Clone a New Workstation from an old one

Step 1 (DELL) : Antivirus scan

Before cloning the old PC, it is best to run an antivirus scan with Eset Online Scanner, ADWCleaner, and Bitdefender to avoid cloning viruses onto a new machine.

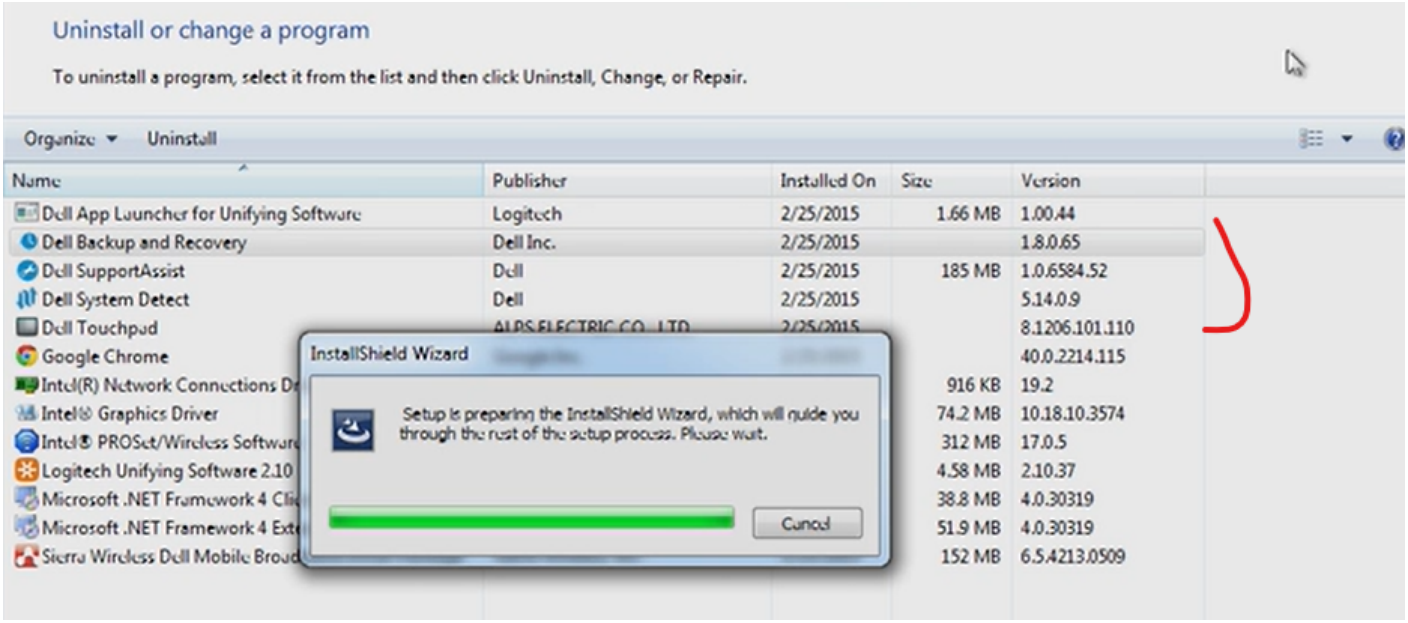
- ESET Online Scanner
- ADWCleaner

Step 2 (DELL) : Uninstall unnecessary software

Before cloning, it is best to uninstall any software from the machine, such as Dell Software, Dell Support Assist, Dell PowerManager, etc.

To do this, go to the control panel >> uninstall a program and filter by Dell.

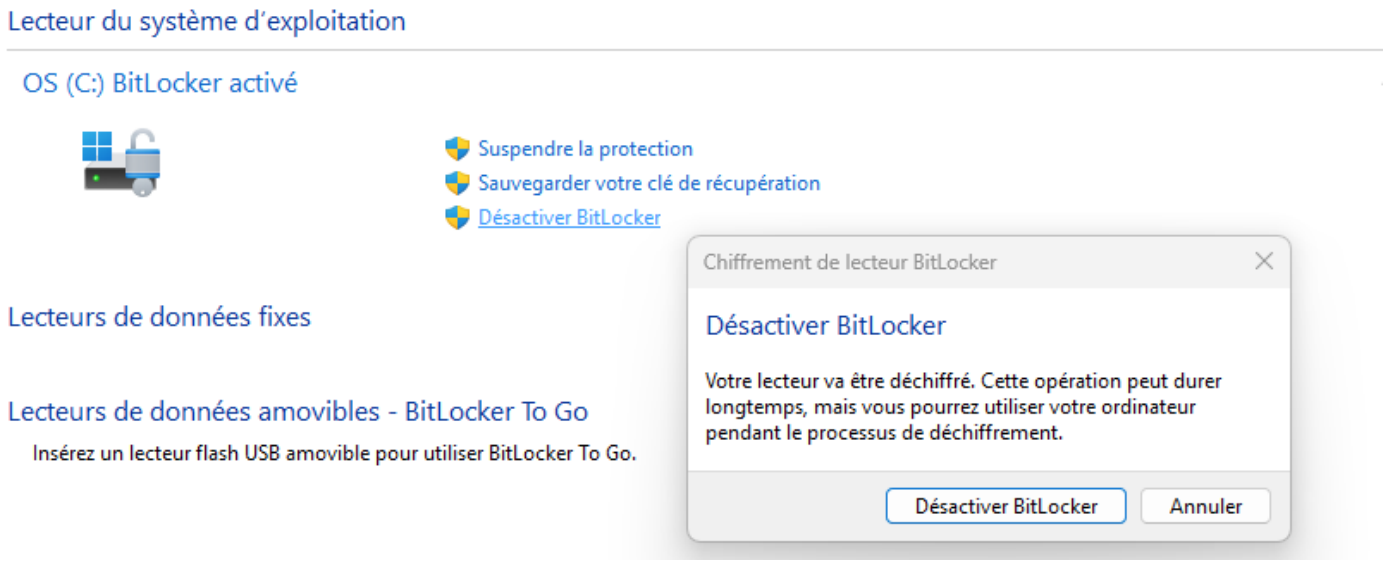
Next, check in Settings >> Applications to see if there are any DELL UWP applications not listed in the control panel.



Step 3 (both) : Disable Bitlocker

Before cloning a machine, it is best to disable BitLocker so that Clonezilla can fully access the machine's hard drive.

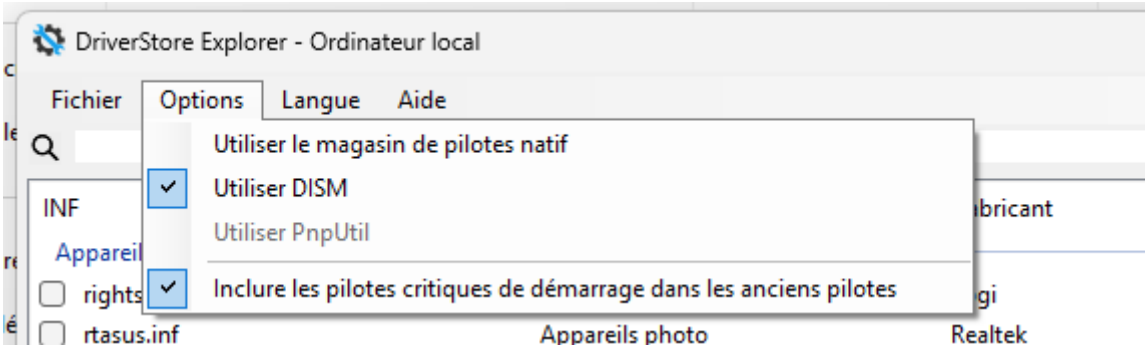
Don't forget to disable BitLocker on the second hard drive D: and check whether the user has any data to back up. If so, you should place it on C: if possible.

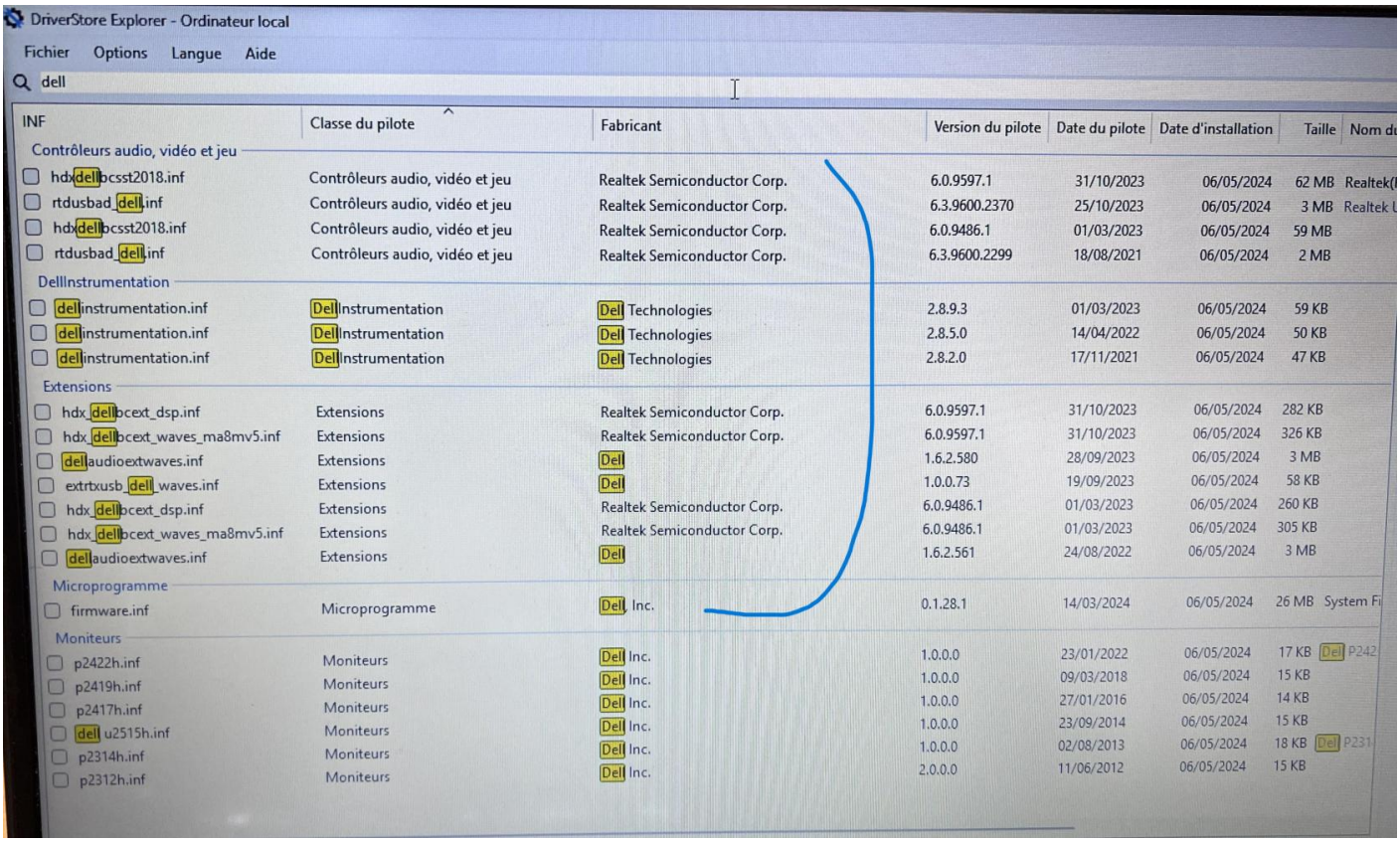


Step 4 (DELL) : Uninstall previous Dell Drivers with DISM

To avoid startup problems or duplicate drivers, you must **uninstall the Dell drivers**.

Except for the monitor drivers.

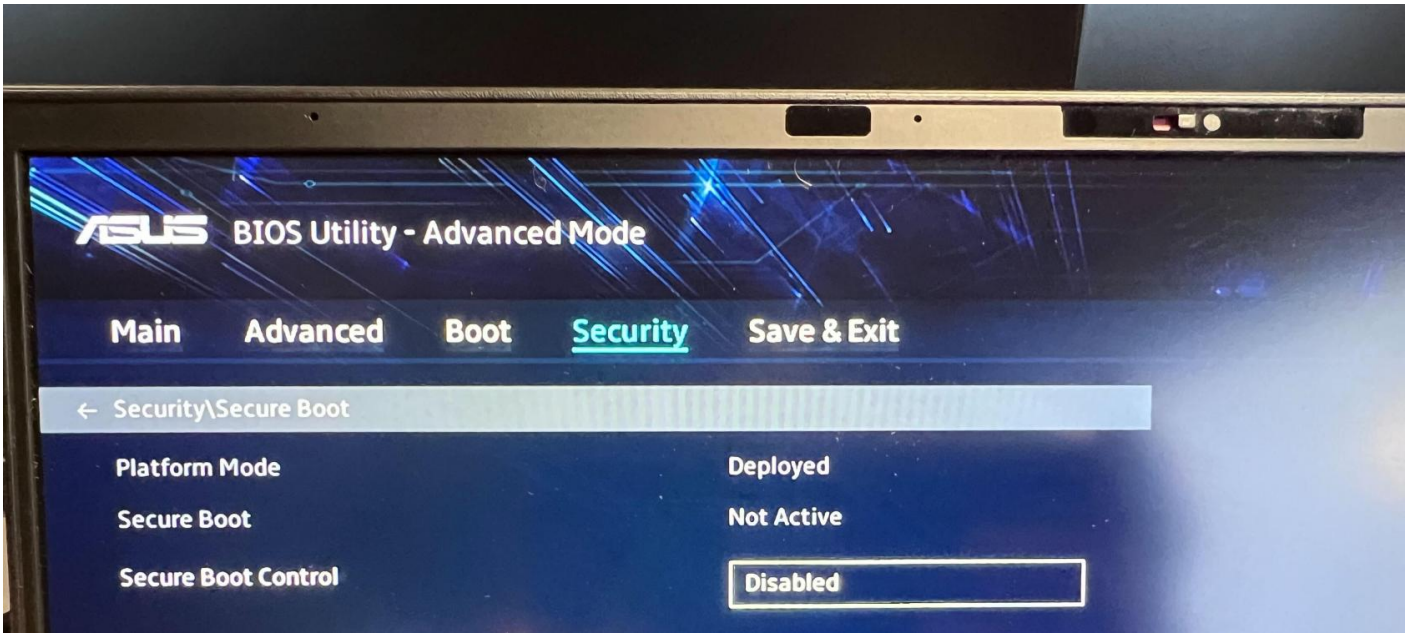


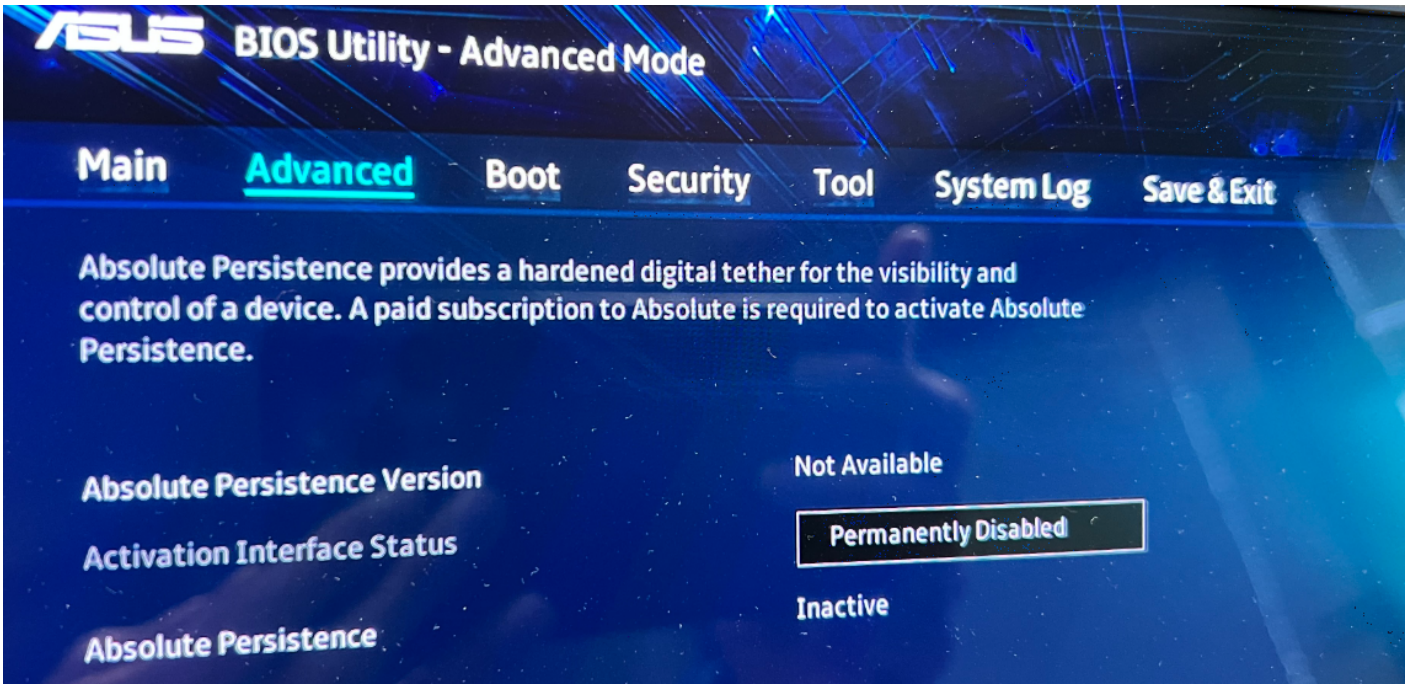


Step 5 (both) : Disable Secureboot

It is best to temporarily disable secureboot in order to boot into clonezilla, as it does not contain a secureboot key by default.

Remove the old secure boot keys if you can...

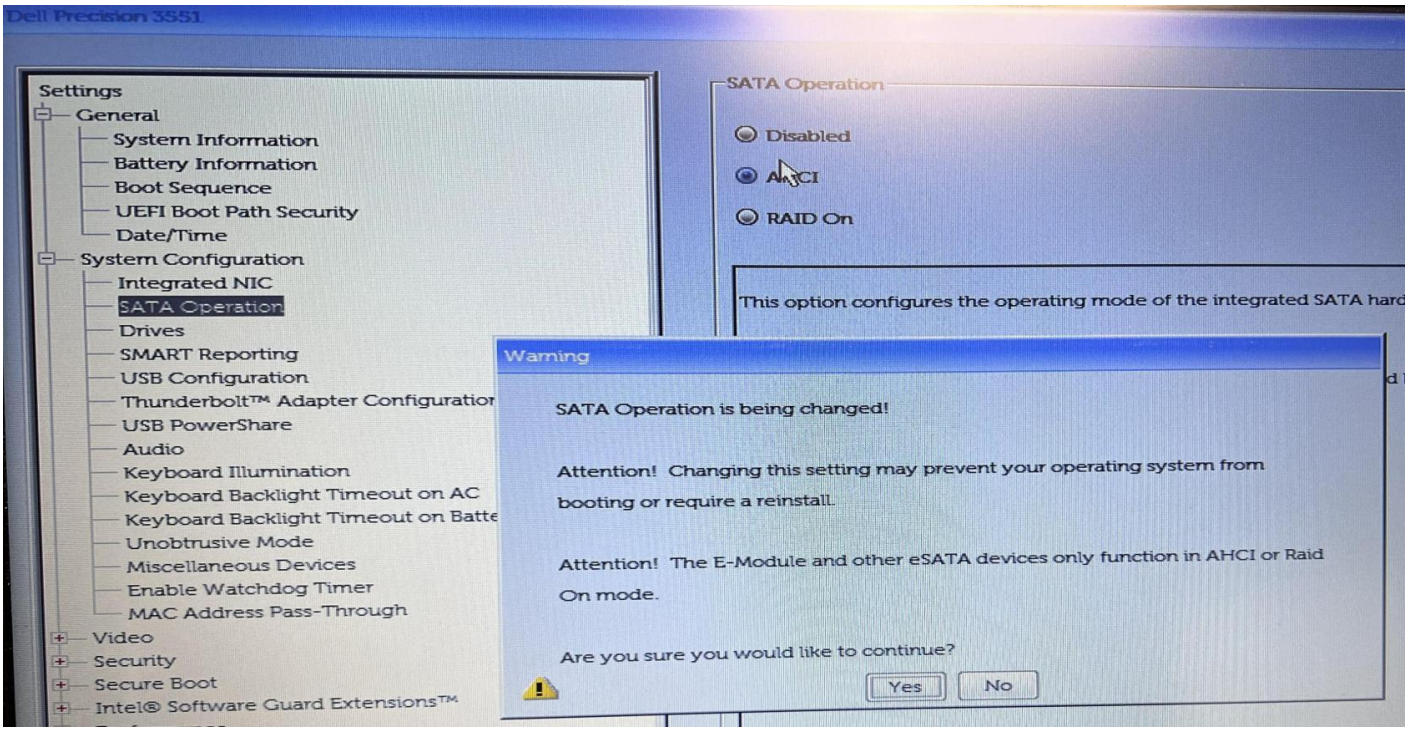




On the new Asus 2025, you also need to disable the advance persistence module to be able to boot into Clonezilla.

Step 6 (DELL) : Disable the RAID to boot into Clonezilla

Please note that by default, if you restart, the Dell will render the **inaccessible boot device**, and you only need to switch back to **RAID mode** if you want to power on the Dell machine again. However, for cloning, we need to be in **AHCI mode** so that Clonezilla can see the disk.

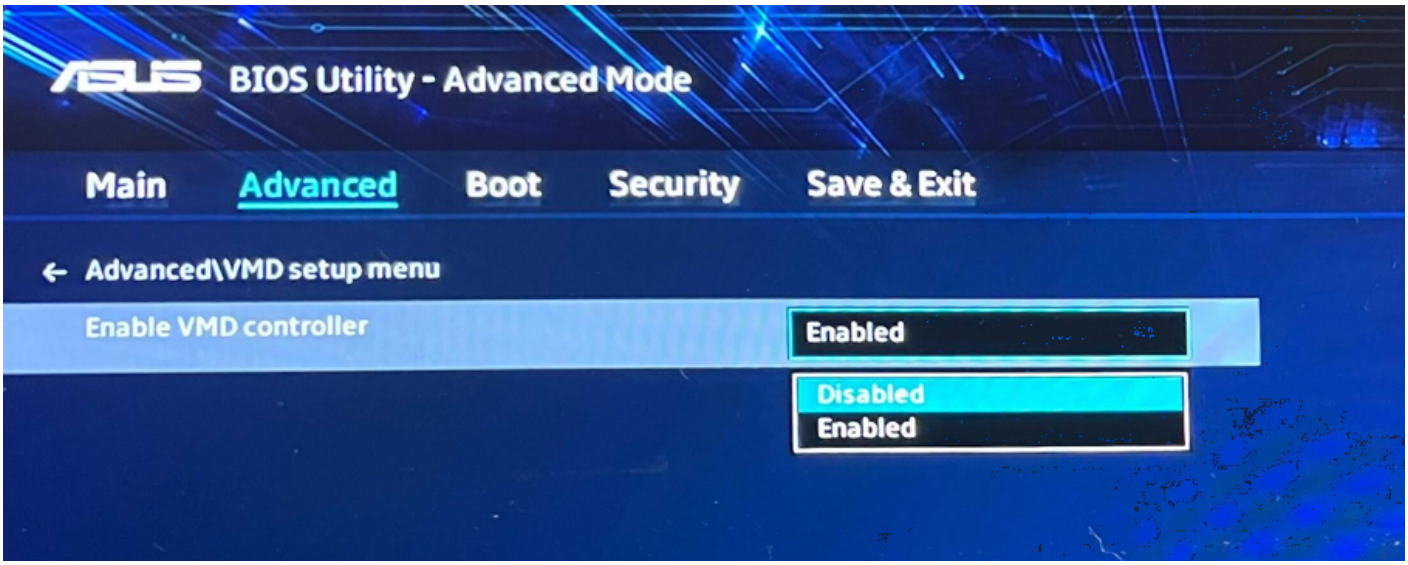


Step 7 (ASUS) : Disable the VMD

The **VMD controller** manages **NVMe SSDs** and enables **RAID functionality**; it should be disabled if RAID is not desired to simplify system management and improve compatibility with standard drivers.

In the case of cloning a machine, the **VMD controller** should be **disabled** to **avoid driver conflicts** and ensure the cloned system can boot properly without needing special RAID drivers.

This option is only available on the Asus 2022, you normally don't need it on the Asus 2025.



Step 8 (both) : Choose a method for cloning

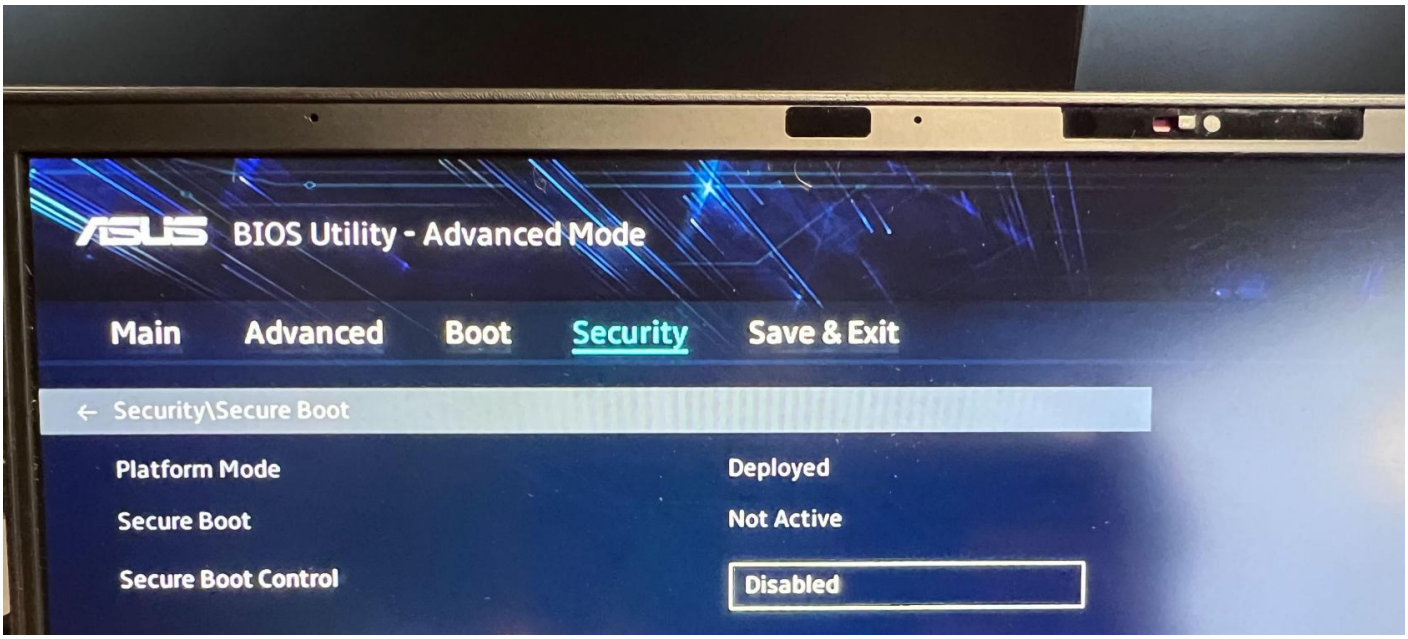
I highly recommend using **Clonezilla**, as it is the **safest and fastest method.**

Alternatively, you can use systemrescuecd if the Clonezilla method does not work. But keep in mind that the systemrescuecd method requires more patience because it takes longer, copying block by block rather than just the used space.

- Clonezilla
- SystemrescueCD

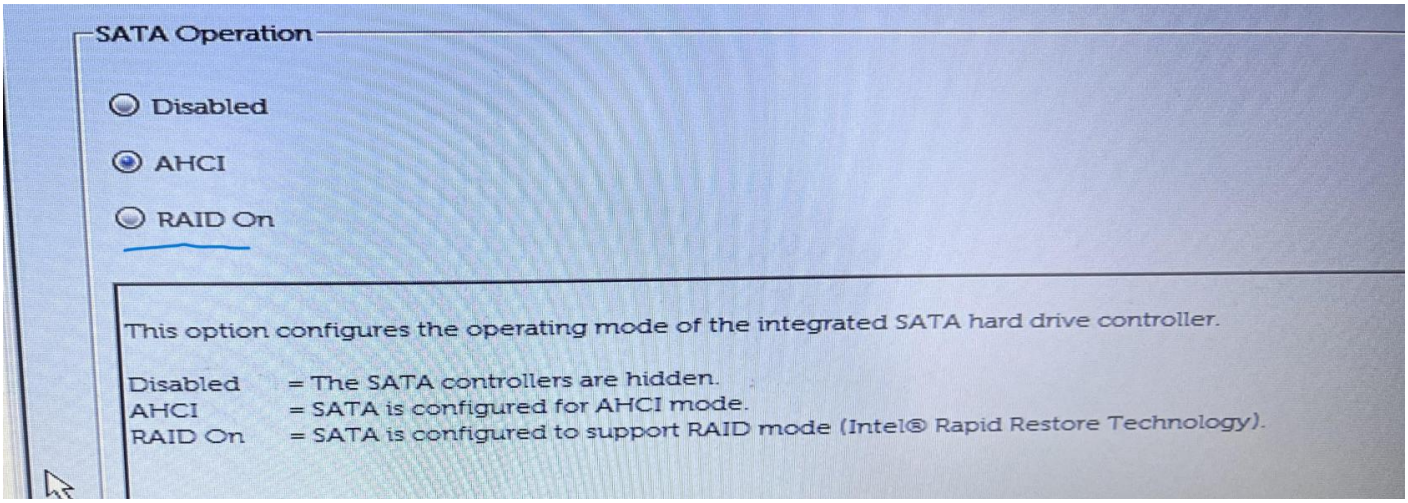
Step 9 (both) : Enable Secureboot

After using **Clonezilla**, we no longer need to leave **Secure Boot disabled**; we must **enable** it to ensure that **BitLocker will work** afterwards.



Step 10 (DELL) : Enable RAID

To restart Windows correctly on the Dell, you must **enable RAID mode**.



Step 11 (ASUS) : Check Windows Health

Check the partition table : **(recommended)**

```
chkdsk C: /f /r
```

Check if any file has corrupted : **(recommended)**

```
sfc /verifyonly
```

if your system has corrupted run : **(if required)**

```
sfc /scannow
```

reboot neccessary

Check DISM health : **(recommended)**

```
Dism /Online /Cleanup-Image /CheckHealt
```

```
Dism /Online /Cleanup-Image /ScanHealth
```

if your system has corrupted run : **(if required)**

```
DISM /Online /Cleanup-Image /RestoreHea
```

reboot neccessary

Usually after an upgrade you need to run : **(if required)**

```
Dism /Online /Cleanup-Image /StartCompo
```

reboot neccessary

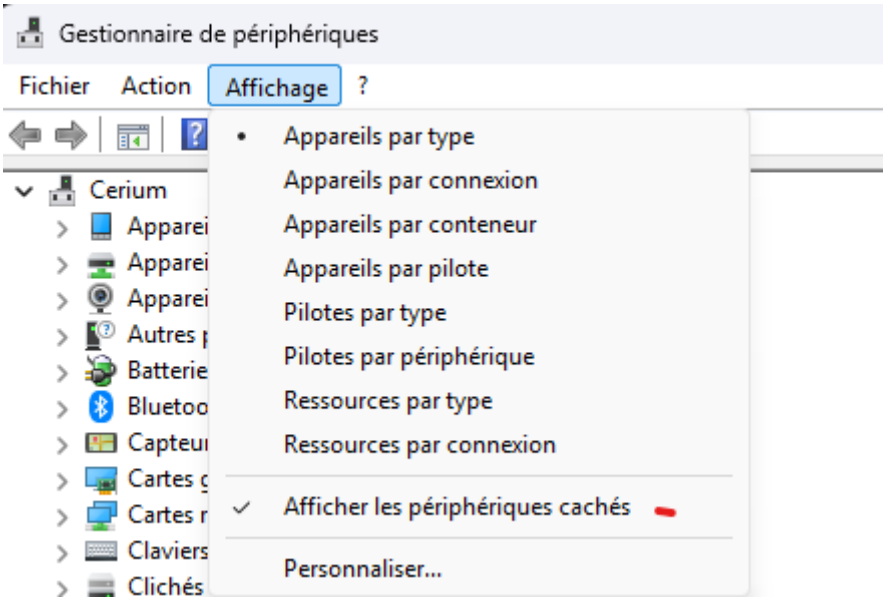
Step 12 (ASUS) : Uninstall previous Dell Drivers with device manager

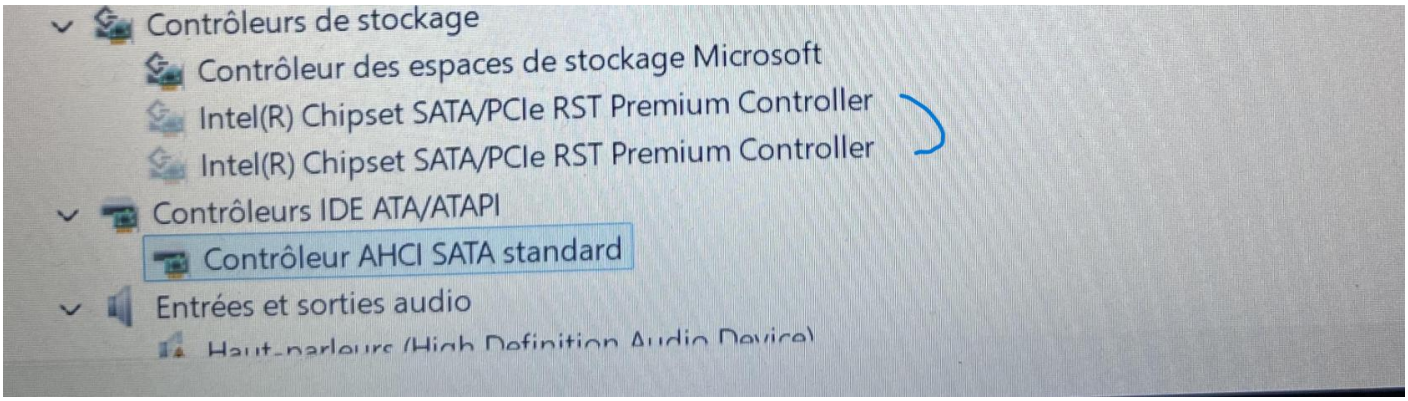
You need to remove drivers from the old laptop on device manager,

like ACPI, Graphics card, sound card,network card (not fortigate), storage controller, old hard drive…

The old drivers will be grayed out because they are not currently in use on the new machine, so you can delete them.

Do not uninstall a driver that is not grayed out and currently in use !



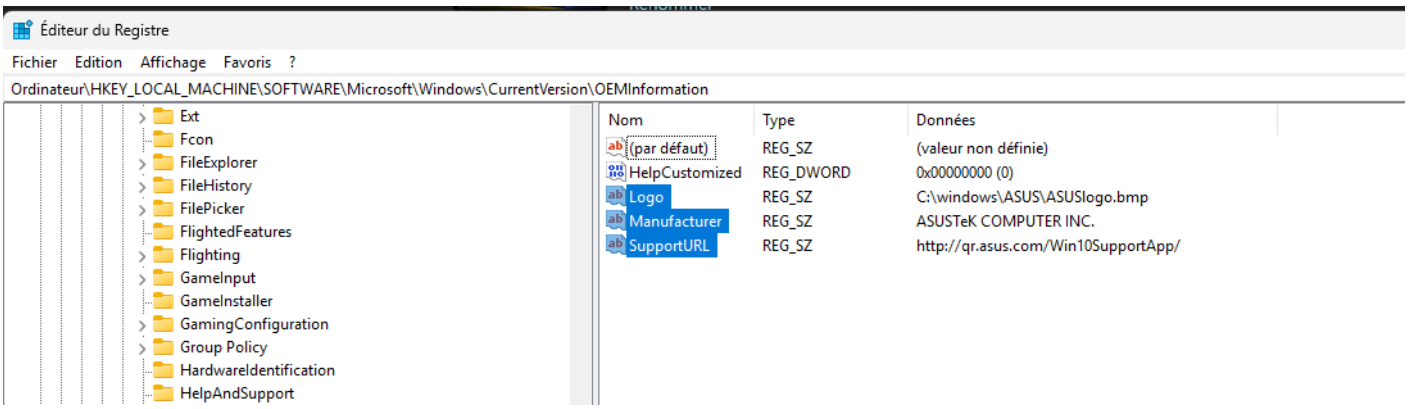


For Bluetooth devices, it is best to uninstall them and then reinstall them afterwards. This is because the old pairing corresponds to the old card.

To do this, first uninstall your old Bluetooth device in Device Manager, then go to Settings and delete the Bluetooth devices. You can then pair them again once the drivers have been reinstalled.

Step 13 (ASUS) : Remove previous HardwareID (Regedit)

```
Ordinateur\HKEY_LOCAL_MACHINE\SOFTWARE\
```



You need to remove these 3 registry keys to change the machine name; obviously, in your case, it will say Dell something...

After a restart, your machine will have retrieved the SMBIOS HWID.

Step 14 (ASUS) : Stop wuauserv and remove Software Distribution

To avoid installing the drivers and BIOS from your old machine on the new one, you need to delete the contents of the Windows Update folder.

To do this:
Go to services.msc >> Windows Update, set the service to **manual**, and **stop** the service.

Go to C:\Windows\ >> delete the contents of the **Software Distribution** folder >> When the Windows Update service restarts, it will recreate the folder.

Step 15 (ASUS) : Install New drivers and My asus software

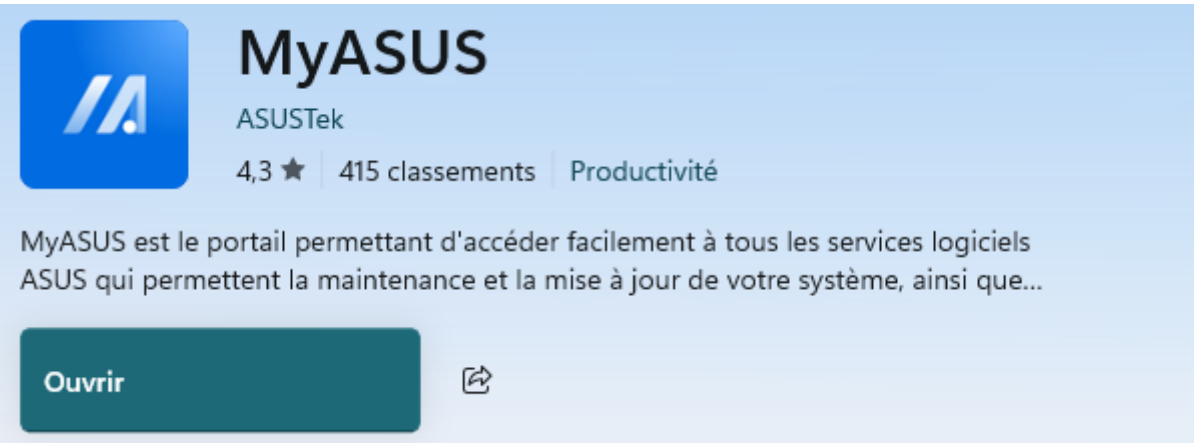
copy **[Asus Experbook B9400CEA (2022) Drivers Auto-Install]** to the new laptop.

Unfortunately for the **Asus 2025**, the Asus auto-installer is not compatible with the machine, so you must either install the drivers manually or use Windows Update.

Launch the **installation** on the laptop.

After that reboot the computer and start **Windows Update**.

Don't forget to install **MyAsus** via the **Microsoft Store** to monitor **fan performance** and **charging**.



Step 16 (ASUS) : Rename the new machine after a restart

To do this, you need to connect to the VPN and temporarily remove the machine from Active Directory and change the name.

After a reboot, you can get back on the ad.

Step 17 (ASUS) (Optional) : Remove old Windows Activation Key

If you have activation problems, you can reset the Windows license.

This is done using the **hardware ID**.

To do this, run the following command :

```
slmgr /upk
```

Next, go to **Settings > System > Activation** and run troubleshooting if Windows has not activated you automatically; it should search for the license based on your new machine and activate it automatically.

Check the activation with :

```
slmgr /dlv
```

If you encounter a product key error, don't panic!

Open Powershell 5.1 has administrator :

```
(Get-CimInstance -ClassName SoftwareLic
```

After finding your key, please enter this command with the key.

```
slmgr /ipk XXXXX-XXXXX-XXXXX-XXXXX-XXX
```

Force activation :

```
slmgr /ato
```

Check activation Status :

```
slmgr /dlv
```

This does not disable Office; Office may be disabled because the machine has changed its hardware ID, not because of this command!

Step 18 (ASUS) : Move the new machine on bitdefender

After the machine name change, it should be automatically added to Bitdefender with its new name; you must place it in the correct folder of the service to which this machine belongs.

Step 19 (ASUS) : Reinstall the GLPI agent

After that, you need to run an inventory to make sure the machine is correctly listed in GLPI.

To do this, launch your internet browser and go to http://localhost:62354/

Step 20 (ASUS) : Update Microsoft Secure Boot Certificate

You absolutely must update the certificates on your machine before **June 2026** using this procedure :

https://doc-trevette.duckdns.org/books/portfolio-documentation/page/microsoft-secure-boot-certificate-update

Step 21 (ASUS) : Enable Bitlocker on the new machine

1. Activate Bitlocker

Open the Start menu, type in BitLocker
Click on Manage BitLocker in the search results
Under Operating System Drive, click on Enable BitLocker. If you have multiple disks, you'll have to repeat all the steps.

(The following error may appear: This device cannot use a secure platform module (TPM). Your administrator must set the option "Allow BitLocker without a compatible secure platform module"…)

-open the Start menu

-type Group Policy

-in the search results, click Edit Group Policy

-in the tree on the left of the window that opens, go to: Computer Configuration > Administrative Templates > Windows Components > BitLocker Drive Encryption > Operating System Drives

-in the list of settings that now appears on the right, look for the line Require additional authentication at startup and double-click it

-then check the Enabled box, making sure that the Allow BitLocker without a compatible secure platform module box is checked

-click on OK

2. Choose the unlocking method

Choose the last option: Let BitLocker automatically unlock my disk ? no password will be required at each start of the computer

3. Select the saving method for the recovery key

Save it in a file on an external key or print it temporarily, as we will save it in the password vault later

It’s not recommended to save it on a Windows account

Choose between encrypting the disk space or the entire disk

Choose the encryption mode

Opt for Compatible mode

After restarting the computer, BitLocker should be enabled. You can verify either on the File Explorer with a small lock icon on your disk or in the settings System > Storage > Disks & volumes

Step 22 (ASUS) (Optional) : Check office Licence activation

After cloning, you may need to activate Office, as the license is assigned by hardware ID.

Step 23 (both) (Optional) : Troubleshooting in case of problems

If you follow this tutorial carefully, you should not encounter any problems, but if your hardware is new or unusual, you may need to adapt it.

If you are stuck on “**inaccessible boot device**” but Windows manages to start in WinRE (you can also use a Windows installation USB key to access it)

The problem is usually with the **VMD controller**; Windows does not have the driver to start it. Normally, you should disable it before cloning to avoid this problem, but to troubleshoot it, you need to launch a **command prompt.**



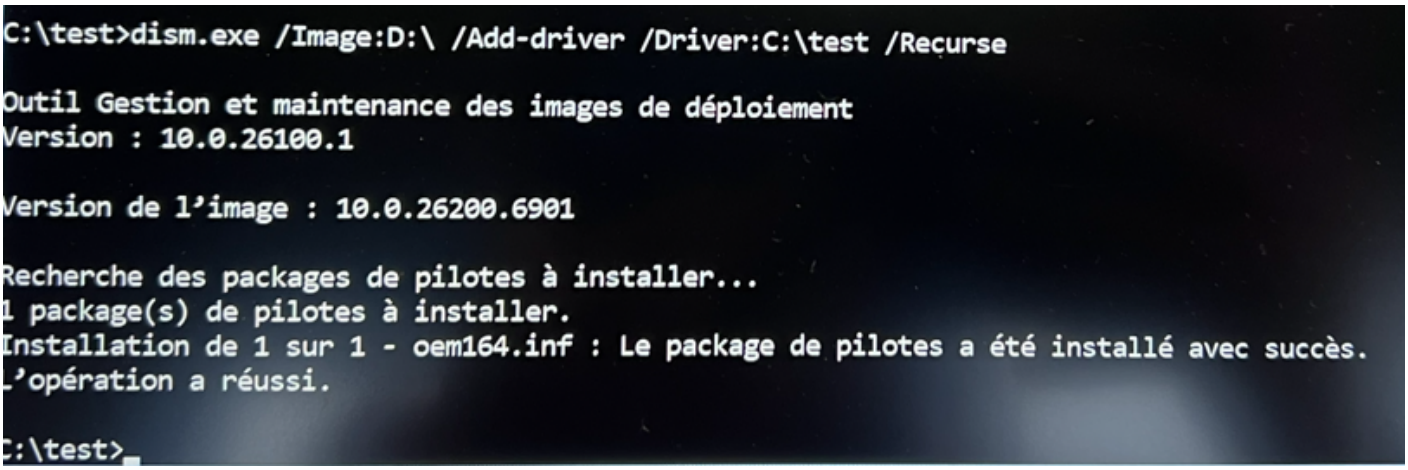
Check if you can see the **NVMe disk** in **DiskPart**.

Find the **VMD driver** for your machine.

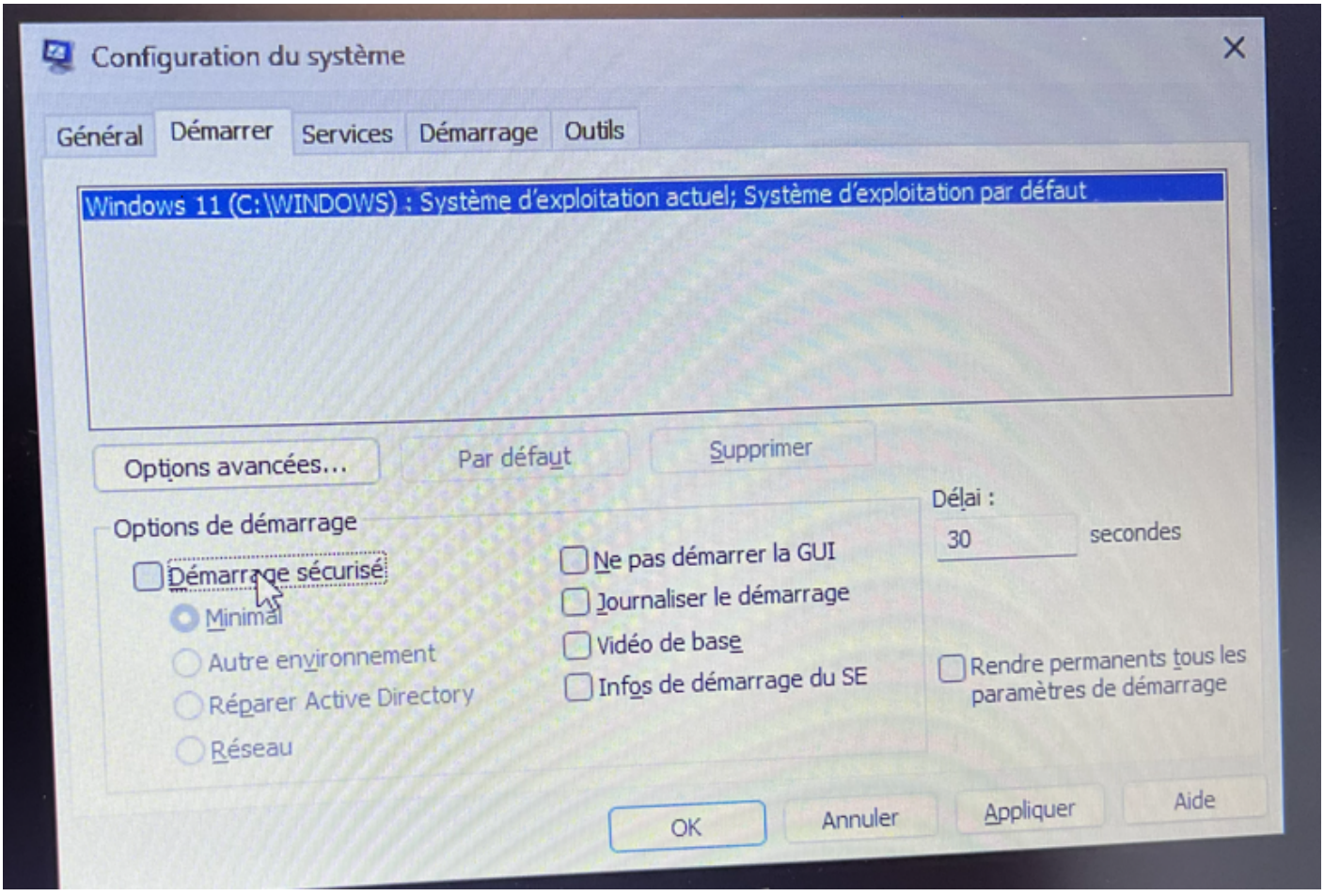
If not, install the driver. E: is, for example, your USB drive.

```
drvload E:\drivers
```

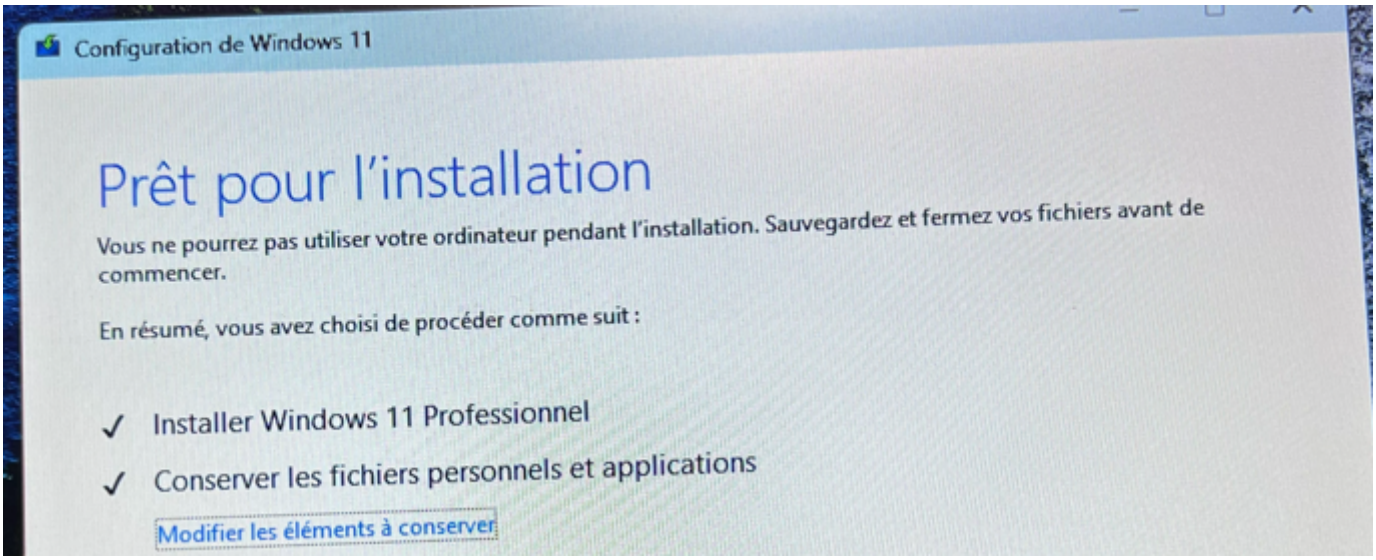
Once the disk has been detected, you can inject the **VMD driver** into Windows using the **DISM** command.



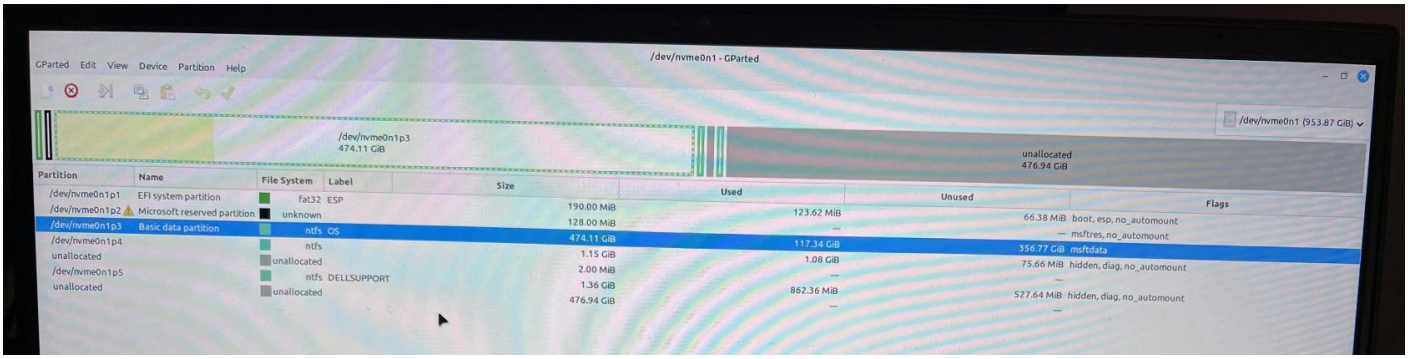
If you want to convert a Windows installation from RAID to AHCI because you are getting the error message "**inaccessible boot device**" you need to press Windows + R and type msconfig, check the "Minimal safe boot" option, and restart. Then you need to go into the BIOS, enable AHCI, and the system will automatically start with the AHCI drivers in safe mode. Wait a few minutes, then you can clone the machine while keeping AHCI mode enabled.



If you have problems integrating the drivers for the **new machine**, you can **force Windows** to search for and install the drivers by starting **a fake Windows upgrade**, downloading a Windows ISO, and running the setup. Once the setup has been launched **with the settings to preserve data enabled**, wait, and **then clone with Clonezilla just before the first Windows restart.** That way, Windows will be able to **integrate the drivers for the new machine.**



If you encounter problems resizing partitions, you can start **systemrescuecd** or **LMDE** with **gparted**, and resize the partition from Linux.



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