Installation from LIVE medium

The Official Documentation for Mageia

This manual was produced with the help of the Calenco CMS [http://www.calenco.com] developed by NeoDoc [http://www.neodoc.biz].

It was written by volunteers in their free time. Please contact Documentation Team [https://wiki.mageia.org/en/Documentation_team], if you would like to help improve this manual.

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No one will see all the installer screens that you see in this manual. Which screens you will see, depends on your hardware and the choices you make while installing.

1. Select and use ISOs

1.1. Introduction

Mageia is distributed via ISO images. This page will help you to choose which image match your needs.

There is two families of media:

• Classical installer: After booting the media, it will follow a process allowing to choose what to install and how to configure your target system. This give you the maximal flexibility for a customized installation, in particular to choose which Desktop Environment you will install.

• LIVE media: you can boot the media in a real Mageia system without installing it, to see what you will get after installation. The installation process is simpler, but you get lesser choices.

Details are given in the next sections.

1.2. Media

1.2.1. Definition

Here, a medium (plural: media) is an ISO image file that allows you to install and/or update Mageia and by extension any physical support the ISO file is copied to.

You can find them here [http://www.mageia.org/en/downloads/].

1.2.2. Classical installation media

1.2.2.1. Common features

• These ISOs use the traditional installer called drakx.

• They are able to make a clean install or an update from previous releases.

• Different media for 32 or 64 bit architectures.

• Some tools are available in the Welcome screen: Rescue System, Memory Test, Hardware Detection Tool.

• Each DVD contains many available desktop environments and languages.

• You'll be given the choice during the installation to add non free software.

1.2.3. Live media

1.2.3.1. Common features

• Can be used to preview the distribution without installing it on a HDD, and optionally install Mageia on to your HDD.

• Each ISO contains only one desktop environment (Plasma, GNOME or Xfce).

- Different media for 32 or 64 bit architectures.
- **Live ISOs can only be used to create clean installations, they cannot be used to upgrade from previous releases.**
- They contain non free software.

1.2.3.2. Live DVD Plasma

- Plasma desktop environment only.
- All languages are present.
- 64 bit architecture only.

1.2.3.3. Live DVD GNOME

- GNOME desktop environment only.
- All languages are present.
- 64 bit architecture only

1.2.3.4. Live DVD Xfce

- Xfce desktop environment only.
- All languages are present.
- 32 or 64 bit architectures.

1.2.4. Boot-only CD media

1.2.4.1. Common features

- Each one is a small image that contains no more than that which is needed to start the drakx installer and find drakx-installer-stage2 and other packages that are needed to continue and complete the install. These packages may be on the PC hard disk, on a local drive, on a local network or on the Internet.
- These media are very light (less than 100 MB) and are convenient when bandwidth is too low to download a full DVD, a PC without a DVD drive or a PC that can't boot from a USB stick.
- Different media for 32 or 64 bit architectures.
- English language only.

1.2.4.2. netinstall.iso

- Contains only free software, for those people who prefer not to use non-free software.

1.2.4.3. netinstall-nonfree.iso

- Contains non-free software (mostly drivers, codecs...) for people who need it.

1.3. Downloading and Checking Media

1.3.1. Downloading

Once you have chosen your ISO file, you can download it using either http or BitTorrent. In both cases, a window gives you some information, such as the mirror in use and an opportunity to change if the bandwidth is to low. If http is chosen, you may also see something like
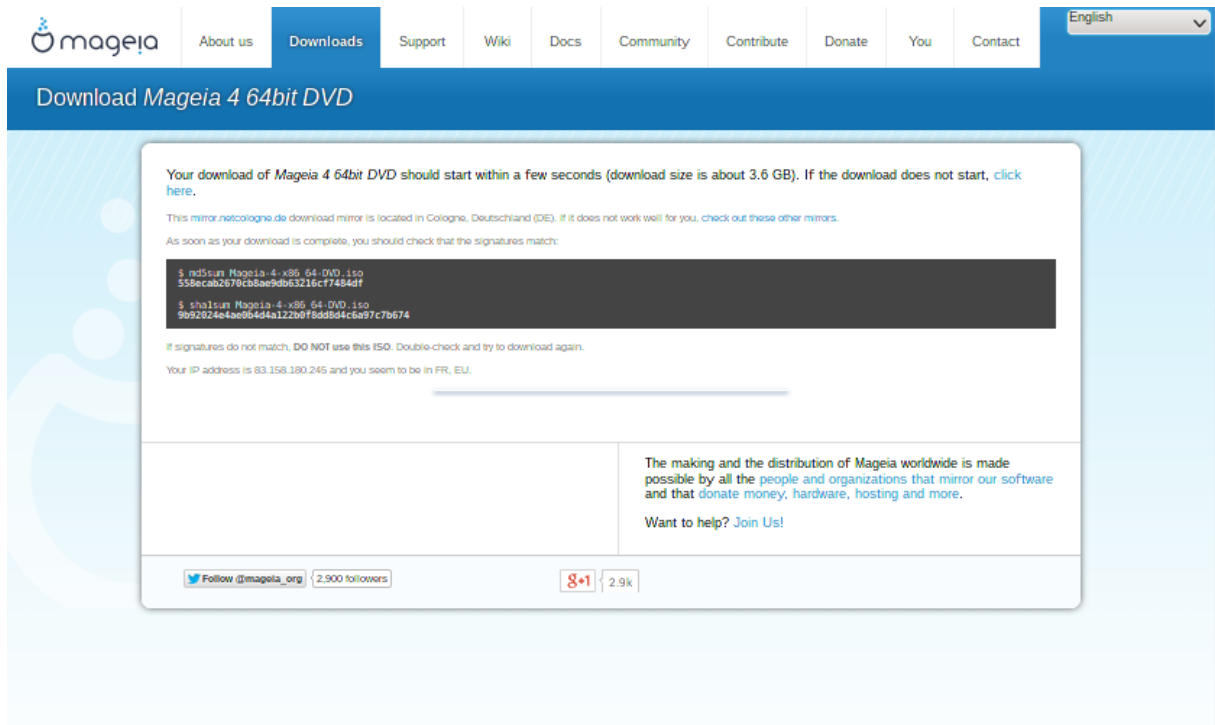
md5sum and sha1sum are tools to check the ISO integrity. Use only one of them. Keep one of them for further usage. Then a window similar to this one appears:
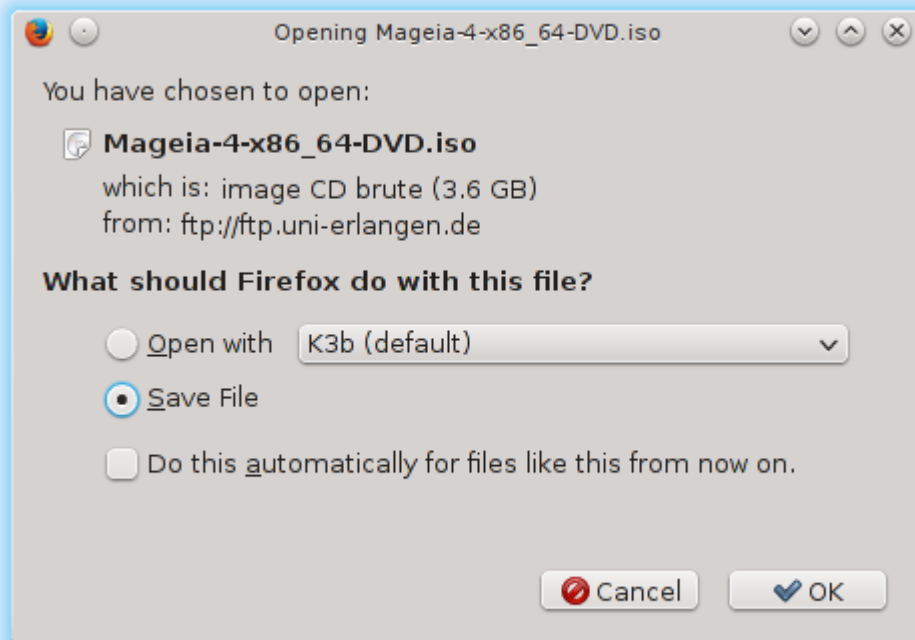
Check the radio button Save File.

1.3.2. Checking the integrity of the downloaded media

Both checksums are hexadecimal numbers calculated by an algorithm from the file to be downloaded. When you ask these algorithms to recalculate this number from your downloaded file, either you have the same number and your downloaded file is correct, or the number is different and you have a failure. A failure infers that you should retry the download or attempt a repair using BitTorrent.

Open a console, no need to be root, and:

- To use md5sum, type: [sam@localhost]$ **md5sum path/to/the/image/file.iso**.

- To use sha1sum, type: [sam@localhost]$ **sha1sum path/to/the/image/file.iso**.

and compare the obtained number on your computer (you may have to wait for a while) with the number given by Mageia. Example:

```
[sam5@localhost ~]$ md5sum /home/sam5/Downloads/Mageia-4-RC-x86_64-DVD.iso
ec1ce42c4b003b5e9bea6911968195c8  /home/sam5/Downloads/Mageia-4-RC-x86_64-DVD.iso
[sam5@localhost ~]$
```

1.4. Burn or dump the ISO

The checked ISO can now be burned to a CD or DVD or dumped to a USB stick. These operations are not a simple copy and aim to make a bootable medium.

1.4.1. Burning the ISO to a CD/DVD

Use whatever burner you wish but ensure the burning device is set correctly to **burn an image**, burn data or files is not correct. There is more information in the Mageia wiki [https://wiki.mageia.org/en/Writing_CD_and_DVD_images].

1.4.2. Dump the ISO to a USB stick

All Mageia ISOs are hybrids, which means you can 'dump' them to a USB stick and then use it to boot and install the system.

> "Dumping" an image onto a flash device destroys any previous file-system on the device; any other data will be lost and the partition capacity will be reduced to the image size.

To recover the original capacity, you must redo partitioning and re-format the USB stick.

1.4.2.1. Using a graphical tool within Mageia

You can use a graphical tool like IsoDumper [https://wiki.mageia.org/en/IsoDumper_Writing_ISO_images_on_USB_sticks]

1.4.2.2. Using a graphical tool within Windows

You could try:

- [Rufus](http://rufus.akeo.ie/?locale=en_US) [http://rufus.akeo.ie/?locale=en_US] using the "ISO image" option;

- [Win32 Disk Imager](http://sourceforge.net/projects/win32diskimager) [http://sourceforge.net/projects/win32diskimager]

1.4.2.3. Using Command line within a GNU/Linux system

It is potentially *dangerous* to do this by hand. You risk to overwrite a disc partition if you get the device-ID wrong.

You can also use the dd tool in a console:

1. Open a console
2. Become root with the command **su -** (don't forget the final '-')

```
[sam5@localhost ~]$ su -
Password:
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
```

3. Plug in your USB stick (do not mount it, this also means do not open any application or file manager that could access or read it)
4. Enter the command **fdisk -l**

```
[root@localhost ~]# fdisk -l

Disk /dev/sda: 298.1 GiB, 320072933376 bytes, 625142448 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disklabel type: dos
Disk identifier: 0x000db4bf
Partition 3 does not start on physical sector boundary.

Device     Boot     Start       End    Blocks  Id System
/dev/sda1  *          2048  21256191  10627072  83 Linux
/dev/sda2         21256192  63528959  21136384  83 Linux
/dev/sda3         63530964 625137344 280803190+  5 Extended
/dev/sda5         63531008  84873215  10671104  83 Linux
/dev/sda6         84875264 127016959  21070848  83 Linux
/dev/sda7        127019008 135985151   4483072  82 Linux swap / Solaris
/dev/sda8        135987200 198598655  31305728  83 Linux
/dev/sda9        198600704 471588863 136494080  83 Linux
/dev/sda10       471590912 496777994  12593541+ 83 Linux
/dev/sda11       496781312 504955079   4086884  82 Linux swap / Solaris
/dev/sda12       504958976 625137344  60089184+ 83 Linux


Disk /dev/sdb: 7.5 GiB, 8011087872 bytes, 15646656 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x15005631

Device     Boot Start     End   Blocks  Id System
/dev/sdb1  *        1  7598079 3799039+ 17 Hidden HPFS/NTFS

[root@localhost ~]# 
```

Alternatively, you can get the device name with the command `dmesg`: at end, you see the device name starting with *sd*, and *sdd* in this case:

```
[72594.604531] usb 1-1: new high-speed USB device number 27 using
 xhci_hcd
[72594.770528] usb 1-1: New USB device found, idVendor=8564,
 idProduct=1000
[72594.770533] usb 1-1: New USB device strings: Mfr=1, Product=2,
 SerialNumber=3
[72594.770536] usb 1-1: Product: Mass Storage Device
[72594.770537] usb 1-1: Manufacturer: JetFlash
[72594.770539] usb 1-1: SerialNumber: 18MJTWLMPUCC3SSB
[72594.770713] usb 1-1: ep 0x81 - rounding interval to 128 microframes,
 ep desc says 255 microframes
[72594.770719] usb 1-1: ep 0x2 - rounding interval to 128 microframes,
 ep desc says 255 microframes
[72594.771122] usb-storage 1-1:1.0: USB Mass Storage device detected
[72594.772447] scsi host8: usb-storage 1-1:1.0
```

```
[72595.963238] scsi 8:0:0:0: Direct-Access     JetFlash Transcend 2GB
 1100 PQ: 0 ANSI: 4
[72595.963626] sd 8:0:0:0: [sdd] 4194304 512-byte logical blocks: (2.14
 GB/2.00 GiB)
[72595.964104] sd 8:0:0:0: [sdd] Write Protect is off
[72595.964108] sd 8:0:0:0: [sdd] Mode Sense: 43 00 00 00
[72595.965025] sd 8:0:0:0: [sdd] No Caching mode page found
[72595.965031] sd 8:0:0:0: [sdd] Assuming drive cache: write through
[72595.967251]  sdd: sdd1
[72595.969446] sd 8:0:0:0: [sdd] Attached SCSI removable disk
```

5. Find the device name for your USB stick (by its size), for example /dev/sdb in the screenshot above, it is a 8GB USB stick.

6. Enter the command: # **dd if=path/to/the/ISO/file of=/dev/sdX bs=1M**

   Where X=your device name eg: /dev/sdc

   Example: # **dd if=/home/user/Downloads/Mageia-6-x86_64-DVD.iso of=/dev/sdb bs=1M**

7. Enter the command: # **sync**

8. Unplug your USB stick, it is done

2. Boot Mageia as Live system

2.1. Booting the medium

2.1.1. From a disc

You can boot directly from the media you used to burn your image (CD-ROM, DVD-ROM...). You usually just need to insert it in your CD/DVD drive for the bootloader to launch the installation automatically after rebooting the computer. If that does not happen you may need to reconfigure your BIOS or press one key that will offer you to choose the peripheral from which the computer will boot.

According to which hardware you have, and how it is configured, you get either one or another of the two screens below.

2.1.2. From a USB device

You can boot from the USB device on which you dumped your image ISO. According to your BIOS settings, the computer boots perhaps directly on the USB device already plugged in a port. If that does not happen you may need to reconfigure your BIOS or press one key that will offer you to choose the peripheral from which the computer will boot.

2.2. In BIOS/CSM/Legacy mode

First screen while booting in BIOS mode

In the middle menu, you have the choice between three actions:

- Boot Mageia: That means Mageia 5 will start from the connected media (CD/DVD or USB stick) without writing anything on the disk, so expect a very slow system. Once the boot is done, you can proceed to the installation on a hard disk.

- Install Mageia: This choice will directly install Mageia on a hard disk.

- Boot from hard disk: This choice allows to boot from hard disk, as usual, when no media (CD/DVD or USB stick) is connected. (not working with Mageia 5).

In the bottom menu, are the Boot Options:

- F1 - Help. Explain the options "splash", "apm", "acpi" and "Ide"

- F2 - Language. Choose the display language of the screens.

- F3 - Screen resolution. Choose between text, 640x400, 800x600, 1024x728

- F4 - CD-Rom. CD-Rom or Other. Normally, the installation is performed from the inserted installation medium. Here, select other sources, like FTP or NFS servers. If the installation is carried out in a network with an SLP server, select one of the installation sources available on the server with this option.

- F5 - Driver. Yes or No. The system is aware about the presence of an optional disk with a driver update and will require its insertion during installation process.

- F6 - Kernel options. This is a way to specify options according to your hardware and the drivers to use.

2.3. In UEFI mode


First screen while booting on UEFI system from disk

You have only the choice to run Mageia in Live mode (first choice) or to process the installation (second choice).

If you booted from a USB stick, you get two supplemental lines which are a duplicata of the previous lines suffixed with "USB". You have to choose them.

In each case, the first steps will be the same to choose language, timezone and keyboard, then the processes differ, with additional steps in Live mode.
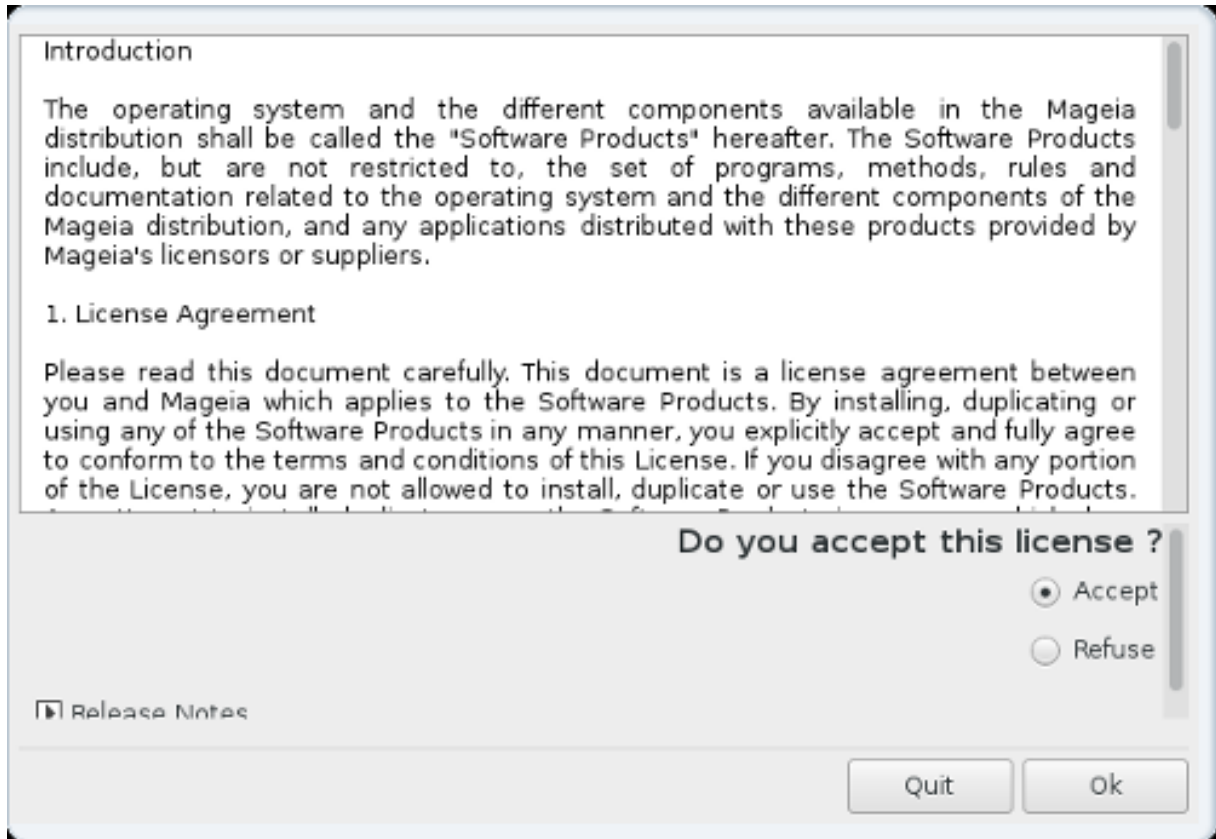
3. Please choose a language to use

Select your preferred language. Mageia will use this selection during the installation and for your installed system.
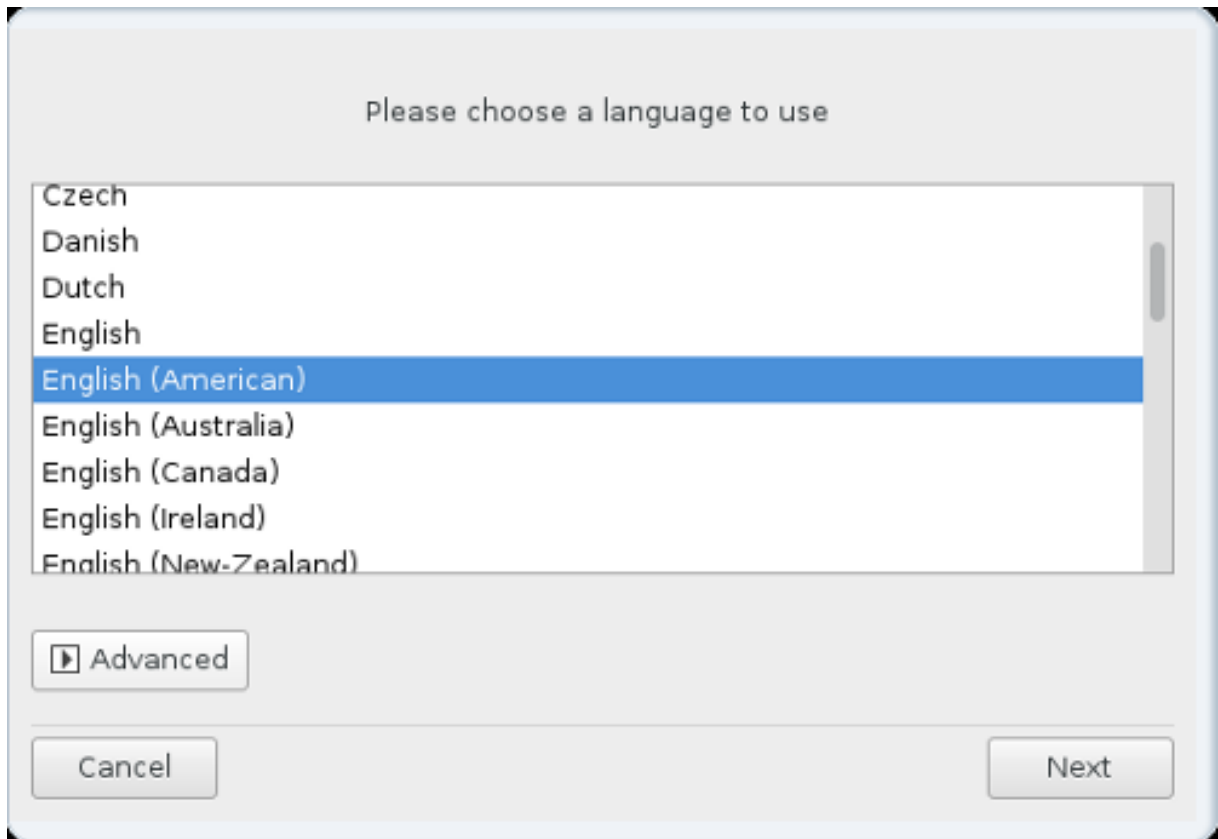
- Mageia uses UTF-8 (Unicode) support by default.

- You can change the language of your system after installation in the Mageia Control Center -> System -> Manage localization for your system.

4. License and Release Notes

Introduction

The operating system and the different components available in the Mageia distribution shall be called the "Software Products" hereafter. The Software Products include, but are not restricted to, the set of programs, methods, rules and documentation related to the operating system and the different components of the Mageia distribution, and any applications distributed with these products provided by Mageia's licensors or suppliers.

1. License Agreement

Please read this document carefully. This document is a license agreement between you and Mageia which applies to the Software Products. By installing, duplicating or using any of the Software Products in any manner, you explicitly accept and fully agree to conform to the terms and conditions of this License. If you disagree with any portion of the License, you are not allowed to install, duplicate or use the Software Products.

Do you accept this license ?

⦿ Accept

◯ Refuse

▶ Release Notes

Quit   Ok

4.1. License Agreement

Before installing Mageia, please read the license terms and conditions carefully.

These terms and conditions apply to the entire Mageia distribution and must be accepted before you can continue.
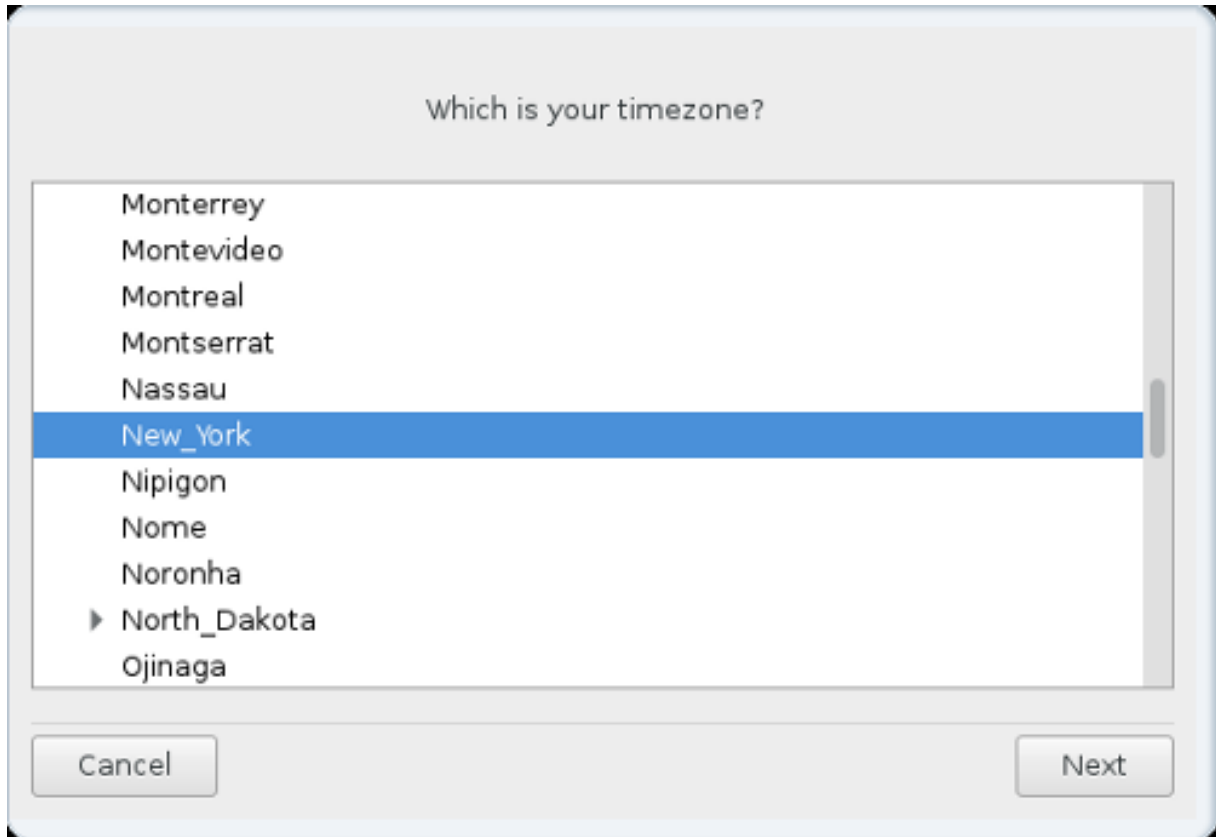
To accept, simply select Accept and then click on Next.

If you decide not to accept these conditions, then we thank you for looking. Clicking Quit will reboot your computer.

4.2. Release Notes

Important information are given about this release of Mageia and are accessible clicking on the Release Notes button.
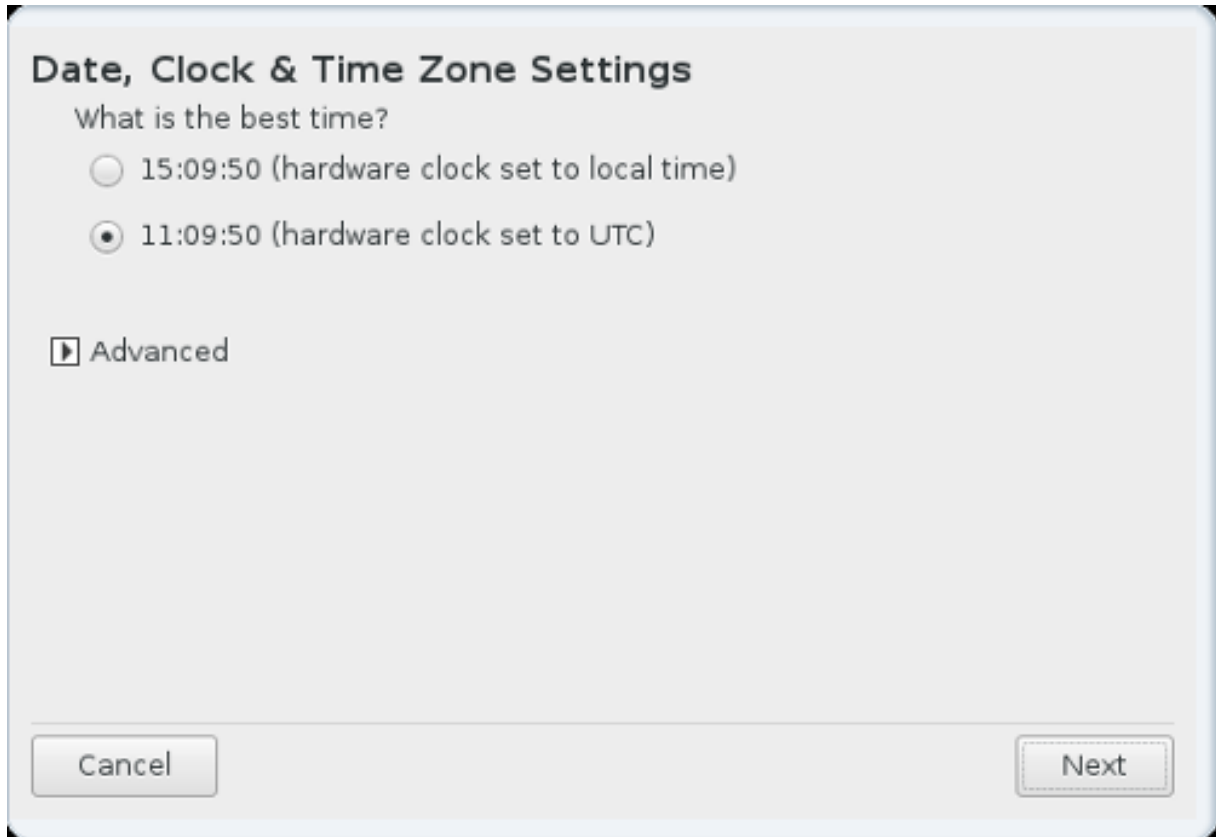
5. Configure your Timezone

Choose your time zone by choosing your country or a city close to you in the same time zone.

In next screen you can choose to set your hardware clock to local time or to GMT, also known as UTC.

If you have more than one operating system on your computer, make sure they are all set to local time, or all to UTC/GMT.
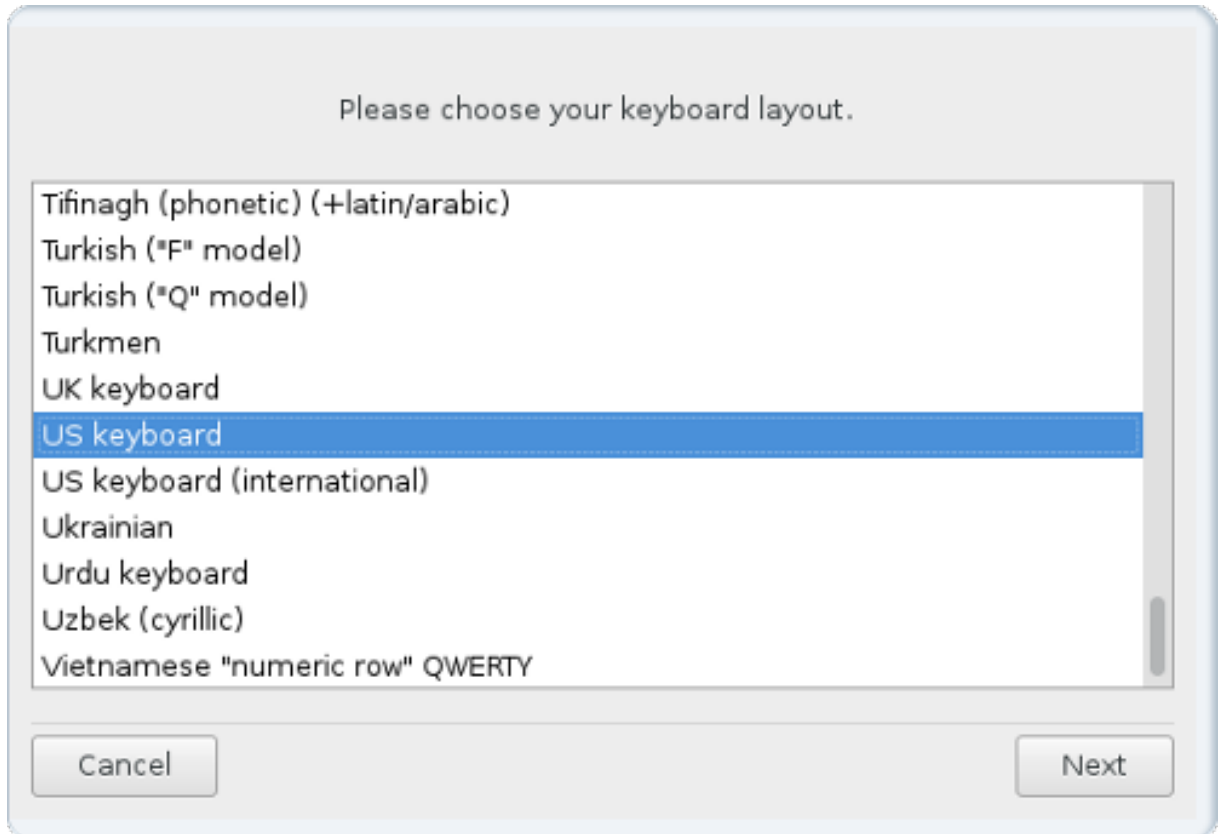
6. Clock settings

Date, Clock & Time Zone Settings

What is the best time?

○ 15:09:50 (hardware clock set to local time)

◉ 11:09:50 (hardware clock set to UTC)

▶ Advanced

Cancel   Next

In this step, you have to select on which time your internal clock is set, either local time or UTC time.

In advanced tab, you will find more options about clock settings.

7. Select keyboard

Please choose your keyboard layout.

Tifinagh (phonetic) (+latin/arabic)
Turkish ("F" model)
Turkish ("Q" model)
Turkmen
UK keyboard
US keyboard
US keyboard (international)
Ukrainian
Urdu keyboard
Uzbek (cyrillic)
Vietnamese "numeric row" QWERTY

Cancel   Next

You will be required to set the keyboard layout you wish to use in Mageia. The default one is selected according to your language and timezone previously selected.

8. Testing Mageia as Live system

8.1. Live mode
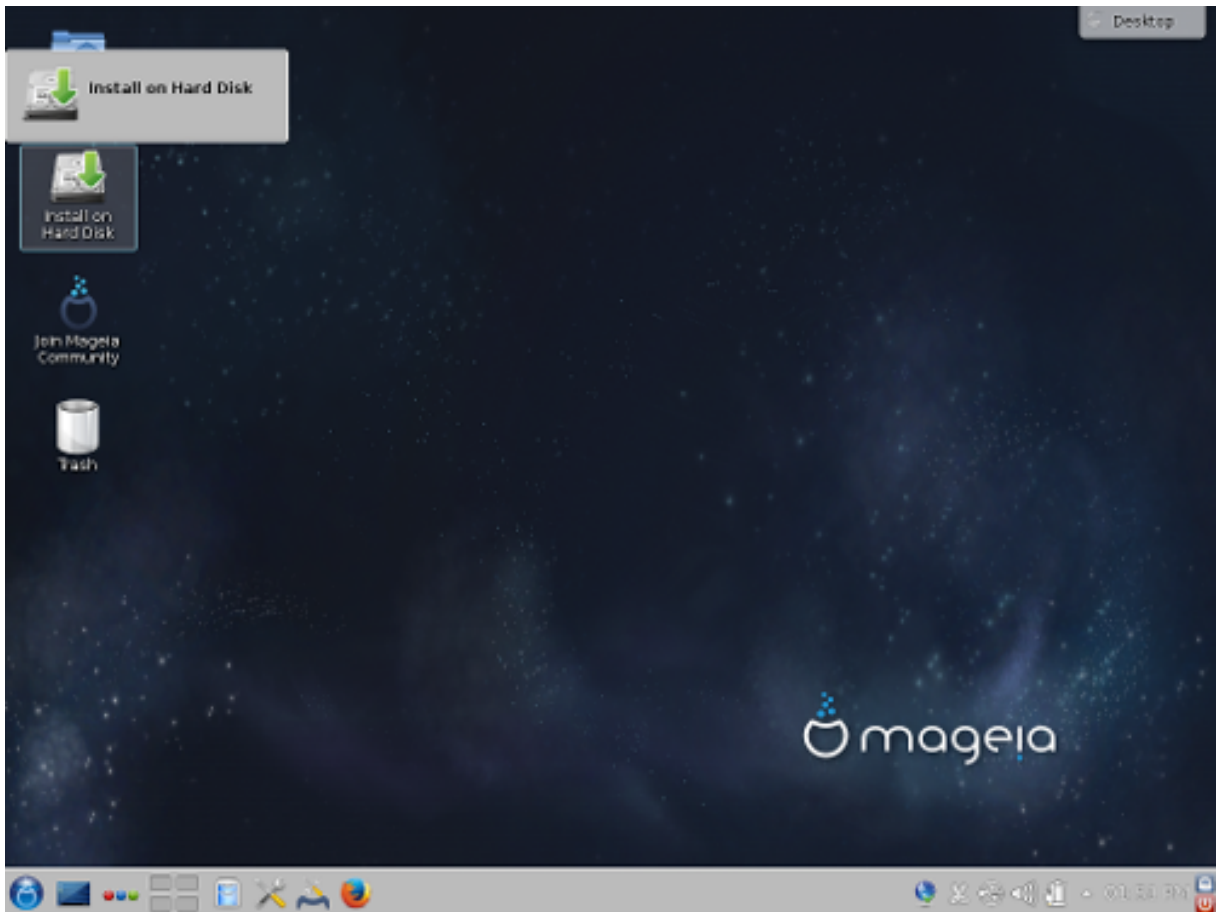
You get this screen if you selected "Boot Mageia". If not, you get the "Partitioning step"

8.1.1. Testing hardware

One of the Live mode goals is to test if the hardware is correctly managed by Mageia. You can check if all devices have a driver in the Hardware section of the Mageia Control Center. You can test the most current devices:

- network interface: configure it with net_applet
- graphical card: if you see the previous screen, it's already OK.
- webcam:
- sound: a jingle has already been played
- printer: configure it and print a test page
- scanner: scan a document from ...

If all is OK for you, you can process to the installation. If not, you can leave with the quit button.
The configuration settings you made here are kept for the installation.

### *8.1.2. Launch installation*
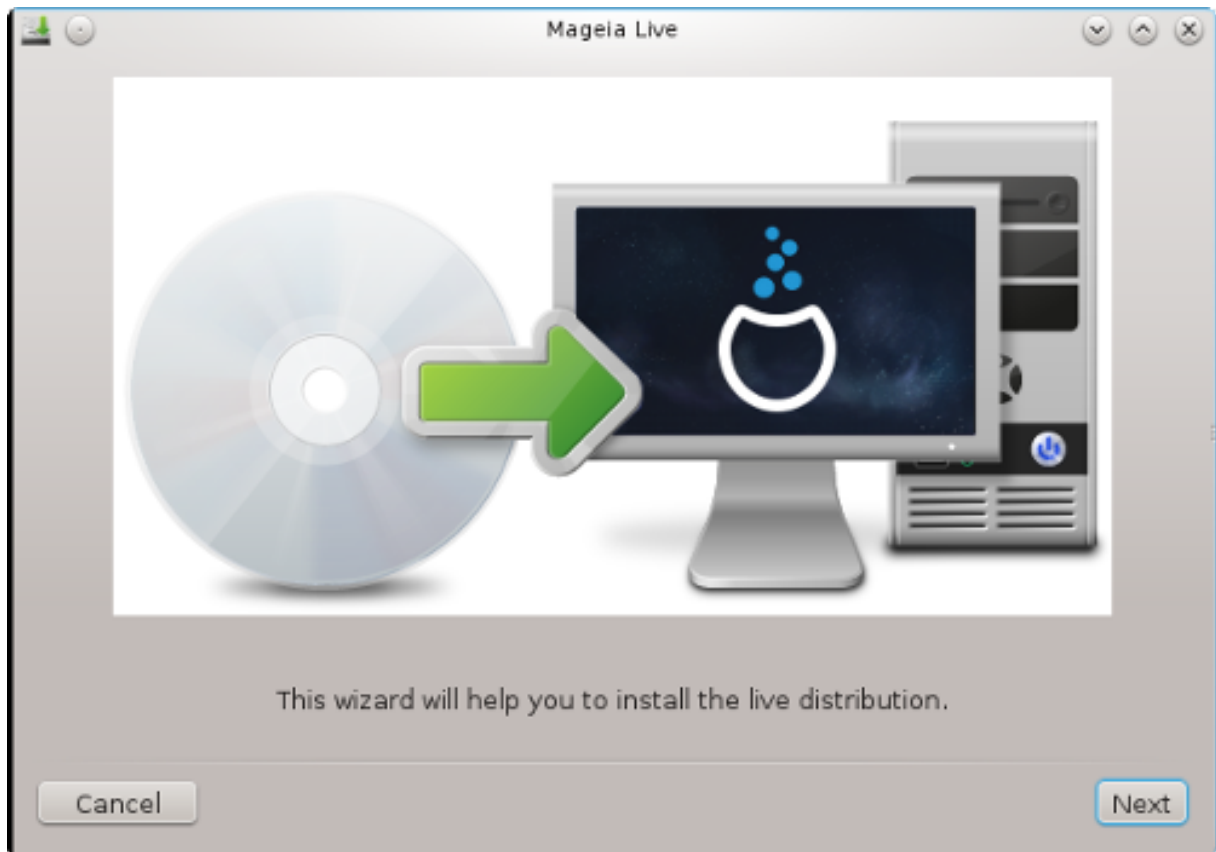
To launch the installation of Mageia LiveCD or Live DVD to the hard disc or SSD drive, simply click on the icon "Install on Hard Disk". You will get this screen, and then the "Partitioning step" as for the direct installation.

9. Partitioning

In this screen you can see the content of your hard drive(s) and see the solutions the DrakX partitioning wizard found for where to install Mageia.

The options available from the list below will vary depending on your particular hard drive(s) layout and content.
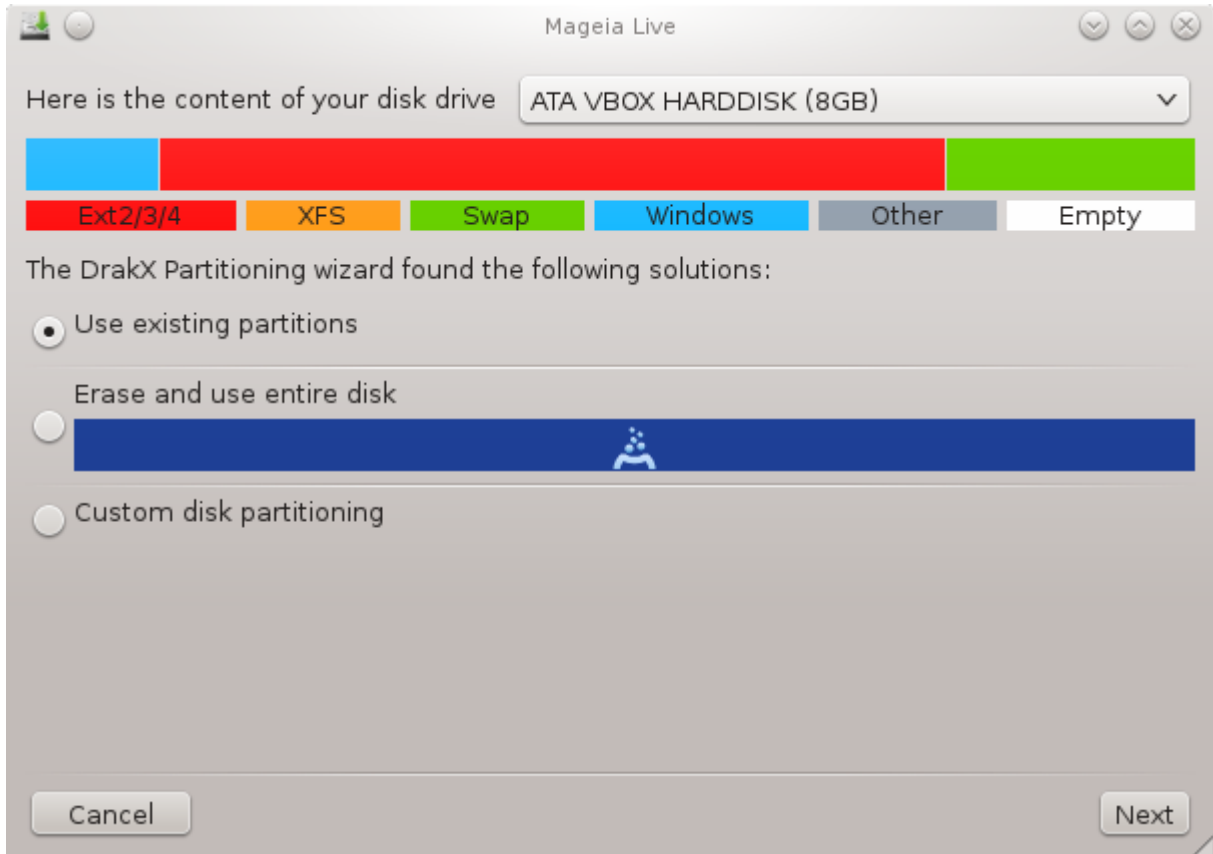
- Use Existing Partitions

  If this option is available, then existing Linux compatible partitions have been found and may be used for the installation.

- Use Free Space

  If you have unused space on your hard drive then this option will use it for your new Mageia installation.

- Use Free Space on a Windows Partition

  If you have unused space on an existing Windows partition, the installer may offer to use it.

  This can be a useful way of making room for your new Mageia installation, but is a risky operation so you should make sure you have backed up all important files!

  Note that this involves shrinking the size of the Windows partition. The partition must be "clean", meaning that Windows must have closed down correctly the last time it was used. It must also have been defragmented, although this is not a guarantee that all files in the partition have been moved out of the area that is about to be used. It is highly recommended to back up your personal files.

  With this option, the installer displays the remaining Windows partition in light blue and the future Mageia partition in dark blue with their intended sizes just under. You have the possibility to adapt these sizes by clicking and dragging the gap between both partitions. See the screen-shot below.
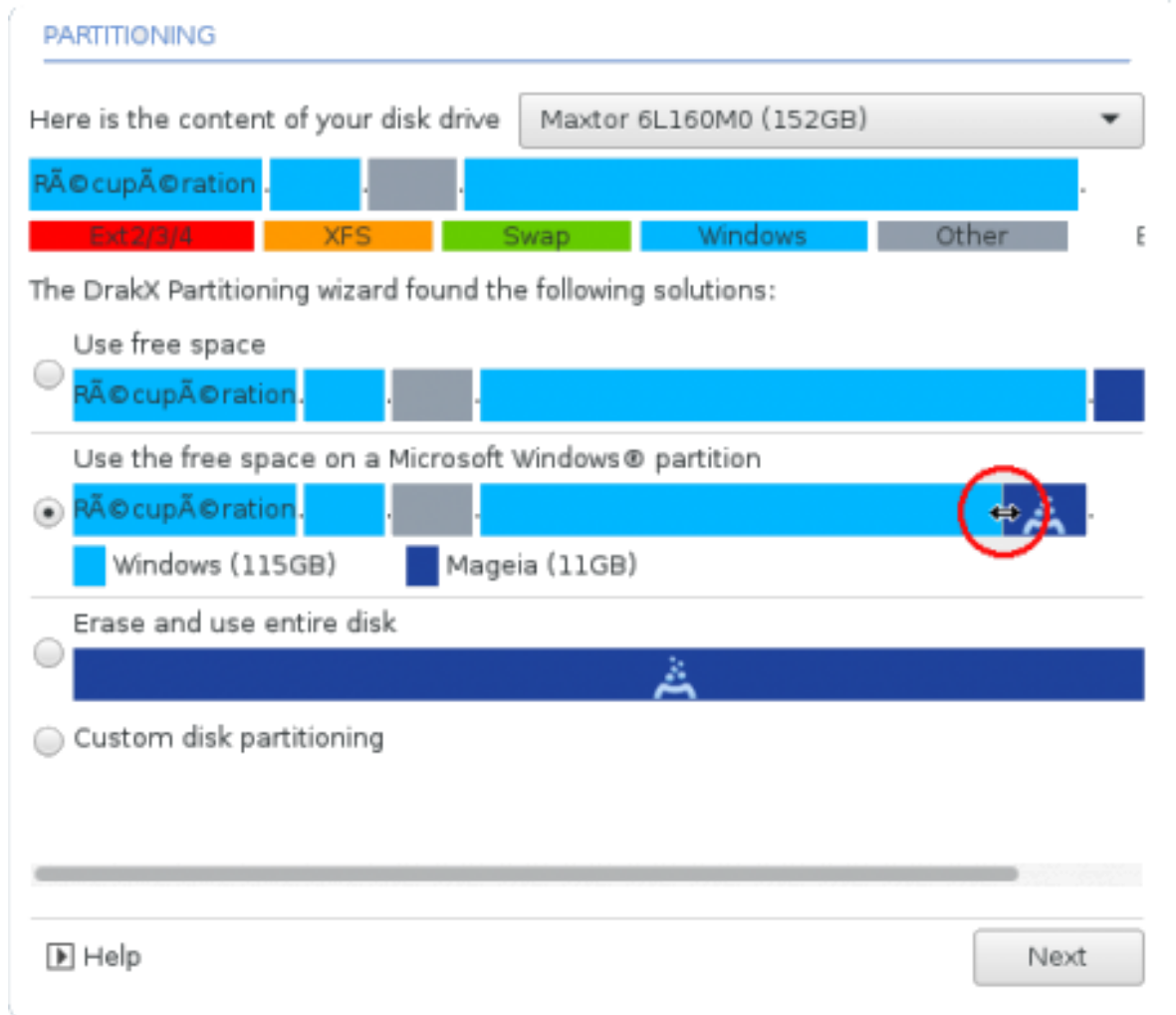
- Erase and use Entire Disk.

  This option will use the complete drive for Mageia.

  Note! This will erase ALL data on the selected hard drive. Take care!

  If you intend to use part of the disk for something else, or you already have data on the drive that you are not prepared to lose, then do not use this option.

- Custom disk partitioning

  This gives you complete control over the placing of the installation on your hard drive(s).

Partition sizing:

The installer will share the available place out according to the following rules:

- If the total available place is lower than 50 GB, only one partition is created for /, there is no separate partition for /home.

- If the total available place is over 50 GB, then three partitions are created

  – 6/19 of the total available place is allocated to / with a maximum of 50 GB

  – 1/19 is allocated to swap with a maximum of 4 GB

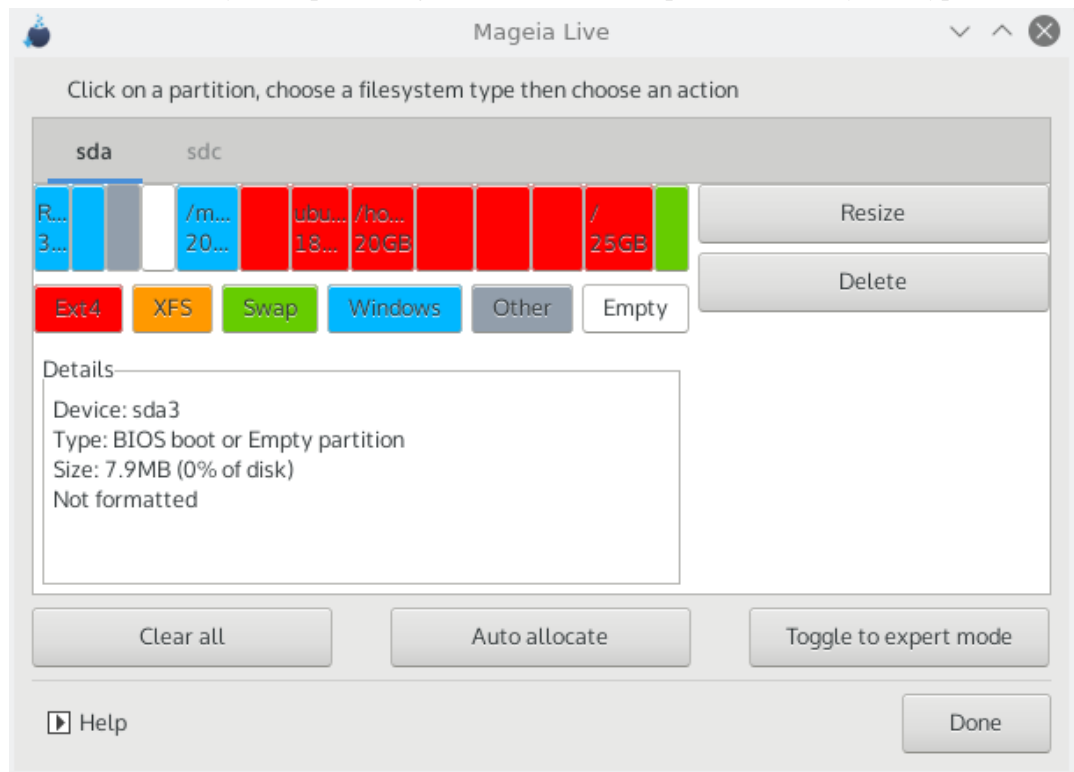 – the rest (at least 12/19) is allocated to /home

That means that from 160 GB and over of available place, the installer will create three partitions: 50 GB for /, 4 GB for swap and the rest for /home.
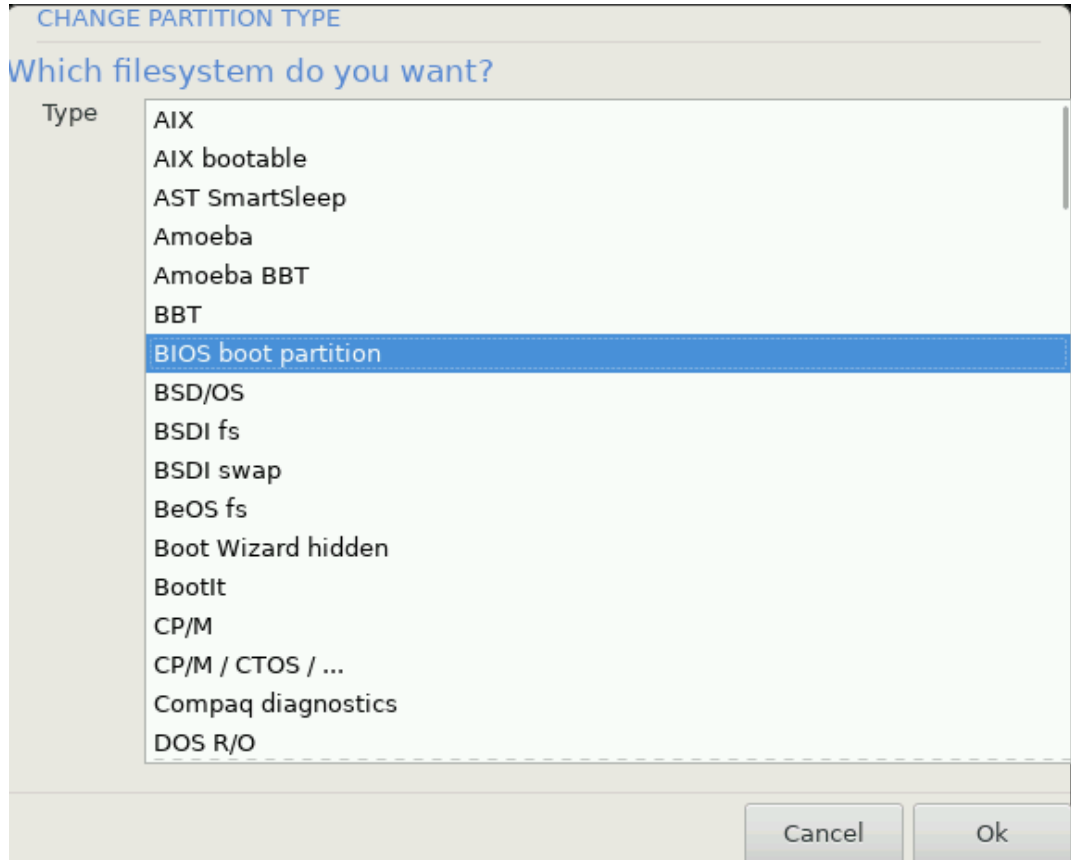

If you are using an UEFI system, the ESP (EFI System Partition) will be automatically detected, or created if it does not exist yet, and mounted on /boot/EFI. The "Custom disk partitioning" option is the only one that allows to check it has been correctly done

---

If you are using a Legacy (as known as CSM or BIOS) system with a GPT disk, you need to create a Bios boot partition if not already existing. It is an about 1 MiB partition with no mount point. Choose Section 12, "Custom disk partitioning with DiskDrake" to be able to create it with the Installer like any other partition, just select BIOS boot partition as filesystem type.

CHANGE PARTITION TYPE

Which filesystem do you want?

Type

- AIX
- AIX bootable
- AST SmartSleep
- Amoeba
- Amoeba BBT
- BBT
- BIOS boot partition
- BSD/OS
- BSDI fs
- BSDI swap
- BeOS fs
- Boot Wizard hidden
- BootIt
- CP/M
- CP/M / CTOS / ...
- Compaq diagnostics
- DOS R/O

Cancel   Ok

Some newer drives are now using 4096 byte logical sectors, instead of the previous standard of 512 byte logical sectors. Due to lack of available hardware, the partitioning tool used in the installer has not been tested with such a drive. Also some ssd drives now use an erase block size over 1 MB. We suggest to pre-partition the drive, using an alternative partitioning tool like gparted, if you own such a device, and to use the following settings:

"Align to" "MiB"

"Free space preceding (MiB)" "2"

Also make sure all partitions are created with an even number of megabytes.

10. Choose the mount points
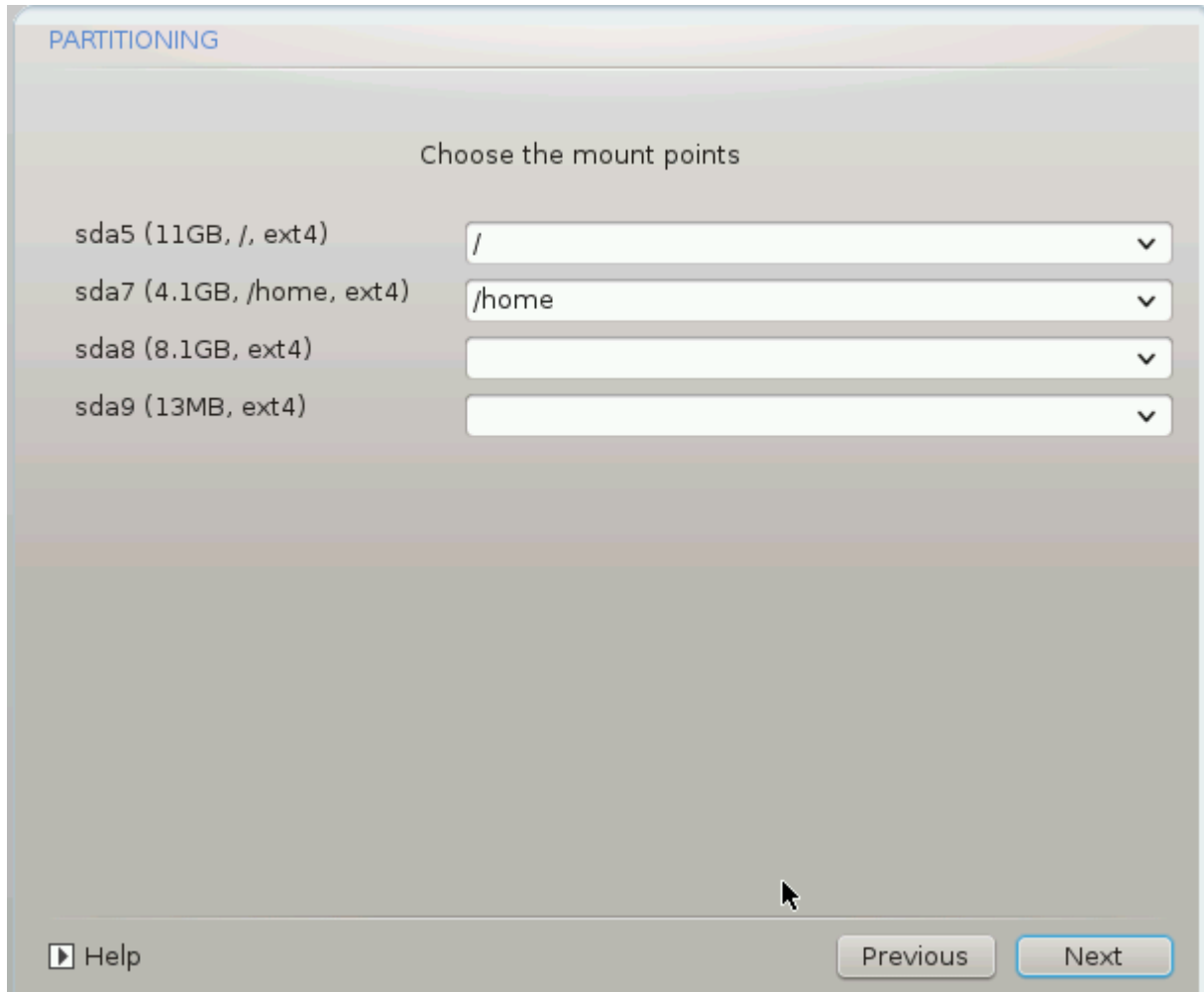
Here you see the Linux partitions that have been found on your computer. If you don't agree with the DrakX suggestions, you can change the mount points.

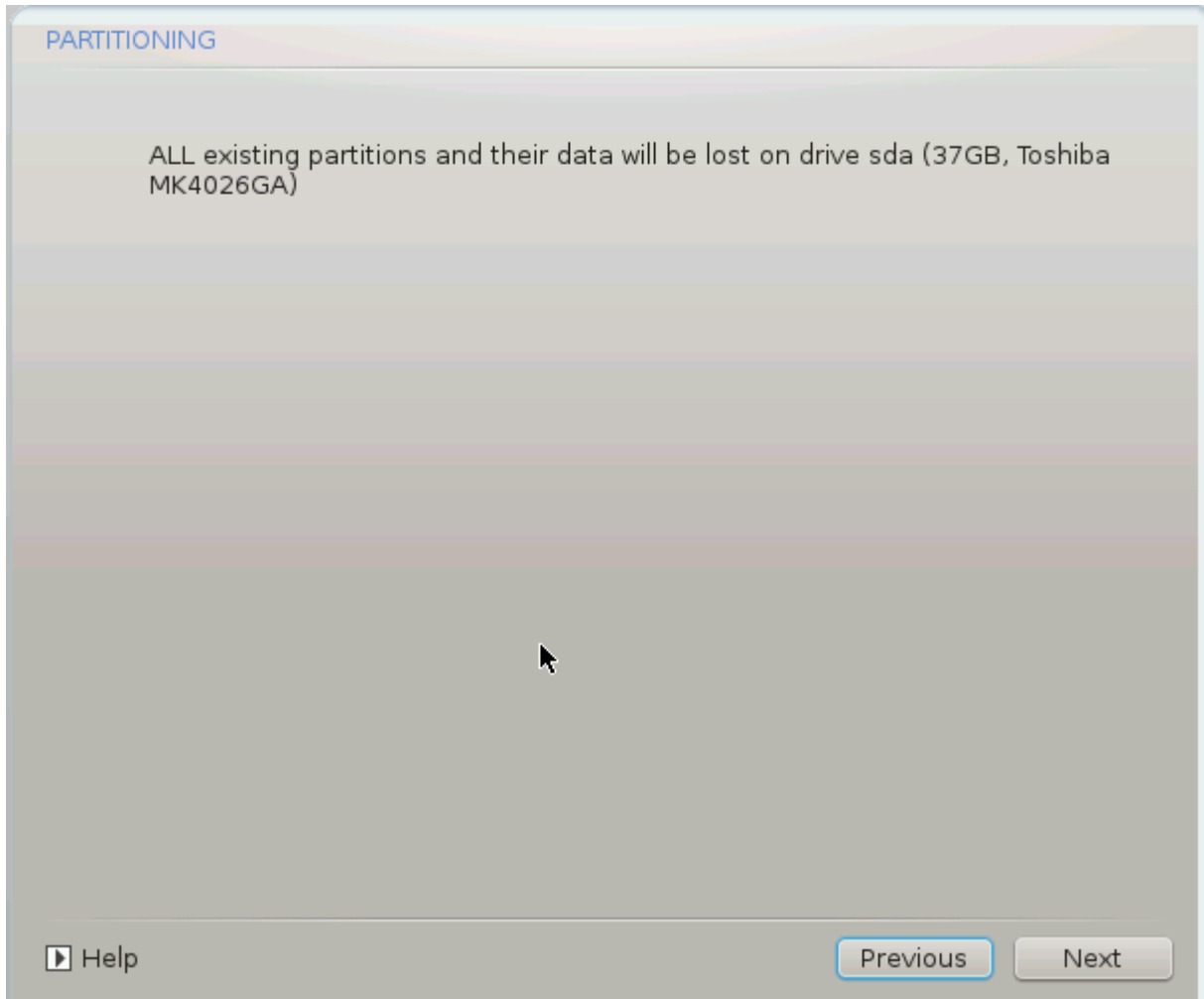If you change anything, make sure you still have a / (root) partition.

- Every partition is shown as follows: "Device" ("Capacity", "Mount point", "Type").

- "Device", is made up of: "hard drive", ["hard drive number"(letter)], "partition number" (for example, "sda5").

- If you have many partitions, you can choose many different mount points from the drop down menu, such as /, /home and /var. You can even make your own mount points, for instance /video for a partition where you want to store your films, or /cauldron-home for the /home partition of a cauldron install.

- For partitions you don't need to have access to, you can leave the mount point field blank.

Choose Previous if you are not sure what to choose, and then tick Custom disk partitioning. In the screen that follows, you can click on a partition to see its type and size.

If you are sure the mount points are correct, click on Next, and choose whether you only want to format the partition(s) DrakX suggests, or more.

11. Confirm hard disk to be formatted

PARTITIONING

ALL existing partitions and their data will be lost on drive sda (37GB, Toshiba MK4026GA)

Help   Previous   Next

Click on Previous if you are not sure about your choice.

Click on Next if you are sure and want to erase every partition, every operating system and all data on that hard disk.

12. *Custom disk partitioning with DiskDrake*
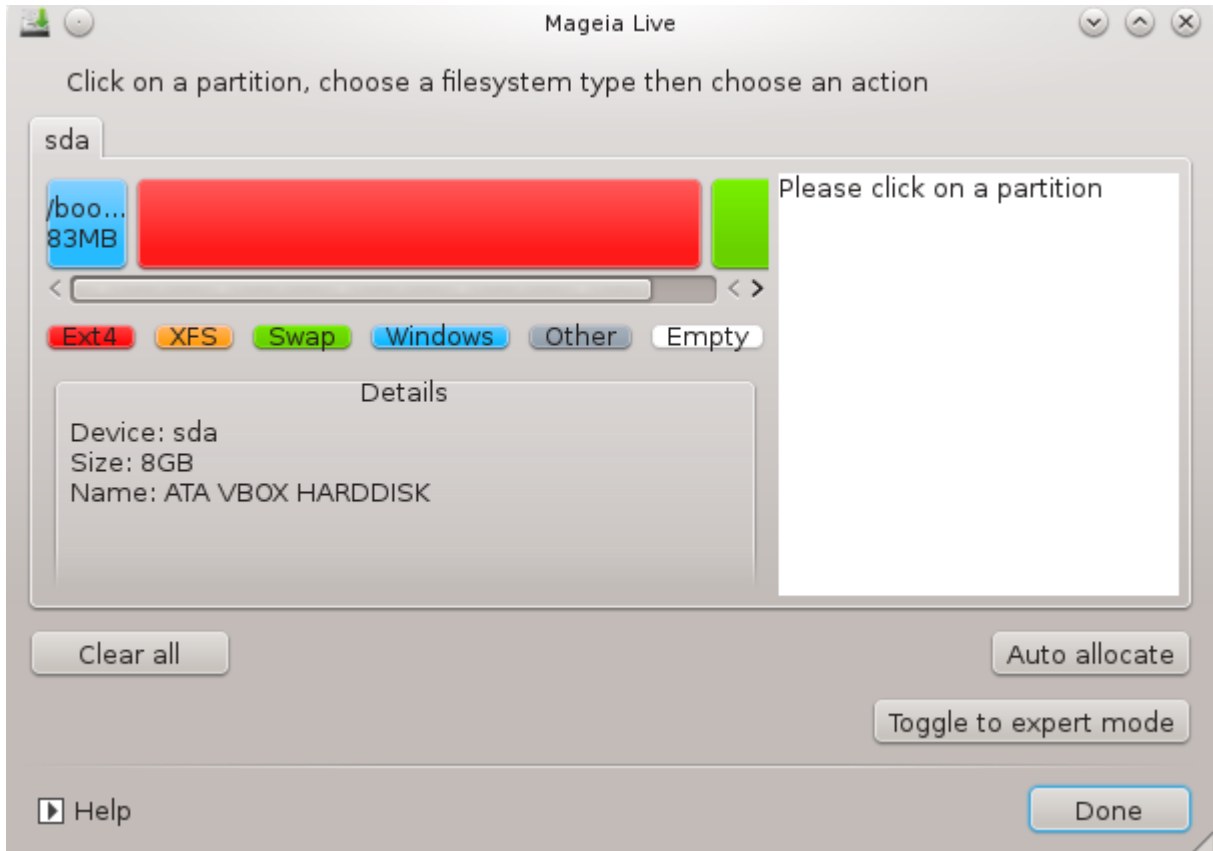
> If you wish to use encryption on your / partition you must ensure that you have a separate /boot partition. The encryption option for the /boot partition must NOT be set, otherwise your system will be unbootable.

Adjust the layout of your disk(s) here. You can remove or create partitions, change the filesystem of a partition or change its size and even view what is in them before you start.

There is a tab for every detected hard disk or other storage device, like an USB key. For example sda, sdb and sdc if there are three of them.

Push Clear all to wipe all partitions on the selected storage device

For all other actions: click on the desired partition first. Then view it, or choose a filesystem and a mount point, resize it or wipe it. Toggle to expert mode (or Expert mode) gives some more tools like to add a label or to choose a partition type.
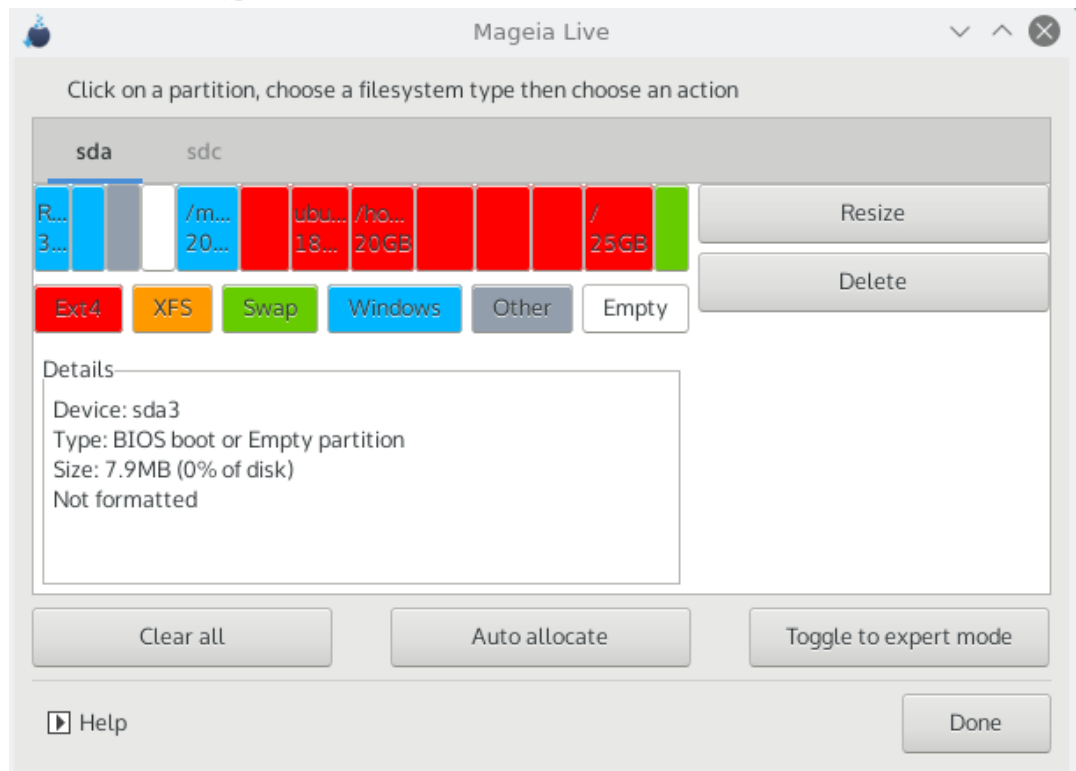
Continue until you adjusted everything to your wishes.

Click Done when you're ready.

> If you are installing Mageia on an UEFI system, check that an ESP (EFI System Partition) is present and correctly mounted on /boot/EFI (see below)
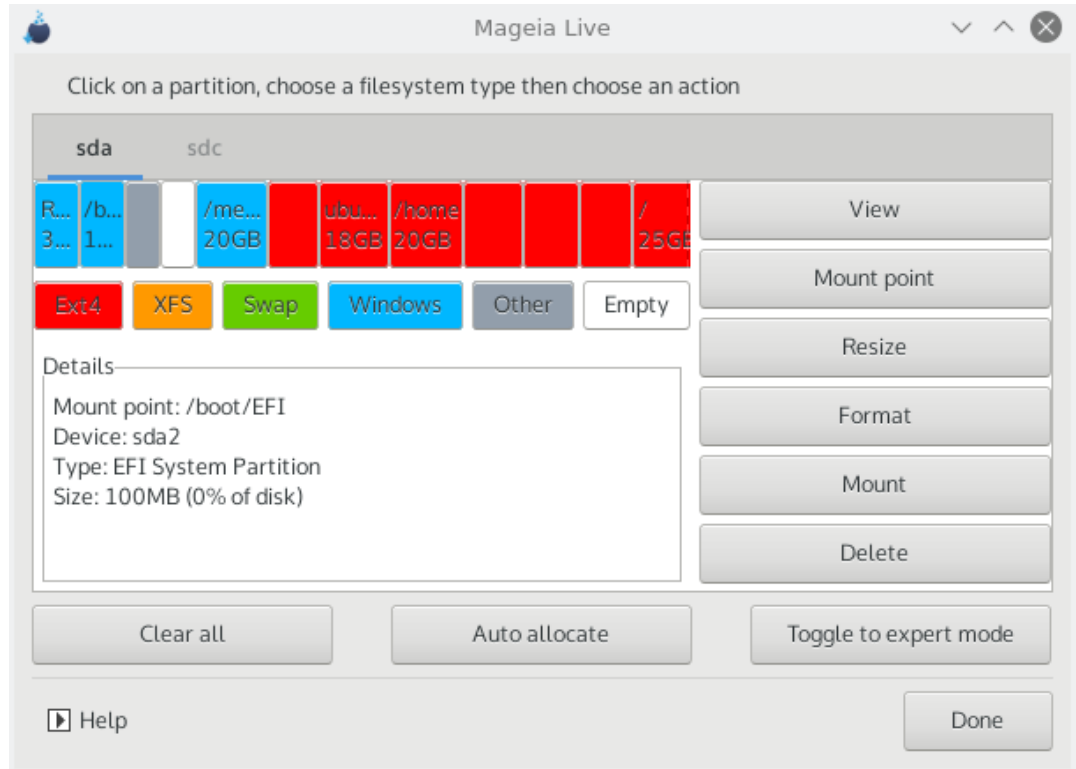
If you are installing Mageia on a Legacy/GPT system, check that a BIOS boot partition is present and of the correct type

13. Formatting

Choose the partitions you want to format

☑ sda2 (6.6GB, /, ext4)

▶ Advanced

Cancel   Next
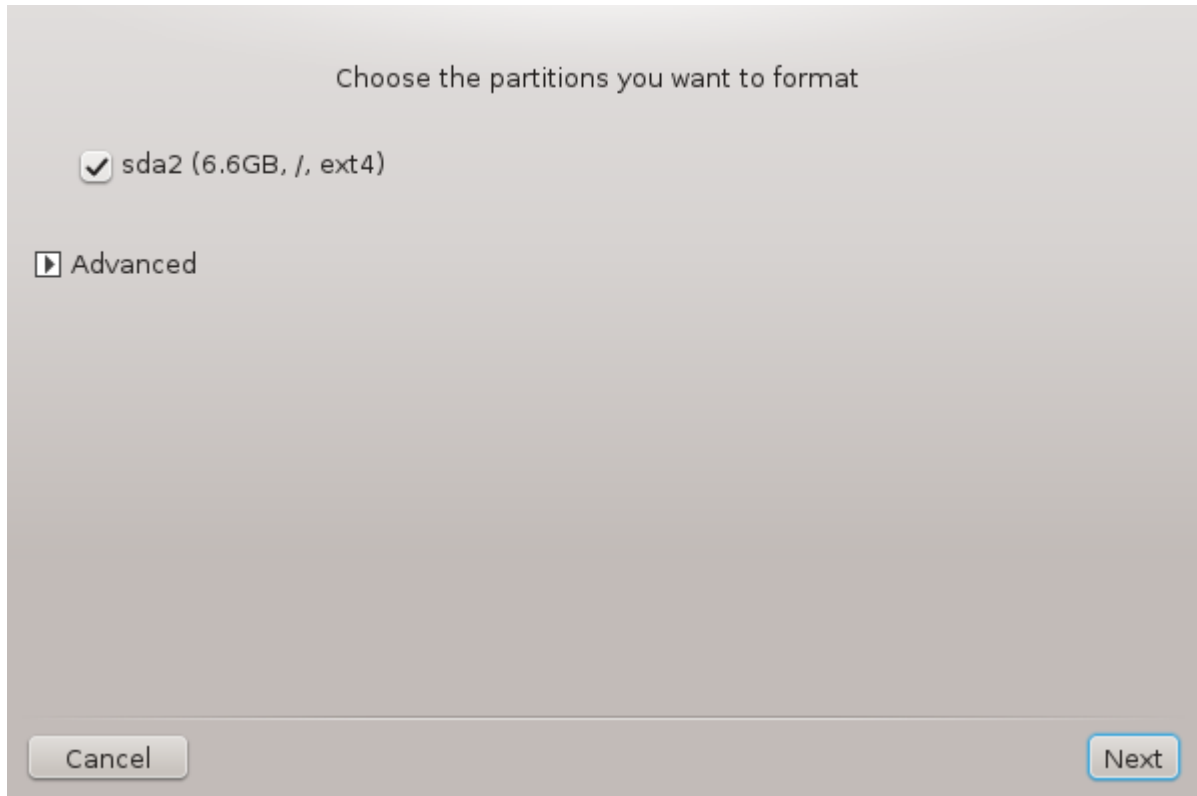
Here you can choose which partition(s) you wish to format. Any data on partitions *not* marked for formatting will be saved.

Usually at least the partitions DrakX selected, need to be formatted

Click on Advanced to choose partitions you want to check for so called *bad blocks*

> If you're not sure you have made the right choice, you can click on Previous, again on Previous and then on Custom to get back to the main screen. In that screen you can choose to view what is in your partitions.

When you are confident about the selection, click on Next to continue.

14. Keep or delete unused material
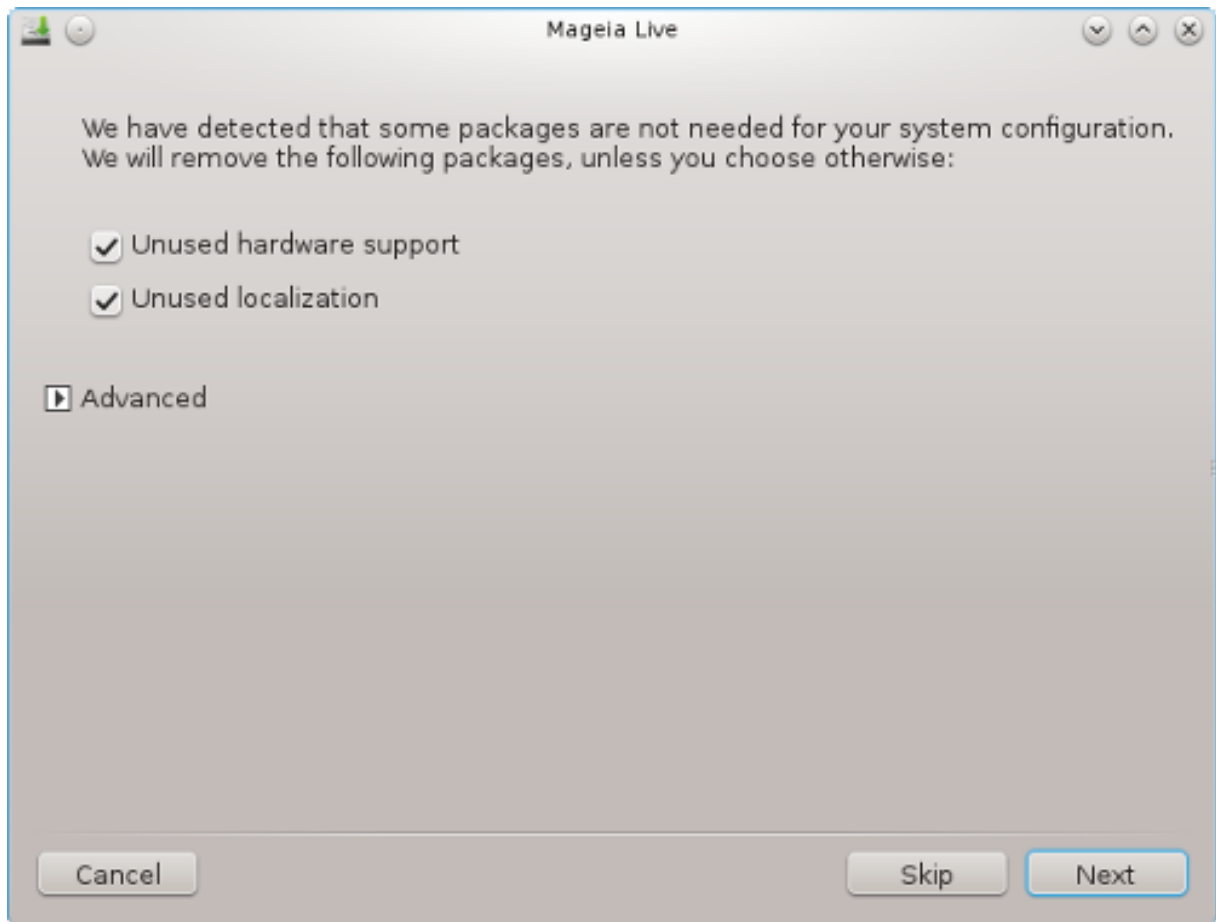
In this step, the installer looks for unused locales packages and unused hardware packages. Then it proposes you to delete them. It is a good idea to accept, except if you prepare an installation which has to run on different hardware.

The next step is the copying of files on hard disk. This takes some minutes. At the end, you get a blank screen for some time, it's normal.
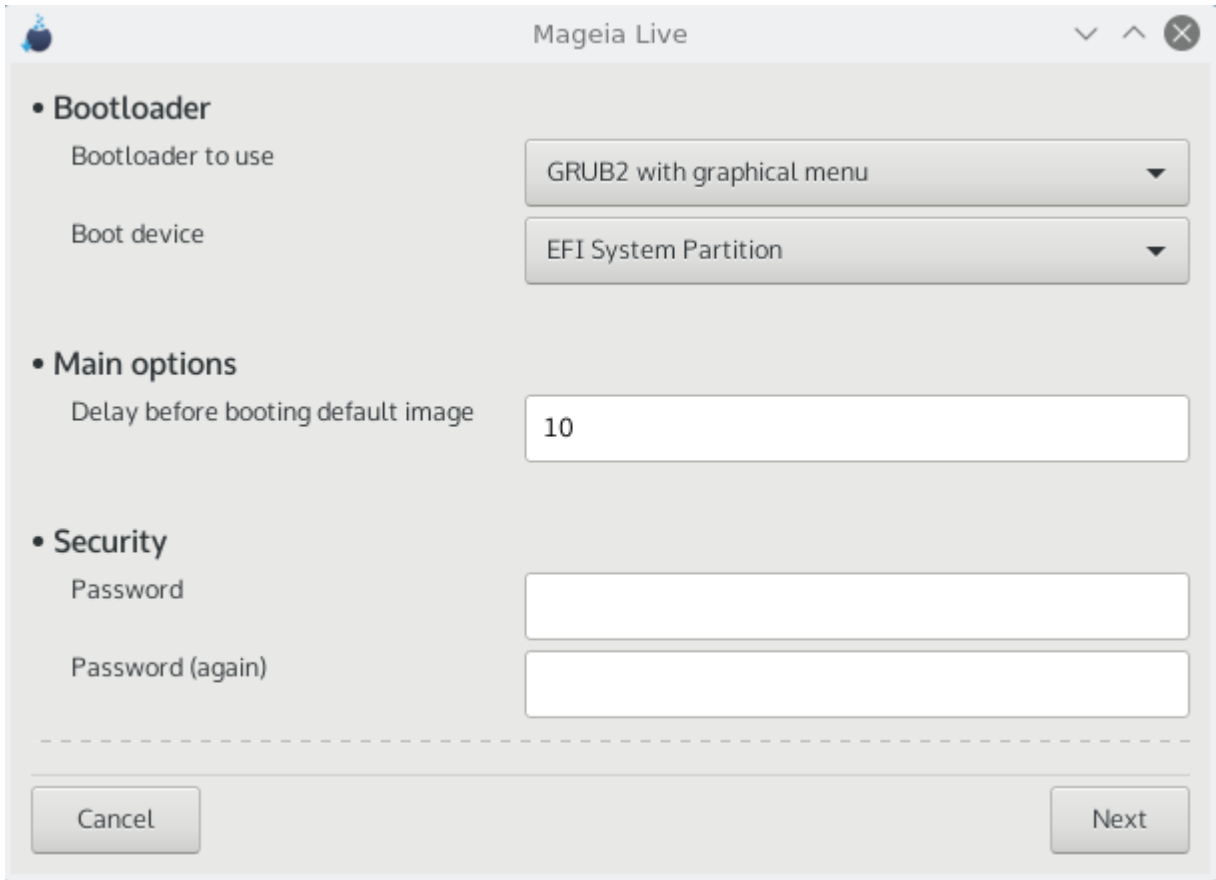
15. Bootloader main options

15.1. Bootloader interface

By default, Mageia uses exclusively:

- Grub2 (with or without graphical menu) for a Legacy/MBR or Legacy/GPT system

- Grub2-efi for a UEFI system.
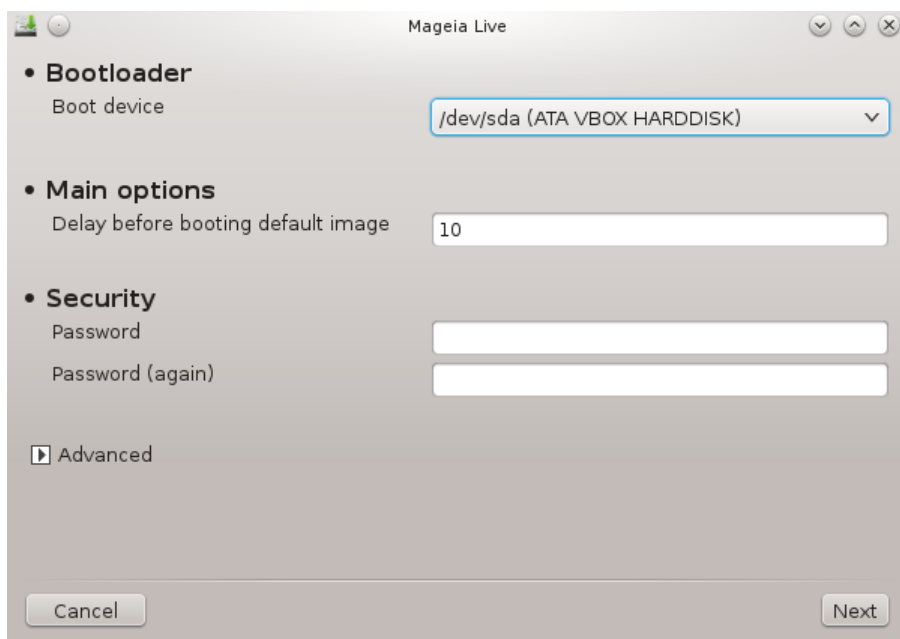
> The Mageia graphical menus are nice :)

15.1.1. Grub2 on Legacy/MBR and Legacy/GPT systems

Don't modify the "Boot Device" unless you really know what you are doing.

15.1.2. Grub2-efi on UEFI systems

With an UEFI system, the user interface is slightly different as you cannot choose between with or without graphical menu

If Mageia is the only system installed on your computer, the installer created an ESP (EFI System Partition) to receive the bootloader (Grub2-efi). If there are already UEFI operating systems installed on your computer (Windows 8 for example), the Mageia installer detects the existing ESP created by Windows and adds grub2-efi. Although it is possible to have several ESPs, only one is advised and enough whatever the number of operating systems you have.

Don't modify the "Boot Device" unless you really know what you are doing.

15.2. Using a Mageia bootloader

By default, according to your system, Mageia writes a new:

- GRUB2 bootloader either into the MBR (Master Boot Record) of your first hard drive or in the BIOS boot partition.
- Grub2-efi bootloader into the ESP

If you already have other operating systems installed, Mageia attempts to add them to your new Mageia boot menu. If you don't want this behaviour, click on Next and then uncheck the box Probe Foreign OS
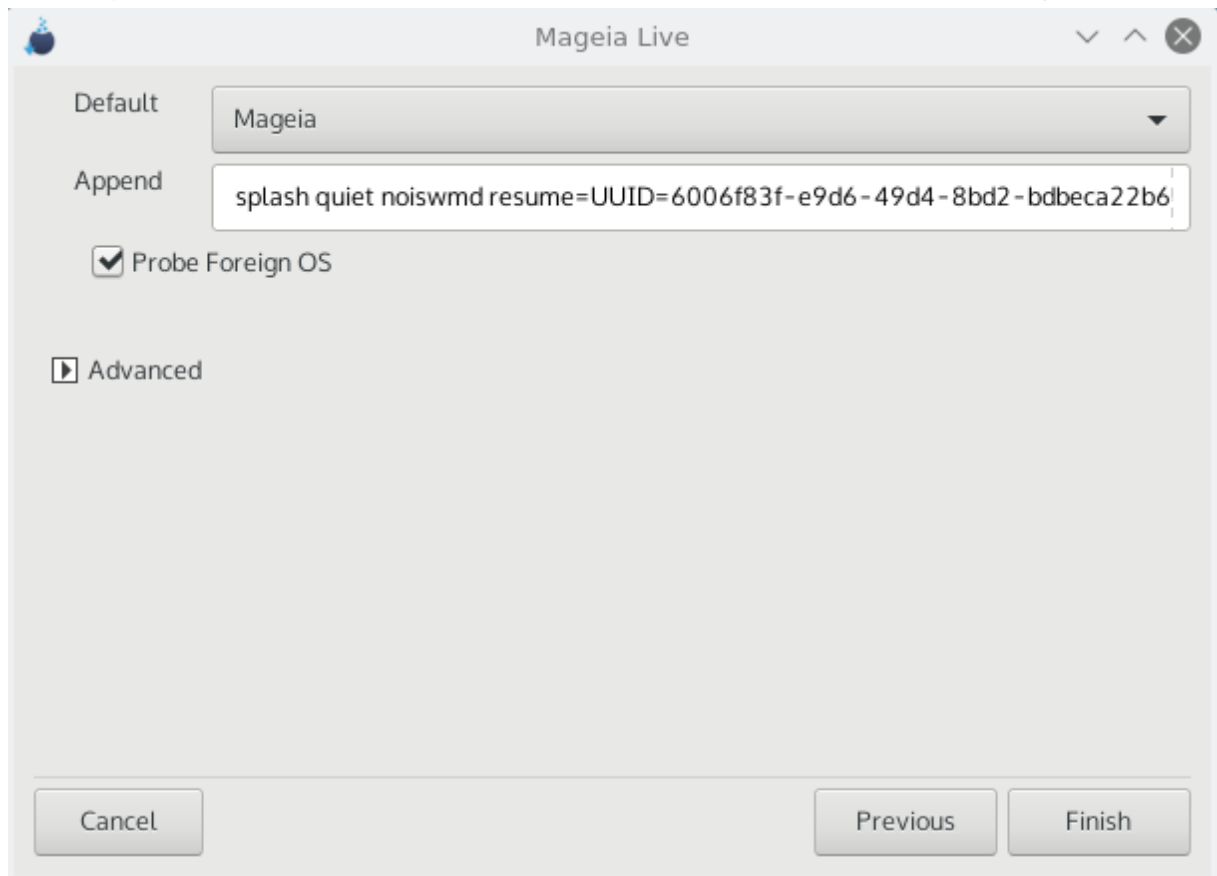

15.3. Using an existing bootloader

The exact procedure for adding your Mageia system to an existing bootloader is beyond the scope of this help, however in most cases it will involve running the relevant bootloader installation program which should detect and add it automatically. See the documentation for the operating system in question.

15.4. Using chain loading

If you don't want a bootable Mageia, but to chain load it from another OS, click on Next, then on Advanced and Check the box Do not touch ESP or MBR.
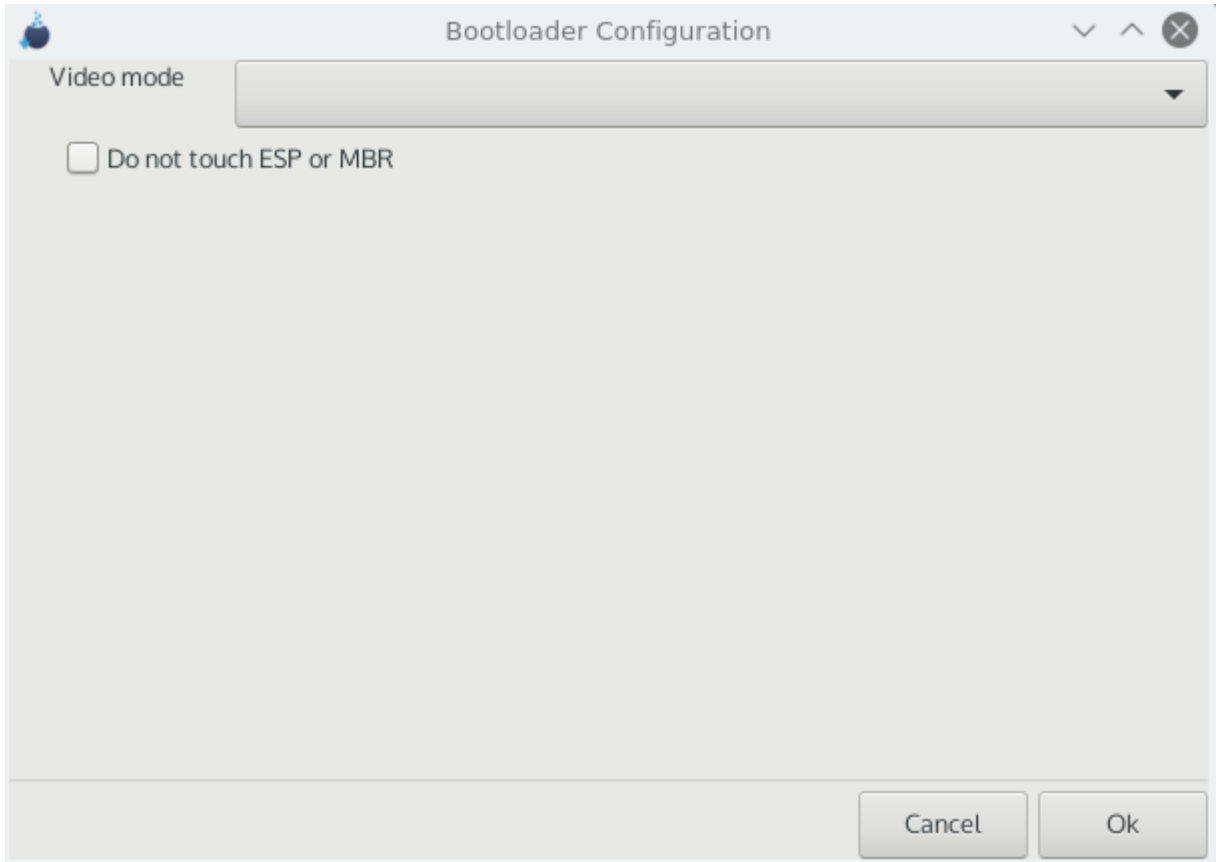
You will get a warning that the bootloader is missing, ignore it by clicking OK.
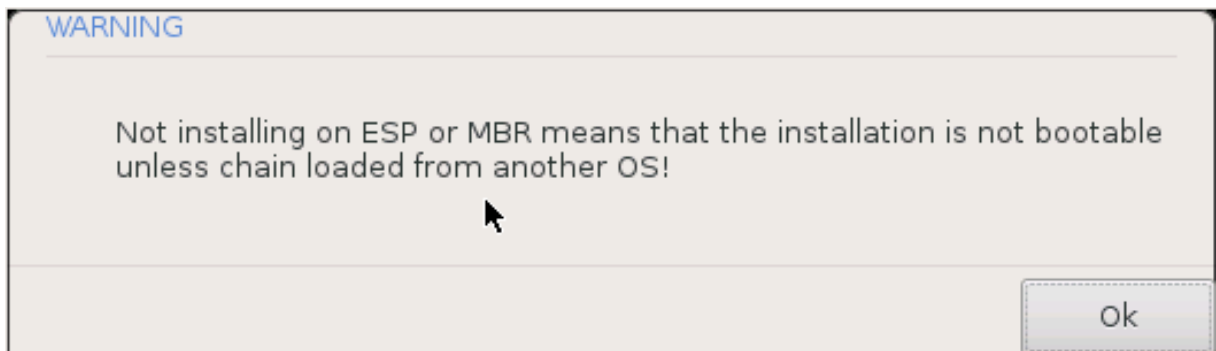
15.5. Options

15.5.1. First page

- Delay before booting the default image: This text box lets you set a delay in seconds before the default operating system is started up.

- Security: This allows you to set a password for the bootloader. This means a username and password will be asked at the boot time to select a booting entry or change settings. The username is "root" and the password is the one chosen here after.

- Password: This text box is where you actually put the password

- Password (again): Retype the password and Drakx will check that it matches with the one set above.

- Advanced

  – Enable ACPI: ACPI (Advanced Configuration and Power Interface) is a standard for the power management. It can save energy by stopping unused devices, this was the method used before APM. Unchecking it could be useful if, for example, your computer does not support ACPI or if you think the ACPI implementation might cause some problems (for instance random reboots or system lockups).

  – Enable SMP: This option enables / disables symmetric multiprocessing for multi core processors.

  – Enable APIC: Enabling or disabling this gives the operating system access to the Advanced Programmable Interrupt Controller. APIC devices permit more complex priority models, and Advanced IRQ (Interrupt Request) management.

  – Enable Local APIC: Here you can set local APIC, which manages all external interrupts for a specific processor in an SMP system.

15.5.2. Next page

- Default: Operating system started up by default

- Append: This option lets you pass the kernel information or tell the kernel to give you more information as it boots.

- Probe foreign OS: see above [Using a Mageia bootloader](#)

- Advanced

  – Video mode: This sets the screen size and colour depth the boot menu will use. If you click the down triangle you will be offered other size and colour depth options.

  – **Do not touch ESP or MBR**: see above [Using the chain loading](#)

16. Add or Modify a Boot Menu Entry

To do that you need to manually edit /boot/grub2/custom.cfg or use the software grub-customizer instead (Available in the Mageia repositories).

> For more information, see our wiki: https://wiki.mageia.org/en/Grub2-efi_and_Mageia
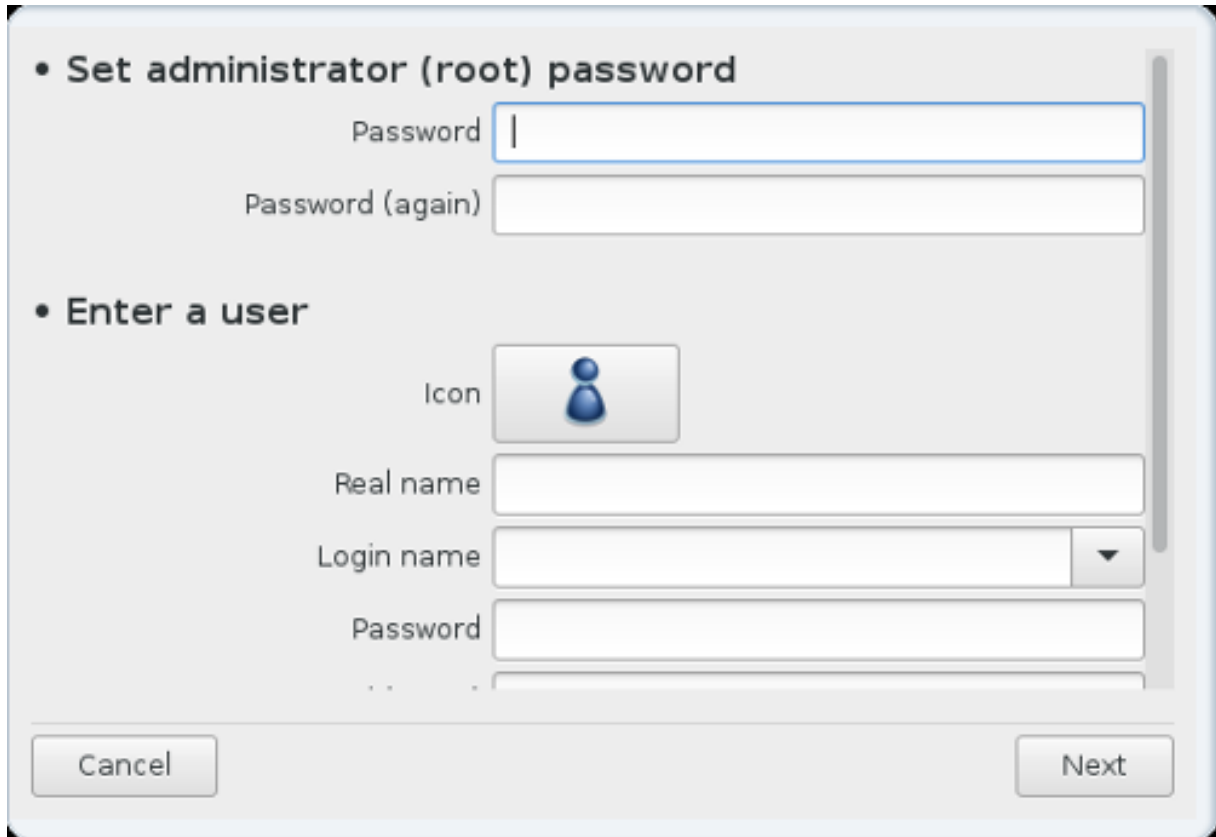
17. Reboot

Once the bootloader has been installed, you will be prompted to halt your computer, remove the live CD and restart the computer, click on **Finish** and act as asked **in this order!**
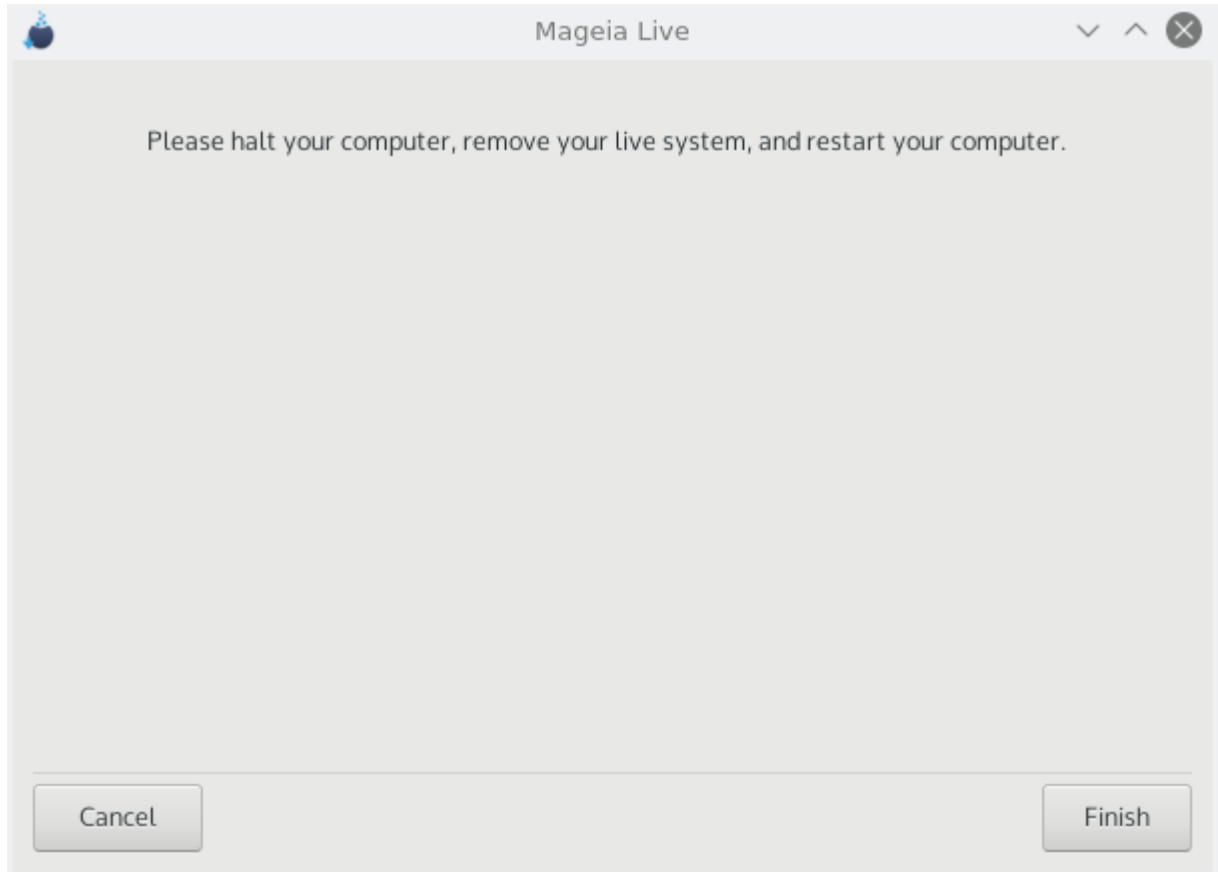
When you restart, you will see a succession of download progress bars. These indicate that the software media lists are being downloaded (see Software management).
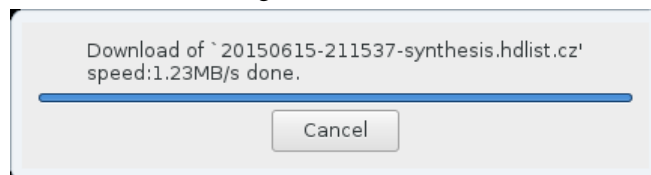
18. User and Superuser Management

18.1. Set Administrator (root) Password:

It is advisable for all Mageia installations to set a superuser or administrator's password, usually called the *root password* in Linux. As you type a password into the top box the colour of its shield will change from red to yellow to green depending on the strength of the password. A green shield shows you are using a strong password. You need to repeat the same password in the box just below the first password box, this checks that you have not mistyped the first password by comparing them.

> All passwords are case sensitive, it is best to use a mixture of letters (upper and lower case), numbers and other characters in a password.

18.2. Enter a user

Add a user here. A user has fewer rights than the superuser (root), but enough to use the internet, office applications or play games and anything else the average user does with his computer

- Icon: if you click on this button it will change the user's icon.

- Real Name: Insert the user's real name into this text box.

- Login Name: Here you enter the user login name or let drakx use a version of the user's real name. *The login name is case sensitive.*

- Password: In this text box you should type in the user password. There is a shield at the end of the text box that indicates the strength of the password. (See also Note)

- Password (again): Retype the user password into this text box and drakx will check you have the same password in each of the user password text boxes.
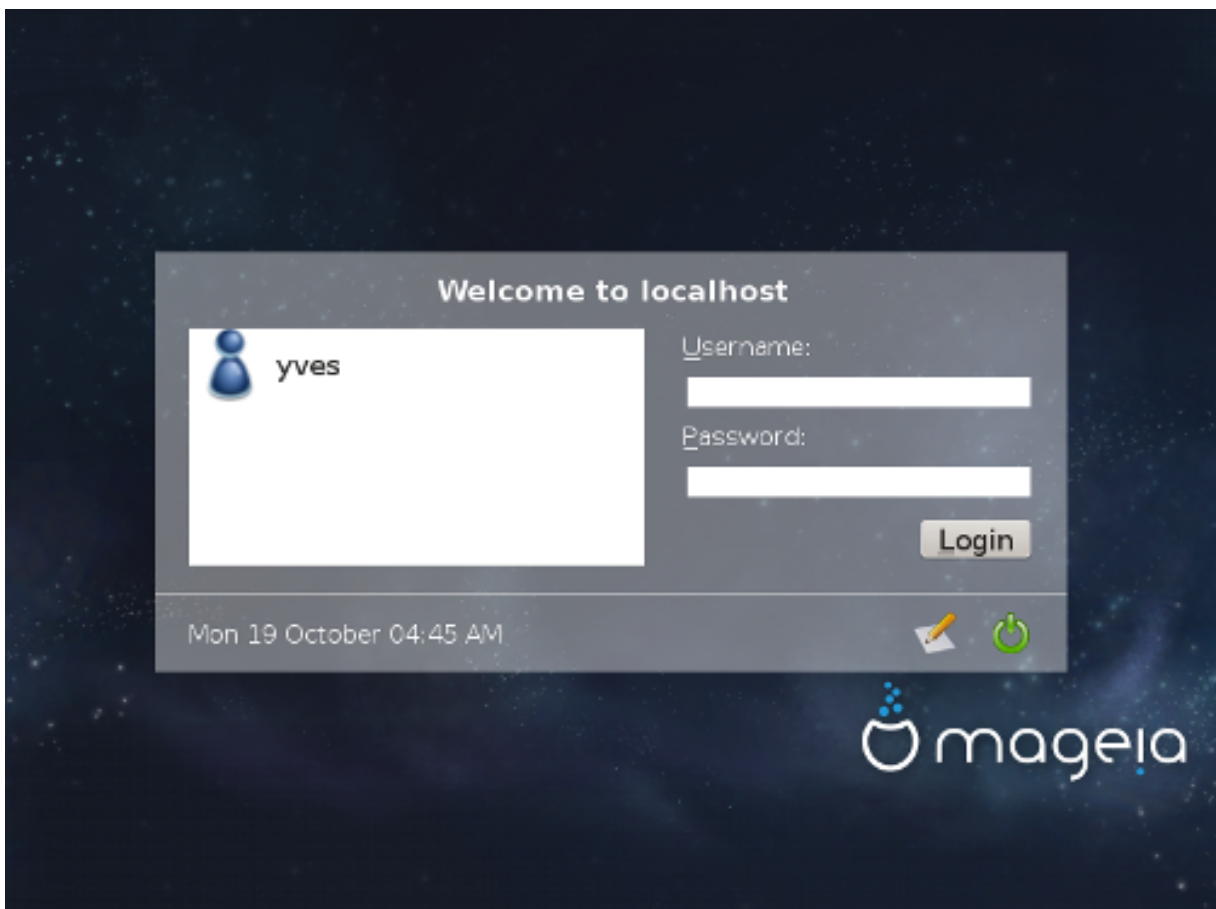

Any user you add while installing Mageia, will have a both read and write protected home directory (umask=0027).

You can add all extra needed users in the *Configuration - Summary* step during the install. Choose *User management*.

The access permissions can also be changed after the install.

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19. Login screen

KDM login screen

Finally, you will come to the login screen.

Enter your user name and user password, and in a few seconds you will find yourself with a loaded KDE or GNOME desktop, depending on which live medium you used. You can now start using your Mageia installation.

You can find another part of our documentation in the Mageia wiki [../../installer/].

20. Uninstalling Mageia

20.1. Howto

If Mageia didn't convince you or you can't install it correctly, in short you want get rid of it. That is your right and Mageia also gives you the possibility to uninstall. This is not true for every operating system.

After your data backup, reboot your installation Mageia DVD and select Rescue system, then, Restore Windows boot loader. At the next boot, you will only have Windows with no option to choose your operating system.

To recover the space used by Mageia partitions on Windows, click on `Start -> Control Panel -> Administrative Tools -> Computer Management -> Storage -> Disk Management` to access to the partition management. You will recognize the Mageia partition because they are labeled Unknown, and also by their size and place in the disk. Right click on each of these partitions and select Delete. The space will be freed.

If you are using Windows XP, you can create a new partition and format it (FAT32 or NTFS). It will get a partition letter.

If you have Vista or 7, you have one more possibility, you can extend the existing partition that is at the left of the freed space. There are other partitioning tools that can be used, such as gparted, available for both windows and linux. As always, when changing partitions, be very careful, and make sure all important things have been backed up.