

Install Gentoo using Knoppix

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To be an independent distribution, Gentoo has to provide its own liveCD's to install Gentoo. However I recommend to use an other easier and more user friendly way by using a Knoppix CD.

When Knoppix starts, it detects your computers hardware and comes alive with the KDE desktop and many other applications. Within KDE you can do the installation, that is easier and more user friendly than working on one single text based screen. You can even play games while your computer downloads or compiles.

The following steps were necessary in addition to the Gentoo installation handbook to do a successful 2.6 kernel installation using Knoppix (Version 5.x):

1. Download and burn yourself a new Knoppix CD (www.knoppix.org).
2. Tell your PC's Bios to boot from the CD
3. Start it with the Knoppix CD inside. During the boot of Knoppix parameter can be entered F2 and F3 give help. In case of problems type in **expert** or **failsafe**. On certain parameters the word Knoppix has to be put in front: **knoppix lang=sg**
4. Set the keyboard to your country layout (flag icon lower right corner)
5. You want to write to the hard disk. This is not the default condition of Knoppix, so before mount them go to the desktop device file and unckeck the read only box.
6. Open terminal (Konsole)
7. Type in **su** to go to the root (no password is required within the terminal)
8. Open file manager in system=> More applications => File Manager -Super User Mode. Now you have to type in your root password.
9. As written in the Gentoo handbook, create the hard disk partitions. As a rule of thumb the swap partition should be 2 times the RAM size.
10. Create Mounting point **/mnt/gentoo**
11. Before you start with the installation checkout http://gentoo-wiki.com/Safe_Cflags and decide on the the gcc settings! The root of many big problems comes from there, Cflags are confusing so take the time to set them once the way you want, and don't touch them afterwards.
12. Open konqueror and go to www.gentoo.org and open the installation manual. Copy and paste the command right out of the Gentoo installation handbook into the root terminal.
13. Instead of using the text based Internet browser **links2** and learn how to operate it (key strokes), use an other super user mode file manager window. Type in www.gentoo.org/main/en/mirrors.xml and

- download the file to `/mnt/gentoo`.
14. Mirrorselect does not exist in Knoppix so add manually a line like this `GENTOO_MIRRORS="ftp://mirror.switch.ch/mirror/gentoo/ ftp://ftp.uni-erlangen.de/pub/mirrors/gentoo"` as last line of the `/mnt/gentoo/etc/make.conf` file. As you can guess, it should point to some mirrors near of you, to have good download performance.
 15. Knoppix detects your hardware, so just spy what it has detected to use that in your installation. E.g. type in `lspci` to see for what pci cards you have to configure your kernel, `lsmod` to see the modules loaded, `glxinfo` or `glxgears` to test direct rendering, `alsaconf` to test your sound card, `lsusb` or `usbview` for USB, `ifconfig` for your Ethernet connection Remember that most of those commands work just when you type them as root.
 16. I installed a text based Gentoo using Knoppix. However I did not try installing `Xorg` and `KDE` within Knoppix. Just a few commands are involved to install Xorg and KDE, so I did this from my text based Gentoo installation. Basically, I just used Knoppix instead of the Gentoo liveCD.

Having a text based Gentoo installation, you want probably to continue towards KDE. In your Gentoo text based installation, login as `root` and type:

```
emerge xorg-x11
```

```
env-update
```

```
source /etc/profile
```

```
xorgconfig
```

for the 2.6 kernel type `/dev/input/mice` for your mouse check for graphic card and monitor resolution.

```
startx
```

to test the X-server (ctrl alt backspace to quit).

Before installing KDE it is wise to check your USE flags. `emerge ufed` the use flag editor that comes with a nice short description about the use flags. Check what you want in the future and save it.

Then for KDE3.4

```
emerge kde-meta
```

to make that kde starts automatically:

```
echo "exec startkde" > ~/.xinitrc
```

In `rc.conf` add line `DISPLAYMANAGER = "kdm"`

```
rc-update add xdm default
```