SAE Dual Boot – Livrable 2

Installation notice

I – In Dual Boot mode

In order to make a dual-boot on your currently Windows-only machine, you'll need:

- ✔ A USB drive of 8GB or bigger
- ✔ A disk image of your installation media (you can download it on the website of your Linux distribution)
- ✔ A USB writer tool (like BalenaEtcher, Unetbootin, or Rufus)
- ✔ At least 10GB of free space on your hard drive, in order to receive your new OS (20GB recommended)

Now that you are ready, It's time to dig into it!

1. Firstly, you'll have to resize your Windows partition in order to reserve the space you've freed to Linux

   - To do so, run the *Disk Management tool*, and reduce the Windows partition of your main disk
   - After the operation, you should see a unallocated space

2. Next, run your USB writer tool, and flash the disk image you've previously downloaded on the USB drive

3. When the flash finishes, reboot your computer on your UEFI/BIOS. You'll probably have to continuously press a specific key during the boot sequence, depending of your machine

4. When you get into the BIOS, disable the secure boot if you are on UEFI, then boot on your USB drive

5. A menu will appear, with "GRUB" displayed at the top of the screen. Select "*Try or Install <Linux distro>*"

6. Once the boot and integrity check sequence has finished, a graphical interface will appear.

   - If a window pops up without any user interaction asking you to try or install the OS, select *Install*
   - If you fall on a desktop environment, just launch the Installation program like any other application. It should be available as an icon on your desktop, or in the applications list.

7. You are now in front of the guided installer. It will help you to handle all the key points of your Linux installation. Just follow the steps as they are suggested. Some points to enlighten are Ubuntu-specific:

   - <u>Other software and updates</u>: Choose what pack of apps you want to have at the end of the installation: only necessary or with additional apps which makes life easier
   - It's recommended to enable "*download updates while installing*" so the installer will do something you will have to do, but this time before you will use your operating system!
   - It's recommended to enable "*Install third-party software [...]*" because most of the codecs you will need and some specific drivers are not open source (yet), and then not installed without this option checked. But don't worry! You will be able to enable this option later, after the installation!

8. When you are in front of the *Installation type* page (known as the *Partition* page on Calamares), what you have to do will depend of what Installer you have:

   - If you are on Ubiquity, you'll have an option "*Install Ubuntu alongside Windows Boot Manager*". Just select it and you are ready to start the installation!
   - If you are on Calamares, select the option "*Replace a partition*", then click on the greyed area of your disk structure shown at the bottom of the window. It should reflect the space you have allocated on the first step. Then you can start the installation!

9. Once the installation finishes, you will be prompted to restart your computer.

Congratulations! Your OS has been successfully installed! You'll be prompted to choose which one to boot at each startup.

II – The virtual machine

In order to create a virtual machine running under Linux, here are the steps to follow:

✔ *Before we start, make sure you have enabled the Virtualization feature of your processor. This can be seen on the Windows task manager, and configured in the BIOS menu.*

1. First you will need to install a virtual machine software like VirtualBox.

2. For this, you will have to go to the VirtualBox website and install the setup installer according to your operating system, and the extension program (available below the installer links)

3. Install the VirtualBox software with the setup installer provided, like any other program

4. Next, you will need to go to website of your favourite Linux distribution, then download the disk image of the installation media

5. Once the disk image has been downloaded, in VirtualBox, click *New*, then indicate the name you want to give to the virtual machine.

6. After that, select the amount of memory (RAM) you want to allocate to the virtual machine

   ○ 💡 Tip: It's recommended to allocate at least 2048MB of RAM memory

7. On the next window**,** select "*Create a Virtual hard disk now*", then "*VDI (VirtualBox Disk Image)*" and finally select "*Dynamically allocated*"

8. Select at least an amount of 10GB for the size of the virtual disk (this is the maximum amount of data the virtual machine will be able to store) (15GB recommended). Confirm.

9. Once your virtual machine is created, select it on the list, go to *Settings*, then to *Storage* and select the CD entry named "*Empty*". Right-click on the blue disk of the attributes section (on the right of the windows), go to "*Choose a disk file...*" then select your disk image you've previously downloaded.

Your virtual machine has been successfully configured

10. You can finally start your newly-created virtual machine, then on the GRUB menu, select "*Try or Install Ubuntu*".

11. Once the boot and integrity check sequence finishes, a graphical interface will appear.

    ○ If a window pops up without any user interaction asking you to try or install the OS, select *Install*

    ○ If you fall on a desktop environment, just launch the Installation program like any other application. It should be available as an icon on your desktop, or in the applications list.

12. You are now in front of the guided installer. It will help you to handle all the key points of your Linux installation. Just follow the steps as they are suggested. Some points to enlighten are Ubuntu-specific:

    ○ <u>Other software and updates</u>: Choose what pack of apps you want to have at the end of the installation: only necessary or with additional apps which makes life easier

    ○ It's recommended to enable "*download updates while installing*" so the installer will do something you will have to do, but this time before you will use your operating system!

    ○ It's recommended to enable "*Install third-party software [...]*" because most of the codecs you will need and some specific drivers are not open source (yet), and then not installed without this option checked. But don't worry! You will be able to enable this option later, after the installation!

13. When you are in front of the *Installation type* page (known as the *Partition* page on Calamares), select "*Erase disk and install <Linux distro>*". Confirm the disk modifications. The installation starts!

14. Once the installation finishes, you will be prompted to restart your computer.

Congratulations! Your OS has been successfully installed on your virtual machine!