

Movix from HDD for Linux Newbies and Windows users

This home-made HOWTO works correctly with my configuration, but you will perhaps have to modify some parameters for it to work on your config if you don't exactly proceed as I did.

As an info, my aim was to make a real standalone player, so my HDD is an old little HDD of 170Mo, and is connected on the first IDE port as a Master (that's important for the drive description in the files we will create/modify). This HDD will just have a primary partition, and will only be used for this purpose.

I tested this installation process on another HDD too, that had a mandrake linux distro installed, and a free first partition on it.

The place of the CDROM drive doesn't matter (it can be the slave on IDE1 or Master or Slave on the IDE2).

The best way to install Movix on your HDD is to connect (just for the installation) 2 CDROM drives (one containing Knoppix, the other one containing the Movix CD).

If you have a linux distro yet installed on the HDD, you just need ONE CDROM drive.

Basically, what we are going to do is mount the HDD where we copied the Movix CD instead of the the CDROM drive, and boot from it as if it were the CDROM drive.

Notes for really newbies (as I am ;) in linux):

in the following lines, all the characters set after a # are comments, so you don't have to type them, it's only supplementary help! Just type what's in **blue characters**!

If you can't access a directory, or can't save a file: it's a rights problem, so, just chmod it.

The way to do so is:

- for a file: go in the directory the file is in with the root-shell, and type: **chmod 777 myfile.itsextension** (chmod will make the file readable, writable and executable for all.)
- for a directory, in the root-shell, you just have to go up of one directory by typing "**cd ..**", and then type "**chmod 777 mydirectory**"

So, we can begin, step by step. That's the way I proceeded, and it worked fine. (I hope it will be OK for you).

In this HOWTO, I'll explain how to deal with Knoppix, if you use your linux distro nstead, it shouldn't be hard for you to adapt... ☺

What you need

- 1) A Knoppix linux distro (<http://www.knoppix.com>) (or a linux distro yet installed on the HDD)
- 2) A Movix CD burnt from the downloaded image (<http://prdownloads.sourceforge.net/movix/movix-0.8.0pre6-iso.zip?download>)
- 3) A HDD of more than 100Mo (;)... should'nt be hard to find ☺

Let's begin : preparing the HDD

- 1) Boot the Knoppix CD (or your linux distro)
- 2) Get a root Shell (K Menu => Knoppix => RootShell)
- 3) Type "**cfdisk**" (without "")
- 4) In cfdisk, create a new partition. Partition type has to be 83! (by default cfdisk proposes 82). You can add the "Boot" flag for the disc, but it is not necessary because we will use a boot-manager. Once done, write the partition table. If the drive is on IDE1 as a master, the name of the partition should be "hda1". Else, remember

the name of this partition !!! You can now exit cfdisk

- 5) In the RootShell, type “`mke2fs /dev/hda1`” (hda1 or whatever your partition is called) to create an empty linux partition.

Installing boot manager (GRUB) and copying the files

- 1) Firstable, we're going to mount the HDD device, to be able to work on it:

In the Root-shell type:

```
mkdir /mnt/movix
```

```
mount /dev/hda1 /mnt/movix # hda1 is the partition name we created, so if it's another name, change it. Now your HDD is known as to be /mnt/grub-boot.
```

- 2) Now, we will copy the Movix CD files to the HDD. The easiest way to do so is to proceed as described if you are linux newbie:

Click the icon that represents your HDD on the desktop (for me it's hda1). This will open a new “explorer” window (its name is Konqueror). In the menu, click “View”=>“Show hidden files”

Proceed the same with the CROM drive icon that contains your Movix CD Rom.

Now, just select all directories in the Movix CD, and drag and drop them into the HDD window. Select “copy to”.

Move `initrd.gz` (from `/mnt/movix/isolinux/kernel`) to the root of your HDD partition.

Now, select all the files and directories on the HDD, and right click=>properties=>permissions=>then check all the checkboxes to make all r-w-x, select “apply to all subdirectories”, and apply.

When done, we'll install GRUB, the boot-manager.

- 3) Installing GRUB

In the Root-Shell, type:

```
Grub-install --root-directory=/mnt/grub-boot /dev/hda # hda or whatever your partition is called, without the number! (for example hdb, hdc, hdd).
```

Grub will ask you to wait while checking all drives, and ask you if the found drives are OK. You should see 2 lines: one for the Floppy (if you have one), the other one for the HDD.

- 4) Now we'll modify the Movix file to make it bootable from the HDD if no Movix CD is present:

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- a) Preparing the `initrd` to be able to edit it:

- Decompress the `initrd.gz`:

In the root-shell type:

```
cd /
```

```
cd /mnt/movix
```

```
gunzip initrd.gz
```

Don't close your root-shell.

You now have a file named `initrd` instead of `initrd.gz` in the "kernel" directory.

Now, mount the `initrd` file to be able to edit it:

`mkdir mountdir` # creates a directory named "mountdir"

`mount -o loop initrd mountdir` # mounts `initrd` to be able to edit it

With the "explorer", select the files located in the "mountdir" directory, and make them readable, writable, and executable, and so on for the subdirectories (as seen below).

b) Let's apply the patch to be able to boot from HDD .

While you are in this directory ("mountdir"), find the file placed in `/etc/rc.d` and named "rc.S".

Right click on it, and select "open with=>Kate".

Kate is a text-editor that will allow us to modify the file `rc.S`

In Kate, find the section that begins as :

```
#####
## Mounting Movix CD....
#####"
```

We will replace this whole section by another one:

The aim is to mount the HDD partition instead of the CDRom drive!

So, you can delete all the lines between

```
#####
## Mounting Movix CD....
#####"
```

and the next section (the next commands block that begins by "#####").

- Instead of " Mounting Movix CD" you can write anything you want, it's just for you to locate the section if you have to re-work on it. (I put " Mounting Movix HDD).

- Now, instead of what you deleted, type thos commands:

```
mount /dev/ide/host0/bus0/target0/lun0/part1 /cdrom
```

#This is the long path to your HDD partition. Part1 is the 1st partition of the HDD placed on the 1st IDE bus. So, if the partition you selected is another one, change `part1` to the partition number on your system.

```
cp /cdrom/movix/rc.movix /etc/rc.d
```

```
chmod a+z /etc/rc.d/rc.movix
```

Save the file and leave the editor.

We can unmount the `mountdir` directory:

In the root-shell type:

```
umount mountdir/
```

c) Configuring the boot-manager:

From the Knoppix K-menu:

K=>editors=>Kate

Type the following lines in the empty new-file:

Add a Movix section:

```
title Movix from hd # or whatever you want after "title"
```

```
# Change to the hd where initrd and vmlinuz are
root (hd0,0)
# Kernel: you can/should edit the LABEL, video, vga, MOVIX_HD, MOVIX_HD_TYPE
parameters (caution: it is ONE line !!!)
kernel /isolinux/kernel/vmlinuz root=/dev/ram0 load_ramdisk=1 prompt_ramdisk=0
ramdisk_size=50000 rw LABEL=MoviX KB=fr ACCEL=no
# ramdisk_size=50000 is the ram allocation to load the files. The files need 26000 to be
loaded correctly, so with 50000 we're OK. Else, you should have the message "Kernel
Panic : VFS : unable to mount root fs on 01:00" when booting from HDD.
# LABEL=MoviX is the default label of Movix, and the following parameters are mine (for
my old graphic card that doesn't support acceleration, and my FRENCH keyboard).
# and now the initramdisk
initrd /initrd
```

Save this newly created file as "menu.lst" in the following directory:
/mnt/grub-boot/boot/grub/
Be sure this new file is r-w-x

WELL, WE'RE DONE!

All you need now is to exit Knoppix.

When you'll reboot, if there is no boot CD in the CDROM drive (like a movix CD by example), you'll boot from the HDD and launch Movix from HDD!

Just BOOT AND ENJOY!!!

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TIP:

In the case your system doesn't boot, because the files we created and modify contain errors (type mistake for example), you can reboot the Knoppix CDROM to make the modifications. But be careful: When you boot knoppix, if you go and click the HDD icon, you will NOT have the right write permission on the files, even if you are the one that created them!!!

To avoid this, when booting from Knoppix CD, don't click the HDD icon before doing this operations:

Open a root-shell
In the Root-shell type:

```
mkdir /mnt/movix
mount /dev/hda1 /mnt/movix # hda1 is the partition name we created, so if it's another
name, change it.
```

Then, you can access your HDD by clicking the HDD icon on the desktop, and have the rights to modify the files.

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