serverguide/sv/vcs.xml

80.0KB /usr/share/gnome/help/serverguide/sv/installation.xml

96.0KB /usr/share/gnome/help/serverguide/sv/virtualization.xml

92.0KB /usr/share/gnome/help/serverguide/sv/mail.xml

124.0KB /usr/share/gnome/help/serverguide/it/network-auth.xml

60.0KB /usr/share/gnome/help/serverguide/it/vcs.xml

80.0KB /usr/share/gnome/help/serverguide/it/installation.xml

96.0KB /usr/share/gnome/help/serverguide/it/virtualization.xml

92.0KB /usr/share/gnome/help/serverguide/it/mail.xml

128.0KB /usr/share/gnome/help/serverguide/fr/network-auth.xml

64.0KB /usr/share/gnome/help/serverguide/fr/vcs.xml

84.0KB /usr/share/gnome/help/serverguide/fr/installation.xml

100.0KB /usr/share/gnome/help/serverguide/fr/virtualization.xml

96.0KB /usr/share/gnome/help/serverguide/fr/mail.xml

I then copied the file into Calc and split it by / then sorted by the last two fields. Here are examples from that sorted file. Language is penultimate column in the first extract and third last in the second extract.

usr	share	gnome	help	ekiga	sv	ekiga.xml
usr	share	gnome	help	ekiga	bg	ekiga.xml
usr	share	gnome	help	ekiga	fr	ekiga.xml
usr	share	gnome	help	ekiga	el	ekiga.xml
usr	share	gnome	help	ekiga	uk	ekiga.xml
usr	share	gnome	help	ekiga	pt_BR	ekiga.xml
usr	share	gnome	help	ekiga	fi	ekiga.xml
usr	share	gnome	help	ekiga	ru	ekiga.xml

usr	share	gnome	help	ekiga	sv	figures	accounts_d1.png
usr	share	gnome	help	ekiga	bg	figures	accounts_d1.png
usr	share	gnome	help	ekiga	fr	figures	accounts_d1.png
usr	share	gnome	help	ekiga	el	figures	accounts_d1.png
usr	share	gnome	help	ekiga	uk	figures	accounts_d1.png
usr	share	gnome	help	ekiga	pt_BR	figures	accounts_d1.png
usr	share	gnome	help	ekiga	fi	figures	accounts_d1.png
usr	share	gnome	help	ekiga	ru	figures	accounts_d1.png

Remove packages

I would normally advocate using Synaptic to make the removals but having done it that way several times I tried the command line with no problem.

Games

```
sudo apt-get -q -y purge gnome-games gnome-games-data gnome-cards-data
```

Fonts

```
sudo apt-get -q -y purge ttf-arabeyes ttf-arphic-uming ttf-lao ttf-opensymbol ttf-sazanami-gothic ttf-sazanami-mincho ttf-thai-tlwg ttf-unfonts-core ttf-indic-fonts-core
```

Tomboy f-spot and mono

```
sudo apt-get -q -y purge mono-common f-spot mono-2.0-gac mono-2.0-runtime mono-gac mono-jit mono-runtime tomboy
```

Evolution and filters

```
sudo apt-get -q -y purge bogofilter bogofilter-bdb bogofilter-common evolution evolution-common evolution-data-server evolution-documentation-en evolution-webcal ekiga evolution-exchange evolution-indicator evolution-plugins
```

Pidgin bluetooth compiz

```
sudo apt-get -q -y purge pidgin pidgin-data pidgin-otr bluetooth bluez bluez-alsa bluez-cups bluez-gnome bluez-gstreamer bluez-utils compiz compiz-core compiz-wrapper compizconfig-backend-gconf compiz-fusion-plugins-extra compiz-fusion-plugins-main compiz-gnome compiz-plugins
```

Miscellaneous

```
sudo apt-get -q -y purge aspell hunspell-en-us myspell-en-au myspell-en-gb myspell-en-za wamerican wbritish aspell-en vinagre transmission-gtk tsclient brltty brltty-x11 at-spi gnome-orca python-pyatspi espeak espeak-data mousetweaks gnome-mag gnome-accessibility-themes scim scim-bridge-agent scim-bridge-client-gtk scim-gtk2-immodule scim-modules-socket vino example-content mtools vim vim-common ddraw splix gnome-pilot nano ed usb-creator vim-tiny computer-janitor computer-janitor-gtk
```

Setting up the orphan filter

Set up a filter by opening Synaptic, click the Settings button, followed by the Filters button. In the Filters window, on the bottom left hand corner, push the New button and type Orphaned as the new Filter name. With your new Filter selected, in the "Status" tab on the right, click the Deselect All button. Next, check the "Orphaned" option under the "Other" category. Then click the OK button.

Auto-detect a printer

Open a terminal session and type `gksu nautilus` This opens nautilus, the file browser. In the nautilus window select File system , then etc, then cups then double click `ssl` ([screen shot 60](#)). Delete the two entries ([screen shots 61](#) and [62](#)) then go back to `ssl` and delete it ([screen shots 63](#) and [64](#)). Close nautilus.

Then type `sudo /etc/init.d/cups restart` There will be a message “Restarting Common Unix Printing System: cupsd” ([screen shot 65](#)). Exit terminal. Connect the printer and it will be auto-detected. Use System then Administration the Printing. A window titled “printer configuration – local host” will open showing your printer ([screen shot 66](#)).