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## Catux-USB: a new type of distribution (bootable from USB) (13650 lectures)
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Creado el 23/07/2004 16:06 modificado el 23/07/2004 16:06

*Catux-USB is a distribution created by Catux[(1)], an association of GNU/Linux's users from the central area of Catalonia.*

This distribution is not just one more, but it has a distinguishing feature: it can be executed from any Pendrive (or any USB storage device, even the low capac ity ones.

Once it has been executed and the hardware detected, you will have a totally nor mal distribution, based on Debian through Knoppix and ready to do all the apt-ge t you want.

Here there are some instructions over how to download it and store it into a Pen drive.

Versión en castellano disponible aquí[(2)] (Bulma[(3)])

Versió en català disponible aquí[(4)] (Catux[(1)])

# Main Features

Let's take a look of some the Catux-USB features:

- Catux-USB uses the Knoppix hardware detection, this way you will not have an y problems with sound cards, net cards, video cards, etc.
- It is used from a Pendrive: you can easily use it in any computer.
- The basics have been installed (X-Window, mail client, Web, FTP) and we have also added (or substractect) other packages, as in a normal Debian.
- Multilanguage support: Catalan, Spanish, English (in programs, in locales, o r in configuration scripts)
- With all this, you can easily create a distribution for specific uses. (as s ecurity, maths, etc.)
- It carries the patch e2compr[(5)] fo r file system compression to greater capacity.
- There are two versions (only changing the size, for more comfortable install ation): for 128MB & 256MB Pendrives. Anyway you can always change the size to be st addapt it to your needs.

The main idea of this distribution is that you have it in your Pendrive, with th e packages that you desire and with your own configuration, since it is like a t otally functional distribution (we can write on it normally).

# Installation

First of all you can download it from:

- ftp://ftp.salleurl.edu/pub/Linux/Distributions/Catux-USB[(6)] or from:
- ftp://ftp.caliu.info/pub/distribucions/catux/[(7)]

Then you can uncompress and unpackage it:

```
gunzip catux-usb_0.1-256.tar.gz
tar -xvf catux-usb_0.1-256.tar
```

And copy the contents of the directory `catux-usb_0.1` into the Pendr ive, for example:

```
cp -r catux-usb_0.1/* /mnt/pendrive
```

Where `/mnt/pendrive` is the first partition of the device on FAT for mat (for example, indentifier in the partition table `e`, "System" W95 FAT16 (LBA). The distribution is not executed on FAT, but on a ex t2 file which is on a FAT partition.

We can modify the size of the system using a script (read the first question of the FAQ.)

# Boot

Once this is completed you will do `syslinux /dev/sda1` and then rese t the machine with your Pendrive still in the USB port. If your BIOS has support for USB devices booting, and it is configured to do so, you will be booting fro m the Catux-USB. It is possible that your BIOS has this support but it is not co rrectly configured (we will have to enter the BIOS and configure it in the boot options).
Eventhough there are not many BIOS that can boot from USB devices, the new ones that come out will surely have this option.

In the case that the mother board has no support to boot from USB devices, you c an solve this little problem burning a CD with the ISO image that you can find i n `catux-usb_0.1/imatge.iso`. For example you can do it this way:

```
cdrecord -v speed=10 dev=0,3,0 -eject -data imatge.iso
```

And now you only need to plug the Pendrive in and boot using the CD-ROM. The CD is only for booting, then it all works from the Pendrive, leaving the CD free.

The first time you boot the system, it will ask you in which language you want t he interface (Catalan, Spanish or English), and the size of the file that it wil l use as the HOME of your user.

# Access to files...

The whole system is in the file `knoppix/knoppix`, but it is compress ed using the patch [e2compr](5) so if yo u want to mount this file from your distribution, you will need to patch your ke rnel.

The user's HOME file, called `catux-usb.ext2` is a ext2 type normal f ile, so from any distribution you can do:

```
mount -t ext2 -o loop /mnt/pendrive/catux-usb.ext2 /mnt/home_catux
```

And access the files that the user has saved in his/her HOME.

# FAQ

- **P:** I want to change the size of the system (this is, the file `k noppix/knoppix`) How can I do it?
- **R:** First of all you have to mount the Pendrive from your system doing :

  ```
  mount -t vfat -o exec /dev/sda1 /mnt/pendrive
  ```

  (You want to execute the files from the Pendrive and many times the FAT partitio ns will be mounted with the files without the exec flag) Then you will do:

  ```
  cd /mnt/pendrive
  utils/modify_size.sh
  ```

  And follow the instructions.

  Remember that if you have data in the file `knoppix/knoppix` best if you make a backup. The user's

HOME will not be modified with this operation.
- **P:** Sometimes I see weird messages that begin with `compress:....`
- **R:** These messages are kernel patch `e2compr`,these will be removed in the next version of e2compr. Is not a problem if you don't use quota s in the compress system (in Catux-USB this is not a problem)

You can find more information or help [here](8)

**Lista de enlaces de este artículo:**

1. http://www.catux.org
2. http://bulma.net/body.phtml?nIdNoticia=2058
3. http://www.bulma.net
4. http://catux.org/index.php?contingut=articles&menu=6&num=39
5. http://e2compr.sourceforge.net
6. ftp://ftp.salleurl.edu/pub/Linux/Distributions/Catux-USB
7. ftp://ftp.caliu.info/pub/distribucions/catux/
8. http://catux.org/catux-usb/index.php?idioma=en

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