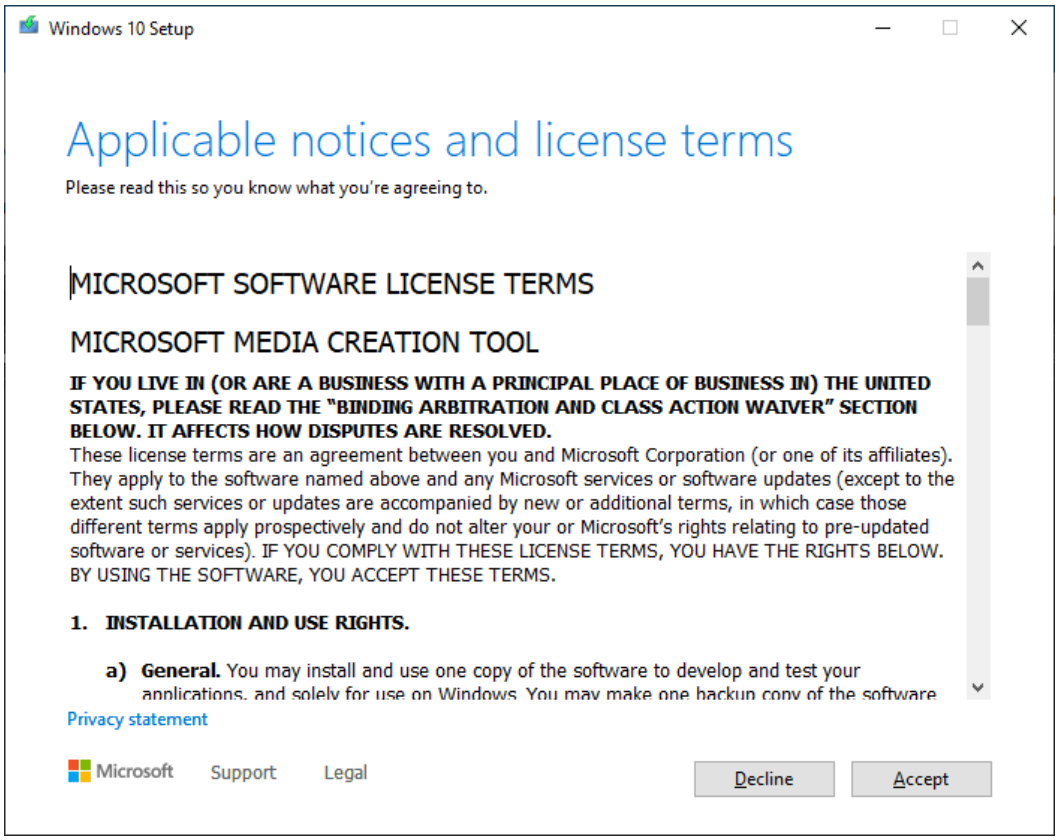
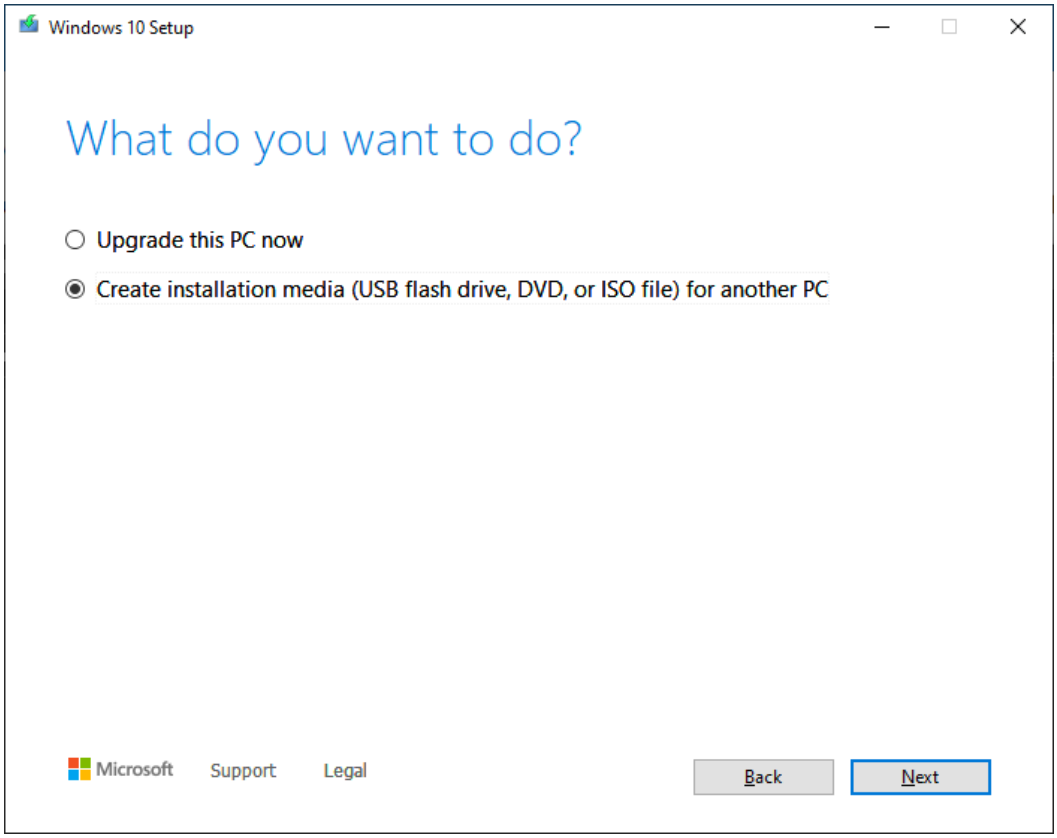
DISCLAIMER: This is by no means the best way to do it, just one I like. There are several other ways to go about solving problems without resorting to clean installing (like the Alt+F10 procedure Acer system ship with), but if you are willing to reinstall everything, or it just tickles your fancy; carry on.

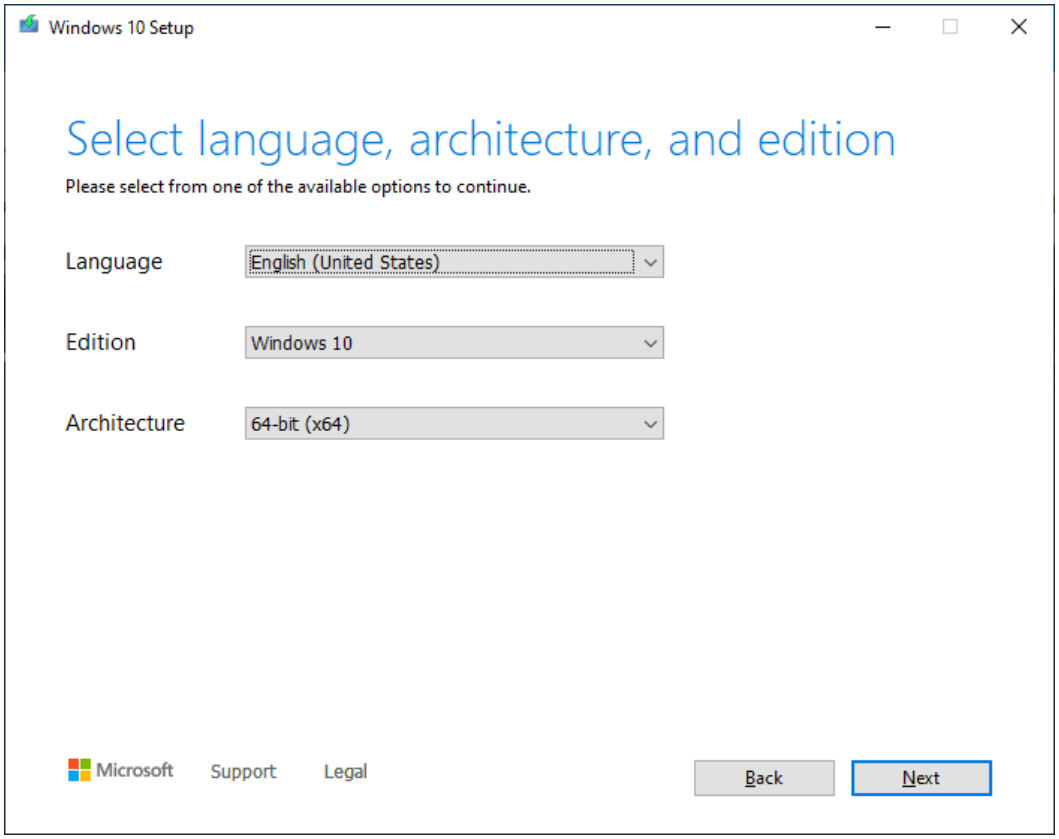
1. First things first, things we'll need for the procedure:
   - An 8 GB+ USB stick, that's where the installation files and drivers will reside.
   - A Windows 10 image or installation media. For the purpose of this guide I'm going to be using the official Media Creation Tool to download and copy the required files to the USB stick.
   - Double Driver, it's a little utility to handle drivers. We'll be using it to make a backup of the ones the system has already, if one can access the system that is.
2. Acquiring the media:

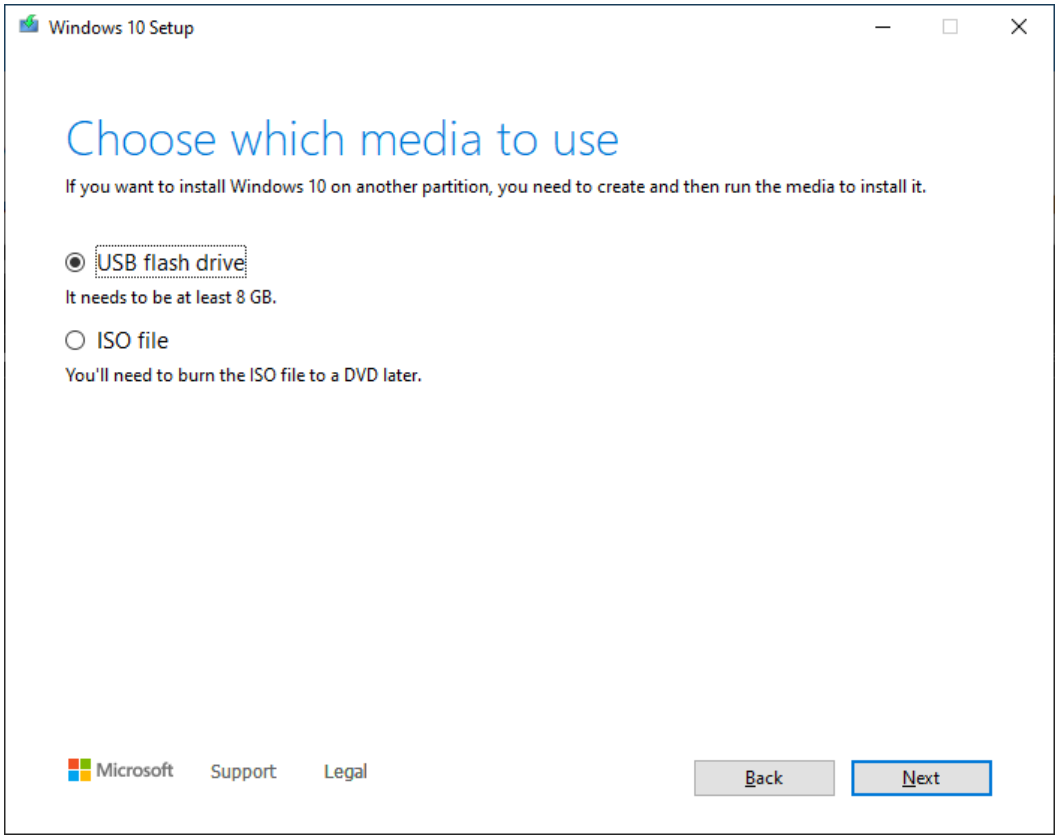
   Download and run the tool and proceed through its wizard style dialogs to create the bootable media. Have the USB flash drive inserted into the machine so it will be populated with the files. Alternatively, download an ISO image and use something like Rufus to create a bootable USB stick later on 😉.

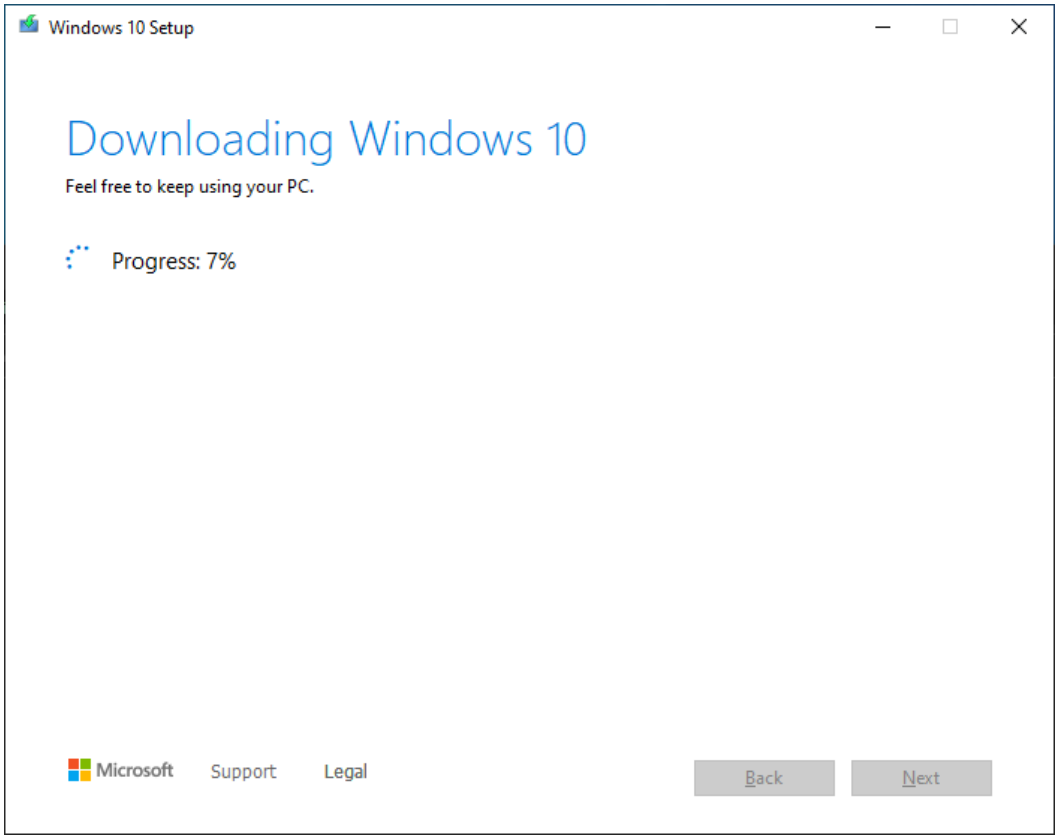
   The architecture you're looking for when asked in one of the steps will likely be 64-bit, although when in doubt you can choose to build for both.

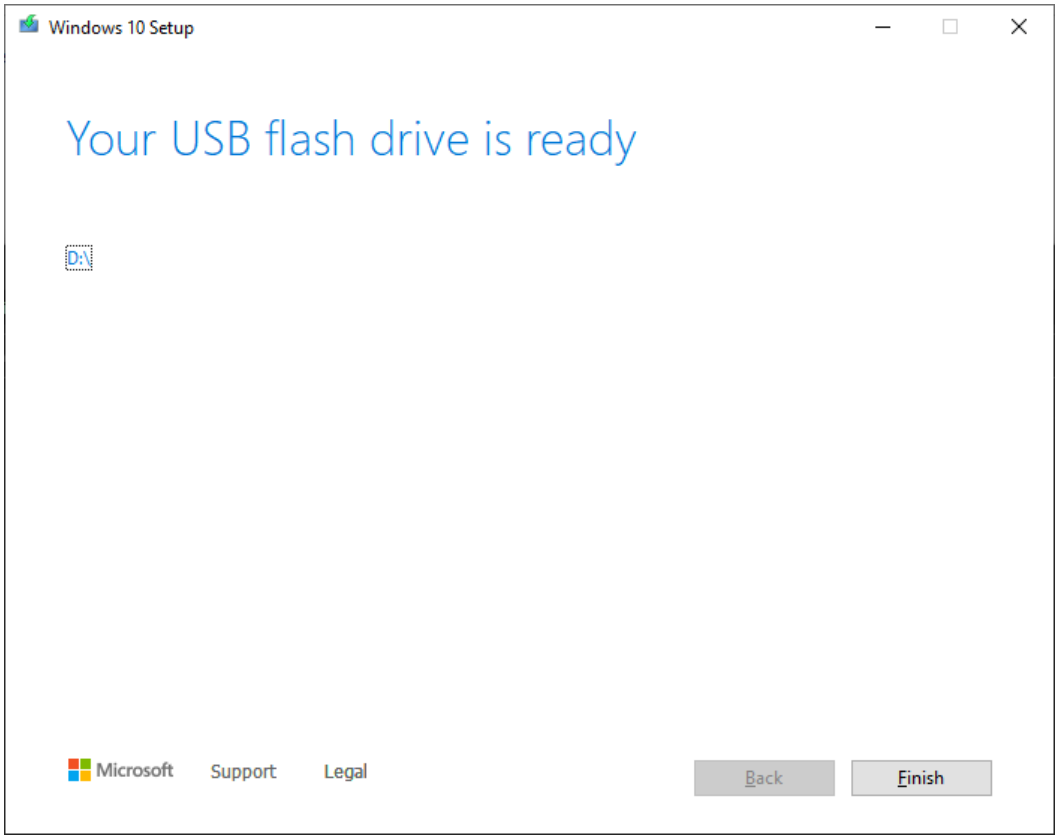



Windows 10 Setup
What do you want to do?
Upgrade this PC now
Create installation media (USB flash drive, DVD, or ISO file) for another PC
Microsoft
Support
Legal
Back
Next


Windows 10 Setup
Select language, architecture, and edition
Please select from one of the available options to continue.
Language
English (United States)
Edition
Windows 10
Architecture
64-bit (x64)
Microsoft
Support
Legal
Back
Next


Windows 10 Setup
Choose which media to use
If you want to install Windows 10 on another partition, you need to create and then run the media to install it.
USB flash drive
It needs to be at least 8 GB.
ISO file
You'll need to burn the ISO file to a DVD later.
Microsoft
Support
Legal
Back
Next

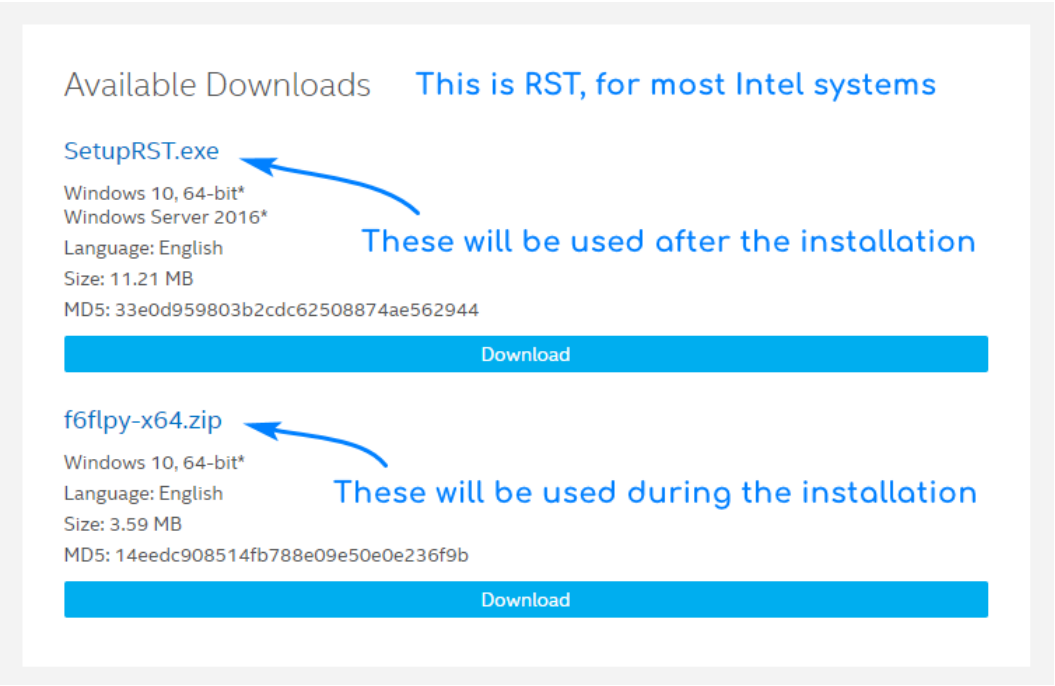

Windows 10 Setup
Downloading Windows 10
Feel free to keep using your PC.
Progress: 7%
Microsoft
Support
Legal
Back
Next



3. After the process, that USB stick will contain the Windows installation files, but we'll be adding to it several things.

   For one, you'll want the storage drivers to be installed from the beginning of the procedure. For Intel they're called Intel RST and can be downloaded either from the support page of your model or from Intel's Download Center. As for AMD, traditionally their SATA implementation didn't require specific drivers, but I don't know how things are on Ryzen 3000 and 4000 systems yet.

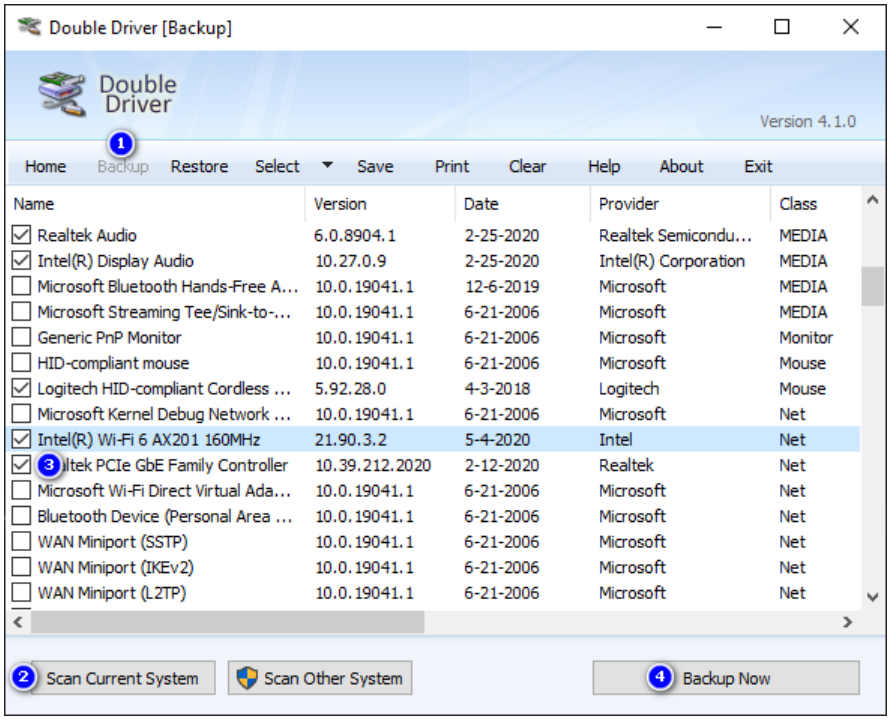
   By the way, if your system has an Optane module accelerator RST is going to be mandatory, but we'll get there. There are 2 packages and you'll need them both. Extract the one for the installation in a folder inside the USB stick and copy the other one as is, I chose "drivers/RST" for simplicity:

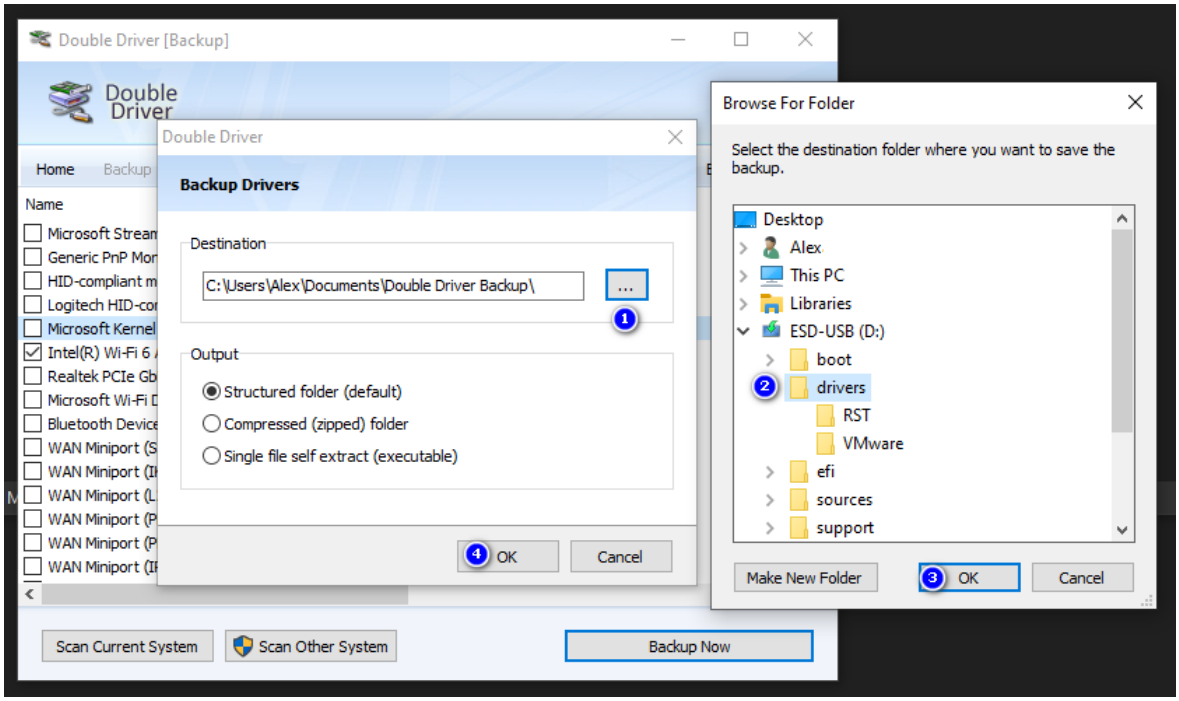


Now is where Double Driver comes in handy if one has access to the original system. There are drivers that come already with Windows, and some components have inbox drivers too, but many are external. What we're interested in are the WiFi (or Ethernet) ones, just in case the card is rare and there were no drivers by default in a fresh Windows installation; I don't know about you but I'd like to connect to the net after I'm done 😉.

Open the program and you'll see some drivers are selected by default, those are the ones that didn't come with Windows. If you know which one is your network adapter, you can select only that; but if you don't, keeping the defaults is fine too.

Choose to back them up in another folder inside the stick, Double Driver creates a folder structure so if you're like me and used a "drivers" folder before just point to that:



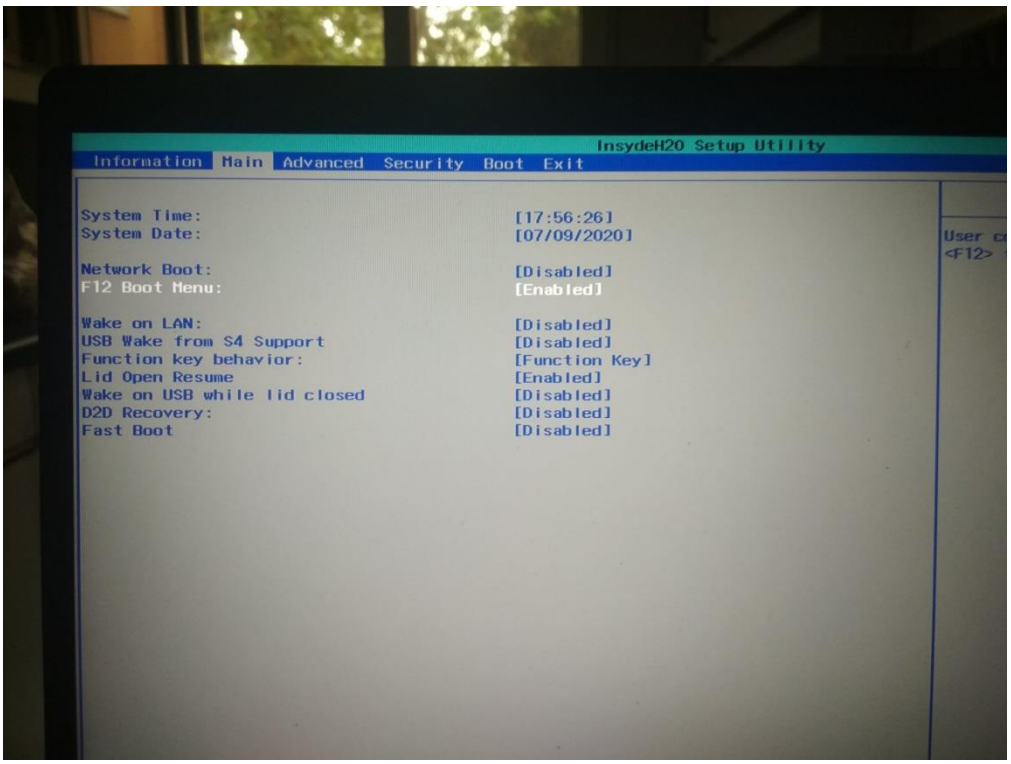


4. And now the fun begins! Access the firmware settings of your machine by pressing F2 repeatedly when booting and check 2 things:

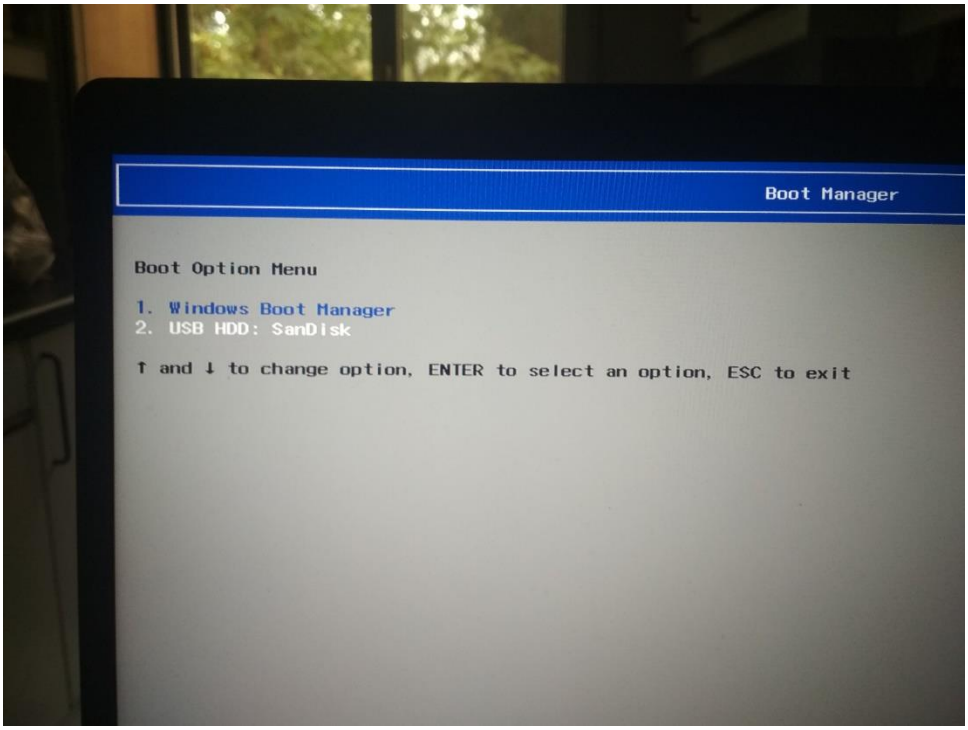
   - The default SATA operation mode. If you have an Optane module it must be RST with Optane, AHCI is the older standard.

     NOTE: To access that setting you may need to press Ctrl+S in the Main tab.

   - The boot menu is enabled. We'll be booting from the USB stick instead, so there's that
   - As for Legacy vs UEFI, it's dealer's choice. UEFI is more modern and the current standard, besides, in newer systems there may not be any other option.

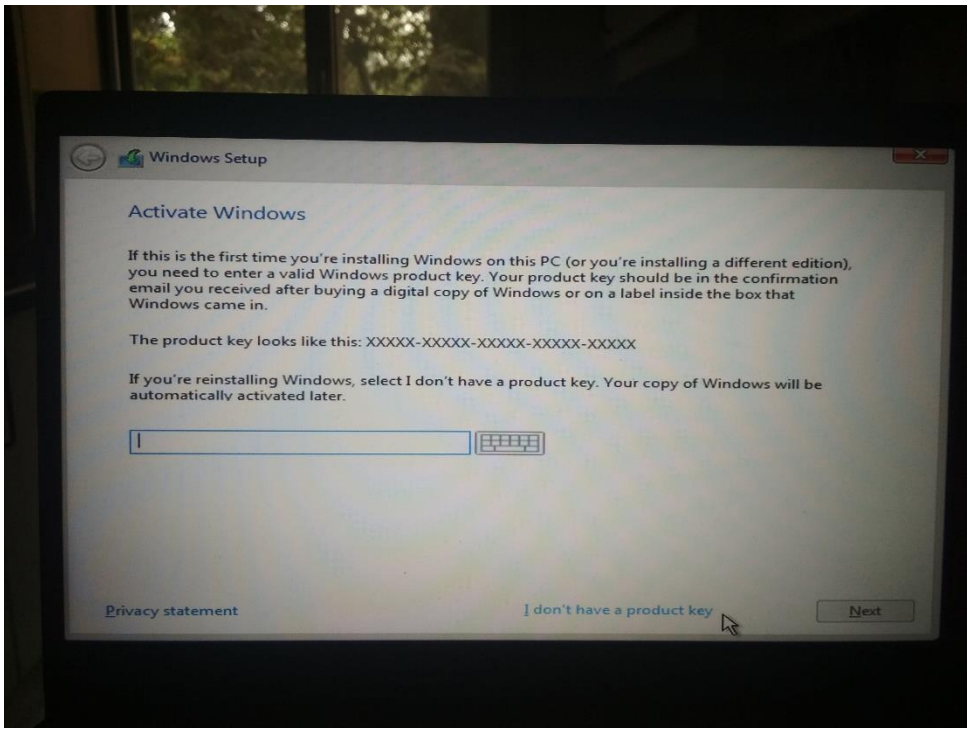


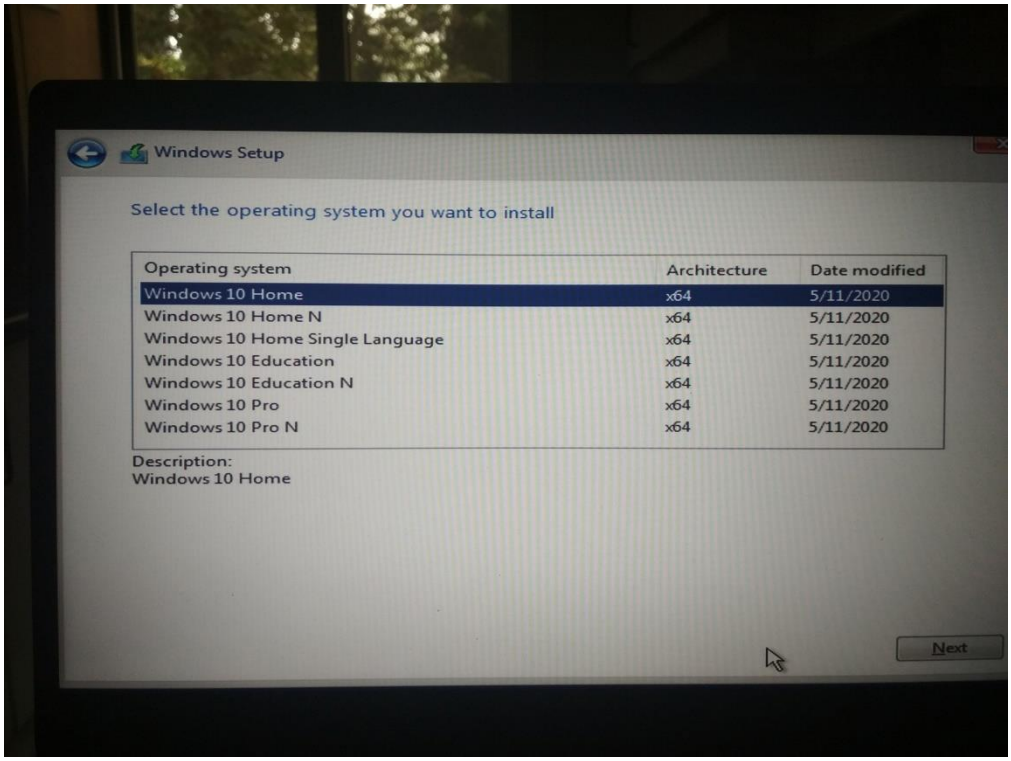
When the settings are right, save them and reboot. Then press F12 until the boot manager is presented and choose the USB stick that was just created:



5. You'll be presented with the Windows installation in a possibly huge manner, don't fret, it's because at this point of the installation the graphical drivers aren't installed yet.

   If your machine came with Windows, the appropriate version will already be selected (actually, you may not even see the selection screen), otherwise you'll be asked for the key. You don't have to enter it now; it can be skipped.

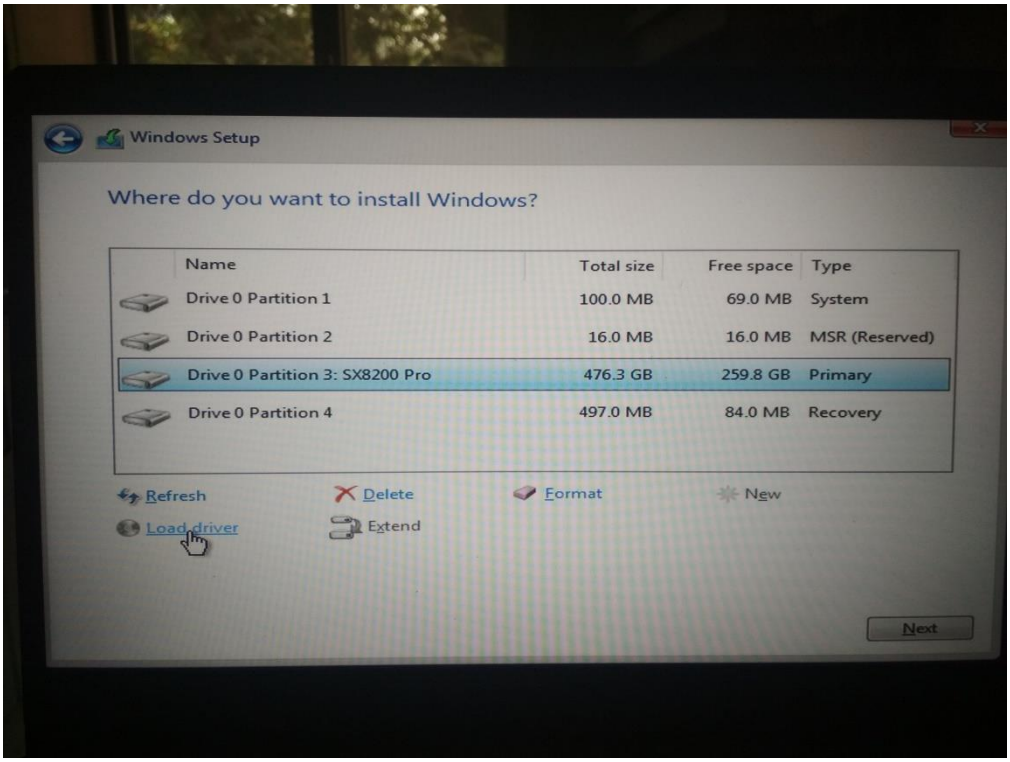


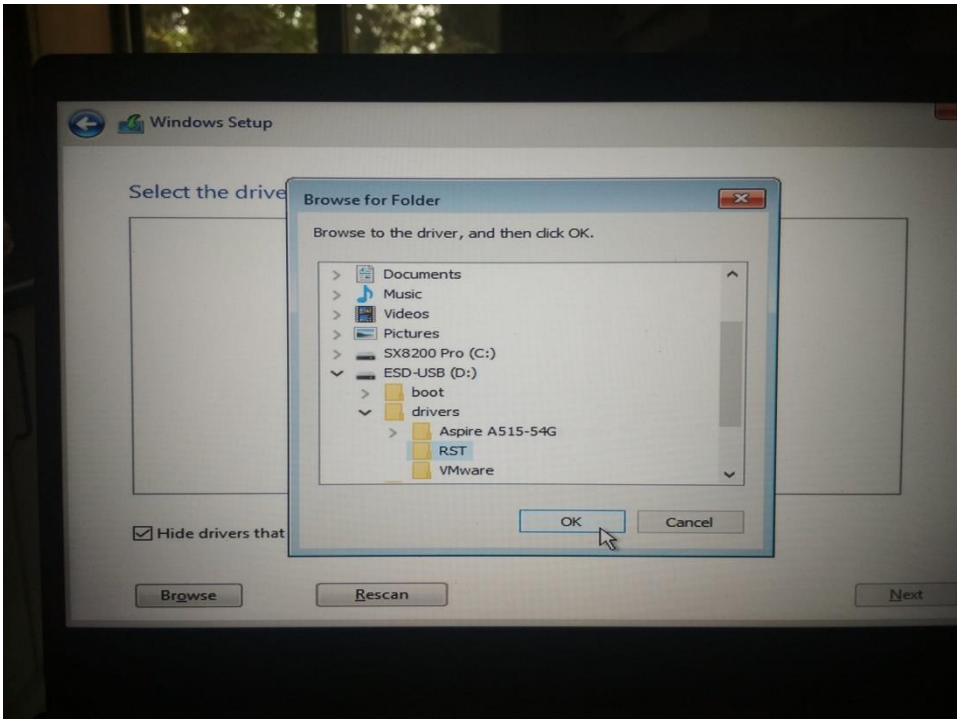


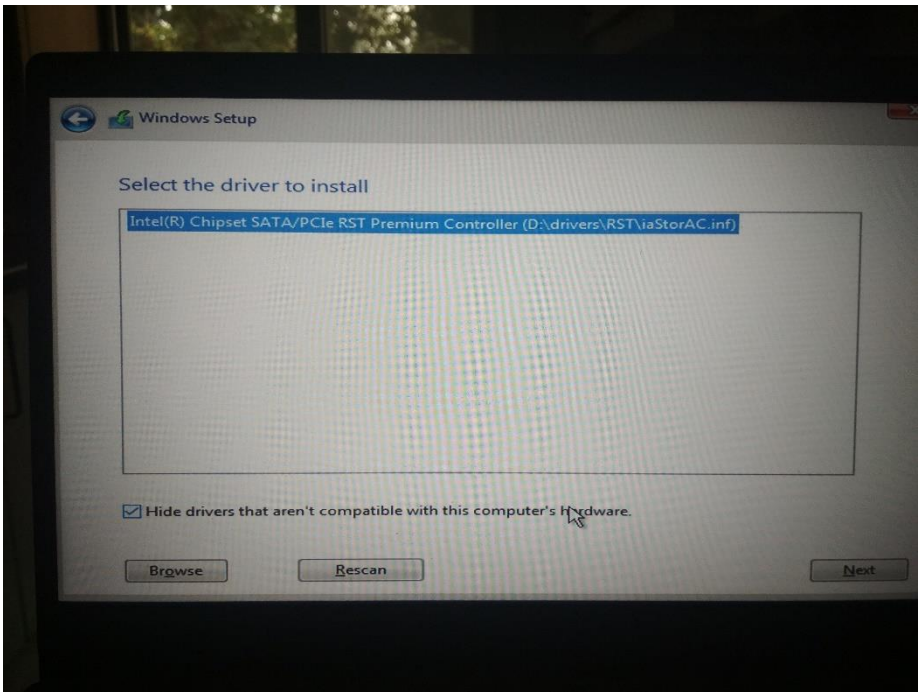
6. Next order or business, custom install all the way. And now 2 things can happen:

   - You see no drive, nowhere to install to: that happens if we need to load the driver we downloaded before (e.g. RST).
   - You see the current partitions of the disk, which means a driver is already provided.

     In any case, this is the stage in which I like to load the storage driver, just click on "Load driver" and point to the drivers folder we had previously created. The appropriate driver, if any, will be selected automatically:





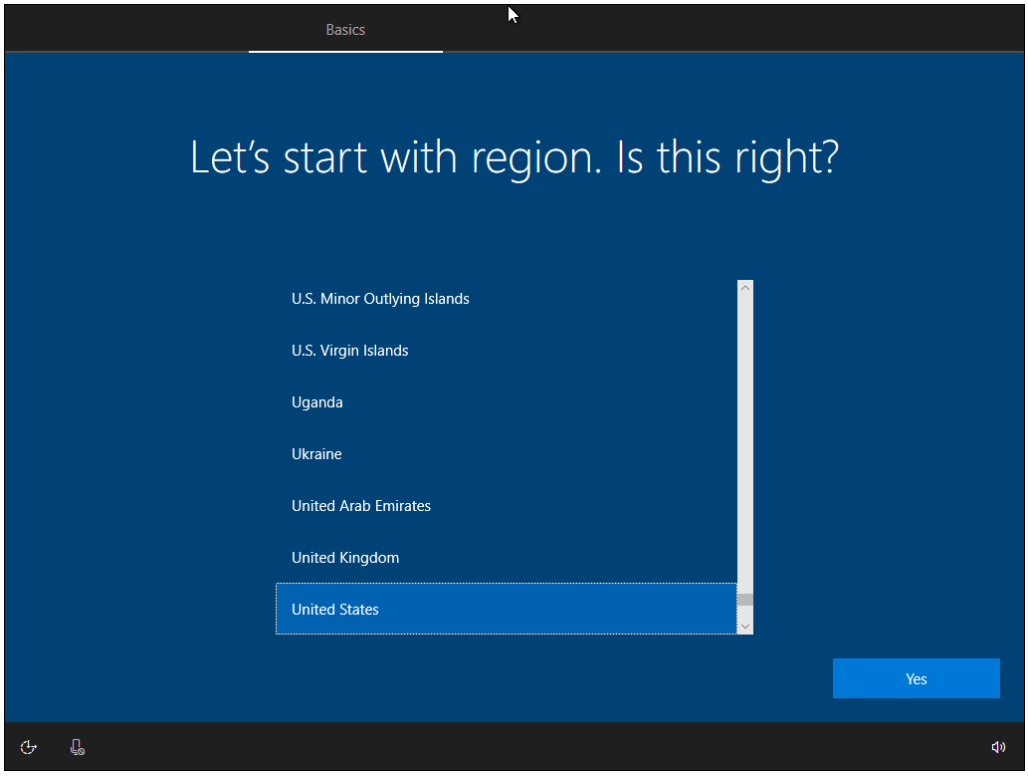


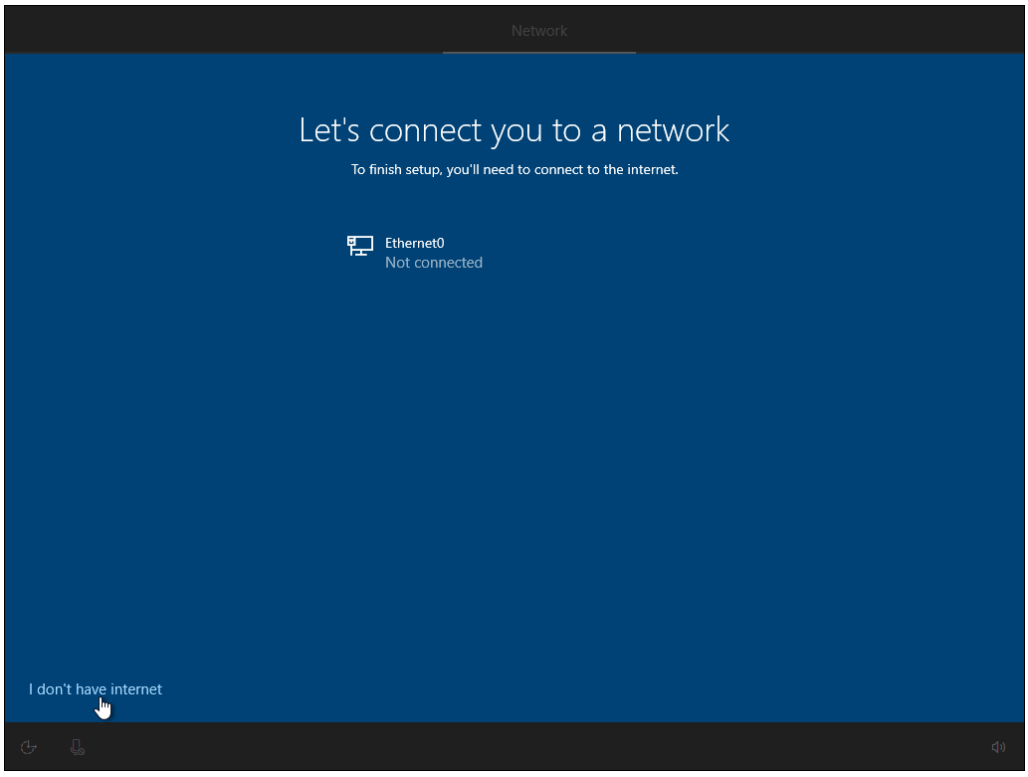
7. After you're brought back to the previous window, **delete** every partition you see. Yep, that's it, we want a clean install, so everything must go. Windows will create the appropriate set of partitions depending on the boot architecture (legacy or UEFI).

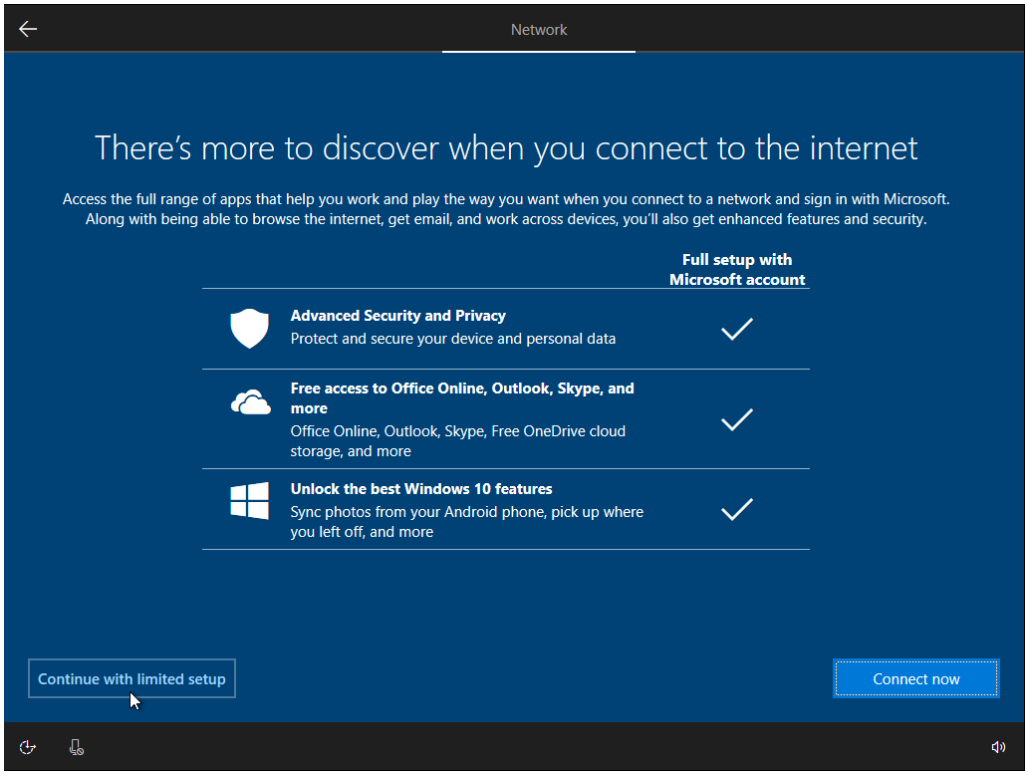
   NOTE: Optane users may need some extra steps later on, because Intel or Microsoft didn't test things properly, the Optane configuration utility may throw an error about not being able to resize the last partition of the disk to create metadata. If that is your case, you'll need to delete the last partition (the recovery one) and switch to a recovery in main partition scheme, or disable recovery altogether (which doesn't sound right, does it?)

   Anyway, click on the empty space, and "Next". The first stage of the Windows installation will begin, and a reboot will follow suit. After a couple of reboots, you'll be presented by the OOBE, the out-of-the-box experience.

8. Now you have a series of choices and settings to go through. It's pretty much personal choices, for example I prefer **not to** connect to the Internet just yet, I'd rather use a local account (at first at least). When you're done, you'll see your new desktop:

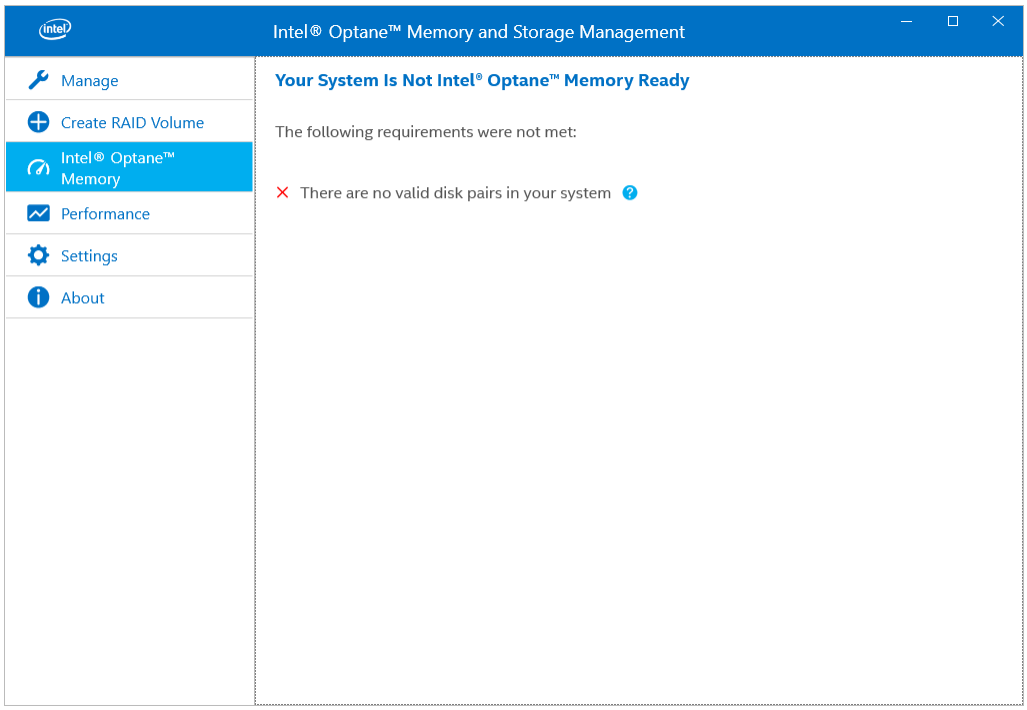






9. Now is where we can enable the Optane acceleration if your system has it, run the RST installation and try to enable it (or run into the error I mentioned earlier). I didn't have any Optane module in my machine because I was already using an SSD so that's what it reads.

   NOTE: AMD users need nothing of this sort, they can skip to step 10.

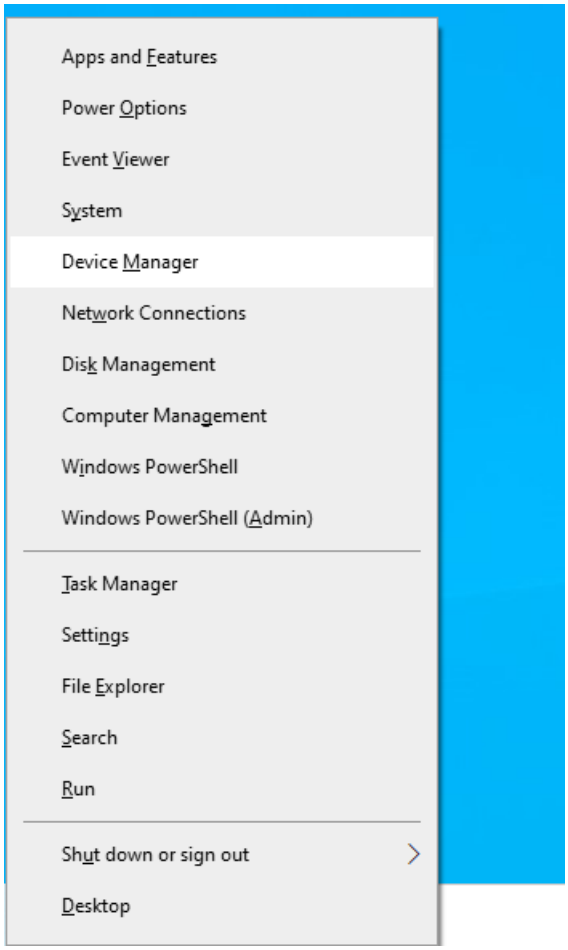


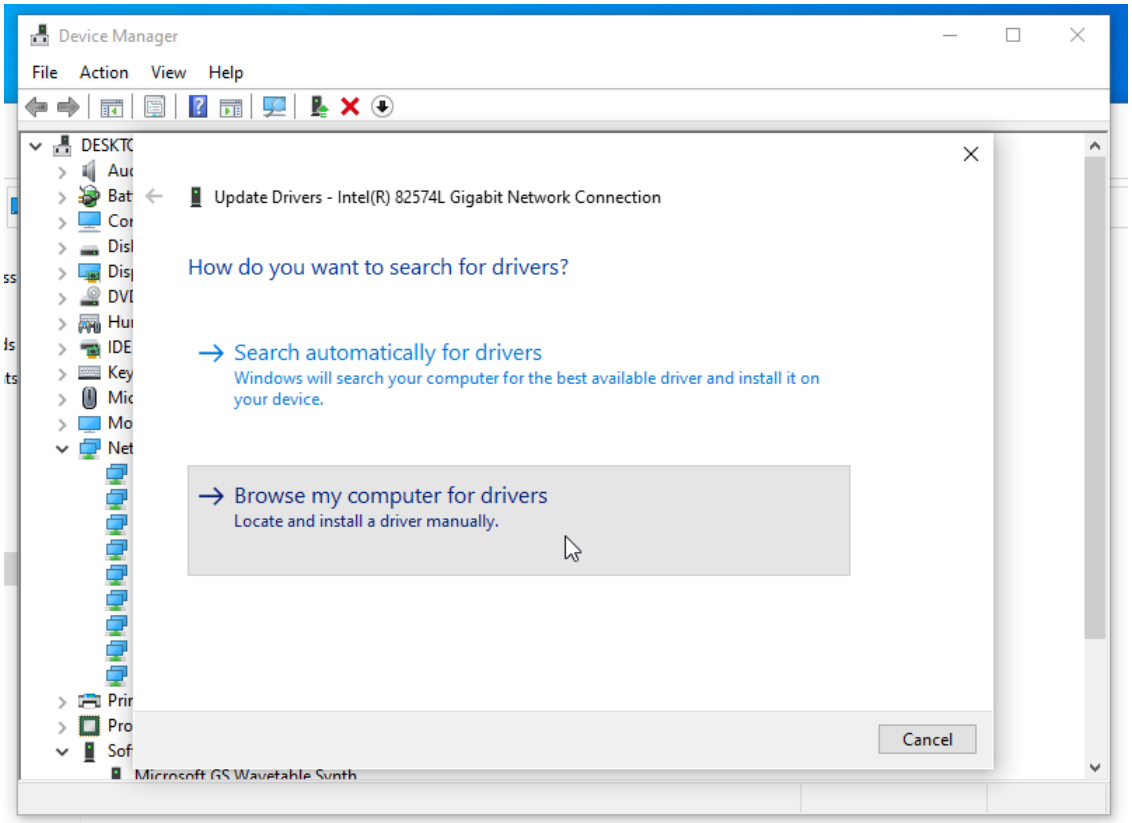
10. If you weren't presented with the option to connect to a WiFi network, and you have a laptop with a WiFi card, it's likely that your card requires a driver that's not provided by Windows. Here is where the Double Driver backup comes in handy.

    Open the Device Manager (for example by typing that in the Start menu, or selecting it from the Win+X

menu) and see if there's any yellow triangle-labelled item on the list with a name similar to "Network adapter". Disregard the rest of the yellow triangles for now.

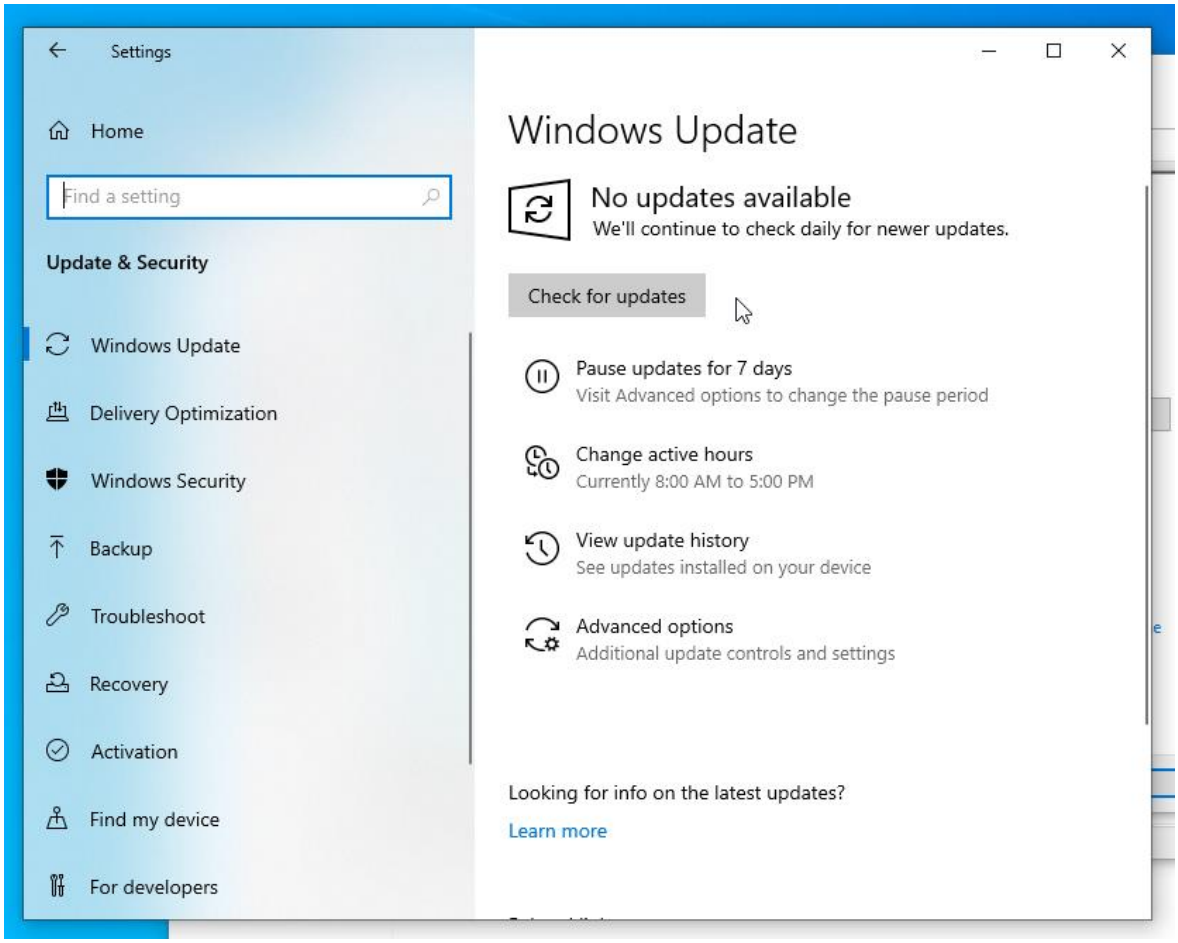
If there's any, right click it and choose to update its drivers:





Browse to the "drivers" folder in the USB stick and let it do its thing, after that you should be able to connect to your network if you weren't before.

11. Last but certainly not least, Windows Update. After you're connected to the Internet Windows will already try to activate your machine and search for missing drivers for the yellow triangle devices. Updates will not only install the latest cumulative update but also remaining drivers. You'll need to reboot the machine most likely, but afterwards you'll have a cleanly installed Windows 10 system on your machine!



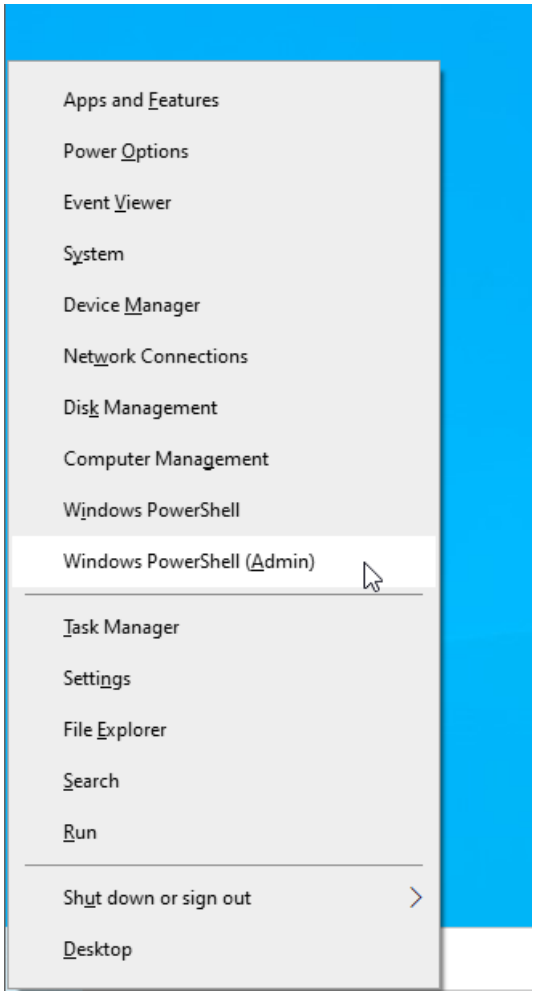
12. A couple of things remain, first make sure there are no devices in the Device Manager that display a yellow triangle. If there are, those don't have drivers available in Microsoft's Catalog and you'll need to download them from the support page or use one of those driver update utilities, like Driver Easy for example.

    Another important thing for laptops is installing the app that controls keyboard shortcuts, which is called Quick Access in Acer systems. You can download it from your support page, but here's a quick link just in case: v3.0.3010.

    And that's it, install anything you like at this point and enjoy your new system! Some apps I find useful would be FastStone Capture *(paid)*, Hard Disk Sentinel *(paid)*, HWiNFO, Macrium Reflect, MPC-BE, Notepad3, Paint.NET, Search Everything, Space Sniffer, SumatraPDF or Tresorit, for example. Give some a try, you may find one that suits you 😉.

EXTRA: If you need to relocate the recovery image, whether you want to get rid of the recovery partition or you must, follow these steps to get it done. I must say I can't possibly recommend this unless you want to have a single partition system, or you need it for Optane. Having the recovery image separate is a good idea.

1. Mount the recovery partition. We'll be using DiskPart for that, open a PowerShell or Command Prompt as an administrator, for example by pressing Win+X to bring up the right click menu of Start and then launching it from there:

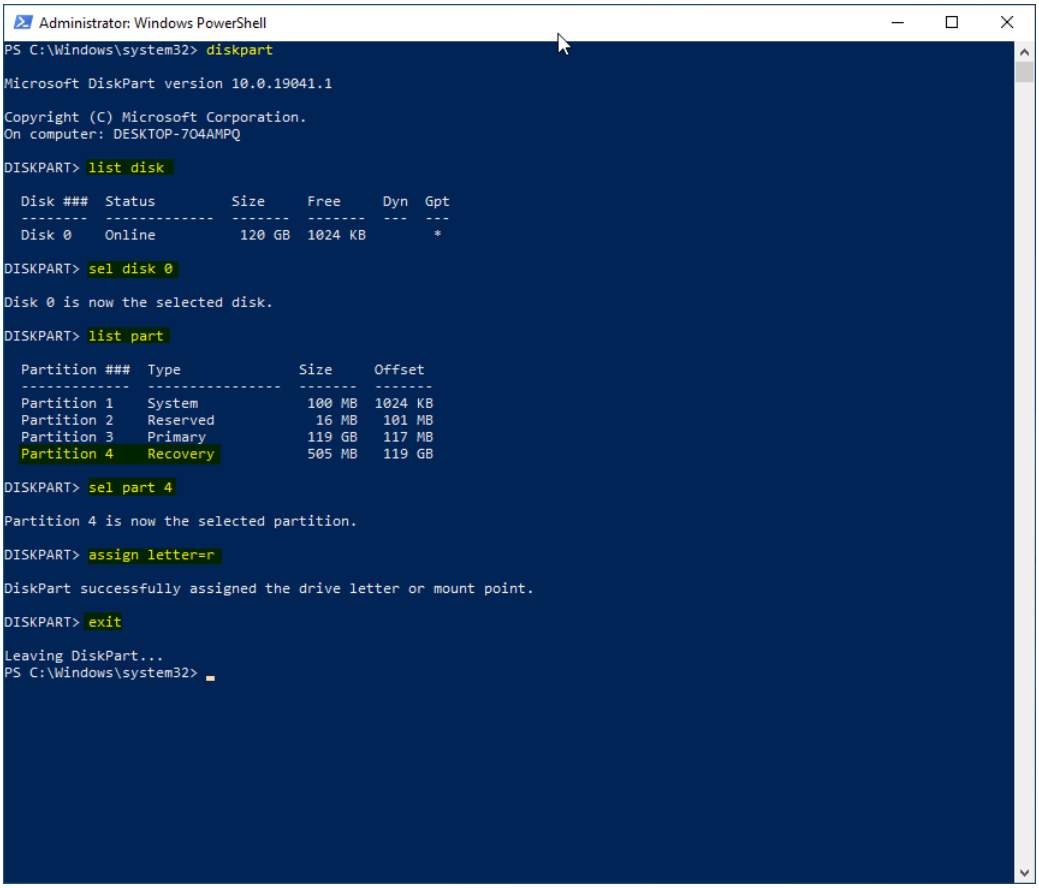


2. These are some basic commands:

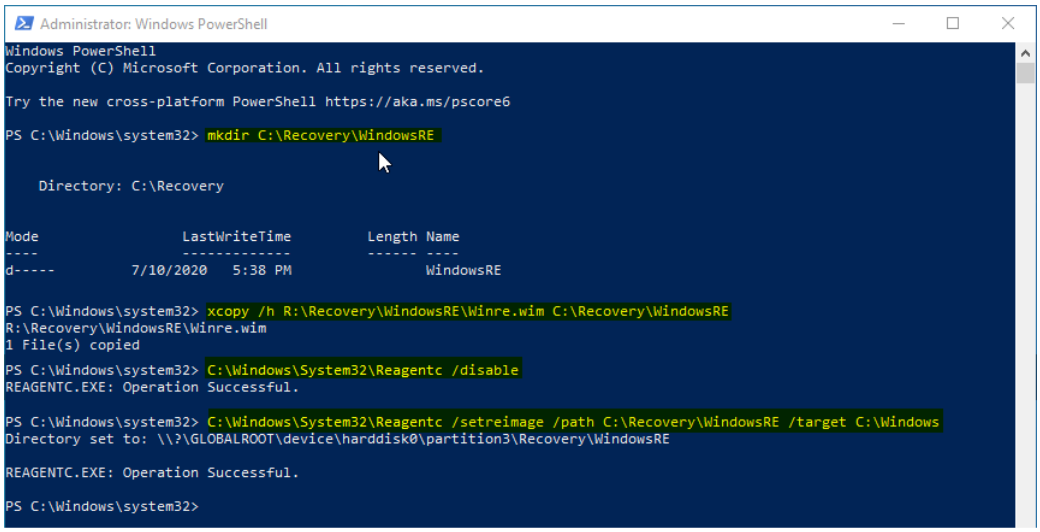
   - `list disk`: shows the disks in the system.
   - `list part`: shows partitions of the selected disk.
   - `sel disk/part`: selects a disk or partition.
   - `assign letter=X`: assigns a letter to that partition.

   It's likely that the partition numbers are the same in your system, but, double check that you're selecting the recovery partition just in case 😉.

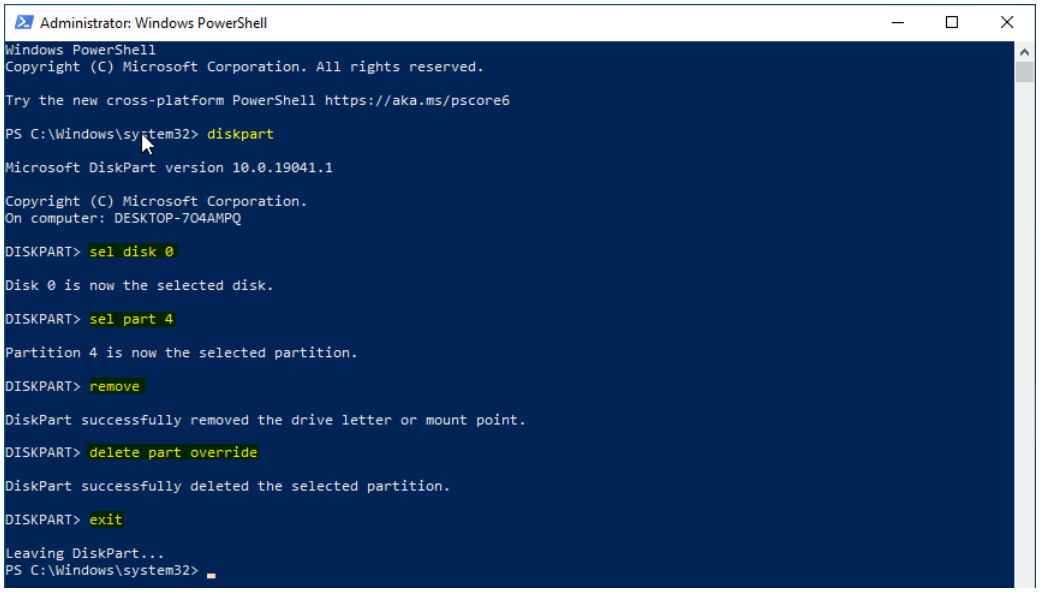
   The highlighted areas are generally things one needs to type:



3. After that, the recovery partition is mounted in the letter R. Now we need to copy the recovery image to a folder in the C drive (the operating system drive in this case), so we create it, copy the file, disable the use of the one in the partition and direct Windows to use the new location when necessary:



4. Finally, we need to remove access to the recovery partition and delete it, for which we'll use DiskPart again:



5. And that's it, the recovery partition is no more, and the system will use the new location instead.

Enabling Optane now shouldn't give you any problem by the way, after all the last partition of the disk is now the main one and there's plenty of space in there (plus some 500MB we freed up from deleting the recovery partition).