

How to fresh Upgrade mistakenly installed 32-bit Windows 10 Professional to 64-bit Windows / A failure to Disk Clone old SSD 120GB to 512GB HDD due to failed Solid State Drive

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I've been *Setting up a new PC with Windows OS* that is a bit old a 11 years old *Lenovo ThinkCentre model M90P* with 8 GB of Memory, Intel(R) Core(TM) i5 CPU 650 @ 3.20GHz 3.19 GHz, Intel Q57 Express Chipset. The machine came to me with Windows 7 preinstalled and the initial goal was to migrate Windows as it is with its data from the old 120GB SSD to new 512 SSD and then to keep the machine at least a bit more up to date to upgrade the old Windows 7 to Windows 10.

This as usual seemed like a very trivial task for a System Administrator, and even if you haven't touched much of Windows as me it makes it look a piece of cake, however as always with computers, once you think you'll be done in 2 hours usually it takes 20+ . Some call it Murphy's law "If something could go wrong then it will go wrong". But putting this situation that I thought all well that's easy lets do it is a kind of a proud Thought for man and the to save us from this Passion of Proudness which according to Church fathers is the worst passion one can have and humiliate us a bit.

God allows some unforeseen stuff to happen :) The case with this machine whose original idea I had is to OK I Simply Duplicate the Old Hard Drive to the New one and Place the new one on the ThinkCentre is not a big deal turned to a small adventure :)

For this machine hardware I have to say, the old English saying "Old but Gold" is pretty true, especially after I've attached the Samsung 512GB NVME SSD Drive, which my dear friend and brother in Christ "Uncle Emilian" had received as a gift from another friend called Angel. To put even more rant, here name Emilian stems from the Greek Emilianos which translated to English means Adversary.. But anyways The old Intel SSD 120 GB drive which besides being already completely Full of Data, turned to have Memory DATA Chips (that perhaps burn out / wasted), so parts of the Drive were **Unreadable**.

I've realized the faulty SSD fact after, trying to first clone the drives with my Hardware Disk Clone device **Orico Dual Bay 2.5 6629US3-C** device and then using a simple bit to bit copy with **dd** command.



At first for some weird reason *the Cloning of 120GB SSD HDD towards -> 512 GB newer one was unsuccessful - one of the 2 lamp indicators on Source and Destination Drives was continuously blinking orange as it seemed data could not be read*, even though I tried few times and wait for about 1 hour of time for the cloning to complete, so I first suspected that might be an issue with my last year bought **Disk Clone hardware** device. So I've attached the **2 Hard Drives** towards my *Debian GNU / Linux 10 as USB attached drives using the "Toaster" device* and tried a classical copy from terminal with **Disk**

Druid e.g.

```
# dd if=/dev/sdb2 of=/dev/sdbc2 bs=180M status=progress conv=noerror, sync
```

```
dd: error reading '/dev/sdb2': Input/output error 1074889+17746
records in 1092635+0 records out 559429120 bytes (559 MB, 534 M
iB) copied, 502933 s, 1.1 kB/s dd: writing to '/dev/dc2': Input/
output error 1074889+17747 records in 1092635+0 records out 55
9429120 bytes (559 MB, 534 MiB) copied, 502933 s, 1.1 kB/s
```

Finally I did a manual copy of files from **/dev/sdb2** **/dev/sdc2** with rsync and part of the files managed to be successfully copied, about 55Gigabytes out of 110 managed to copy. Luckily the data on the broken Intel 320 Series 120GB was not top secret stuff so wasting some bits wasn't the end of the world :)

Next, I've removed the broken 120Gb SSD which perhaps was about at least 9+ years old and attached to the Lenovo ThinkCentre, the new drive and as my dear friend wanted to have Windows again (his computer has Microsoft "**Certificate of Authenticity**"), e.g. that OEM Registration Serial Key for Windows 7.

Certificate
of
Authenticity



I've jumped in and used some old **Flash USB Stick Drive** to place again Windows 7 (in order to use the same active license) and from there on, I've used another old Windows 10 Installation Bootable stick of mine to upgrade the Windows 7 to Windows 10 (by using this Win 7 to Win 10 upgrade trick it is possible to still continue use your old Windows 7 License Key on Windows 10). So far so good, now I've had **Windows 10 Professional Edition** installed on the machine, but faced another issue the Memory of the Machine which is 8GB did not get fully detected the machine had detected only **3.22 GB of Memory**, for some weird reason.

About



Windows 10

PC name 32bitWin10Insider

Rename this PC

Organisation WORKGROUP

[Connect to work or school](#)

Edition Windows 10 Pro

Version 1703

OS Build 16170.1000

Product ID 00330-80000-00000-AA762

Processor Intel(R) Core(TM) i5-7500 CPU @ 3.40GHz 3.40 GHz

Installed RAM 8.00 GB (3.22 GB usable)

System type 32-bit operating system, x64-based processor

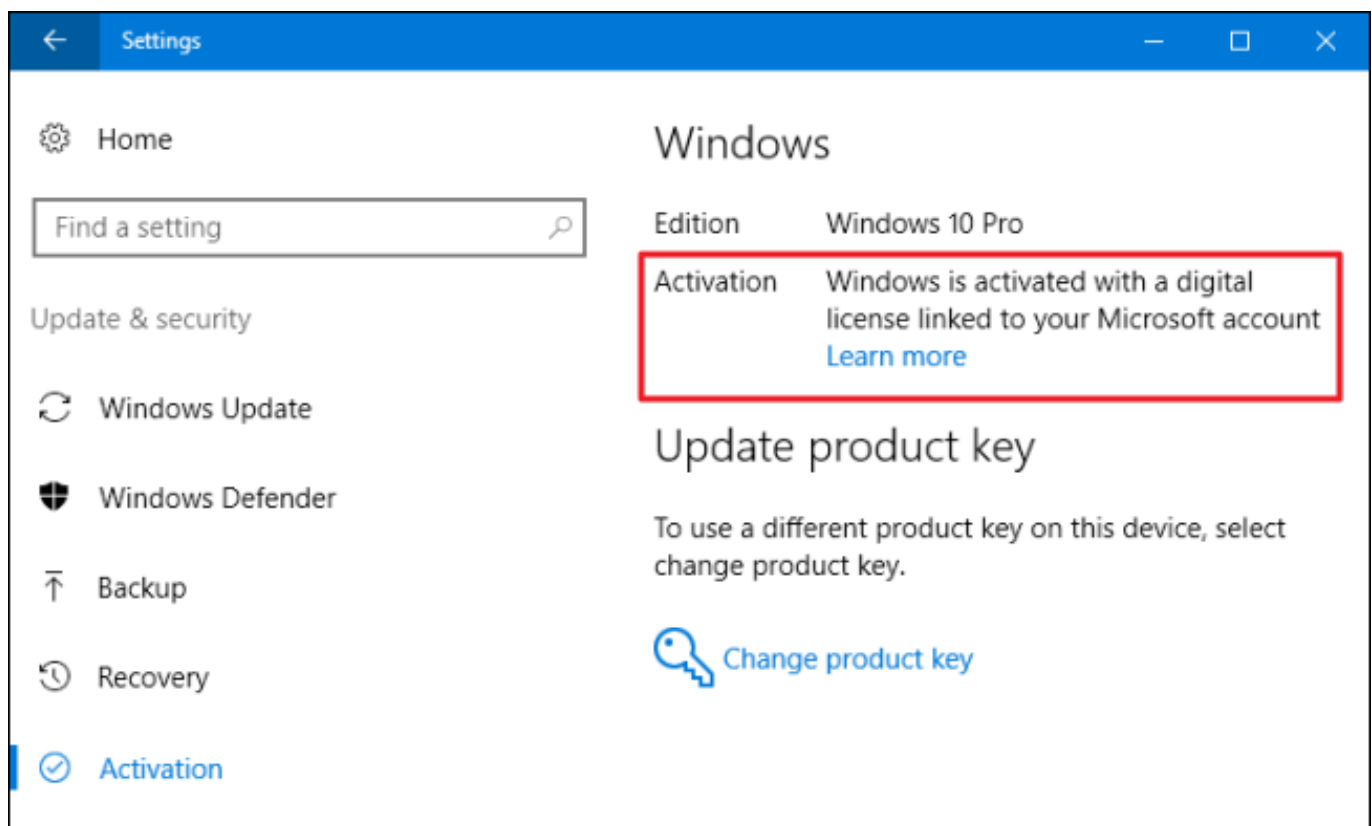
Pen and touch No pen or touch input is available for this display

After few minutes of investigation online, I've realized, I've installed by mistake a 32 Bit version of Windows 10 Pro... So the next step was of course to upgrade to 64 bit to work around the unrecognized 5.2GB memory... To make sure my Windows 10 Installation is up-to-date I've downloaded the latest one from the **Media Creation Installation Tool** from Microsoft's website used the tool to burn the Downloaded Image to an **Empty USB Stick (mine is 16GB but minimum required would be 4Gb)** and proceeded to reboot the Lenovo Desktop machine and boot from the **Windows 10 Install Flash Drive**. From there on I've had to select I need to install a 64 Bit version of Windows and *Skip the Licensing Key fill in Prompt* Twice (act as I have no license) as Windows already could recognize the older OEM installed 32 bit install Windows key and automatically fetches the key from there.

Before proceeding to install the 64 Bit Windows, of course double check that the Machine you have at hand has already the **License Key** recognized by Microsoft is 64 Bit capable:

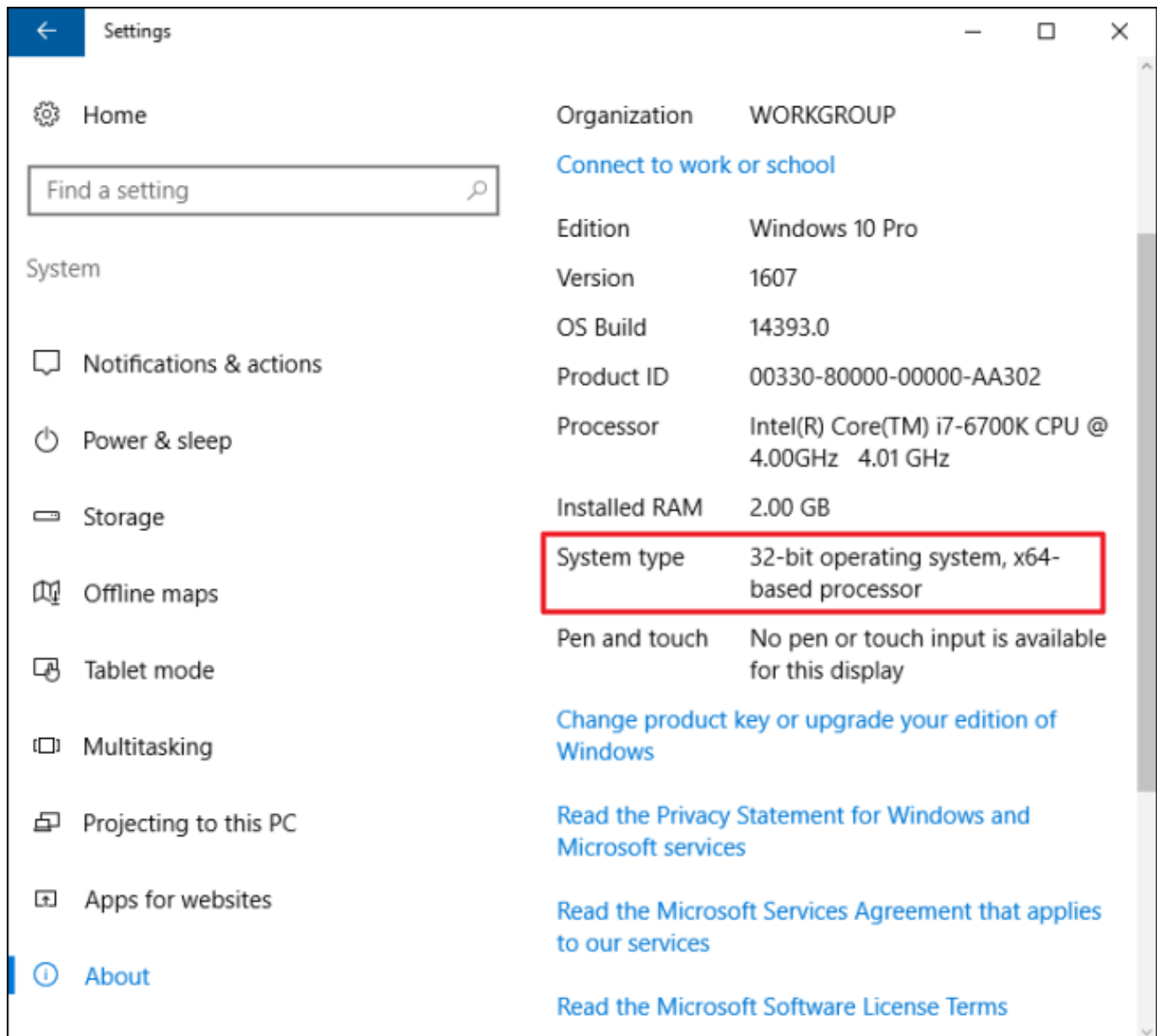
To check 32 bit version of Windows before attempted upgrade is Properly Licensed :

Settings > Update & security > Activation

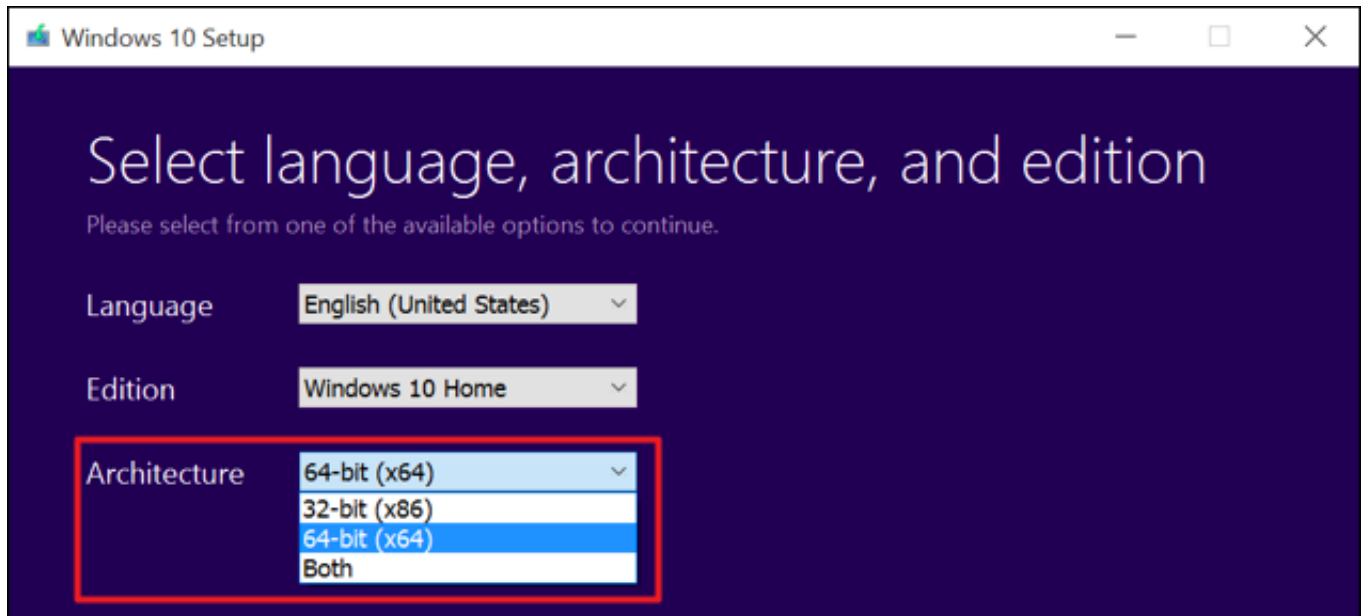


To check whether Hardware is 64 Capable:

Settings > System > About



32 bit Windows on x64based processor (Machine supports 64 bit OS)



Media Creation Tool Windows 10 MS Installer tool (make sure you select 64-bit (x86) instead of the default)

From the Installer, I've installed Windows just like I install a brand new fersh Win OS and after asking the few trivial Installation Program questions landed to the new working OS and proceeded to install the usual software which are a must have on a freshly installed Windows for some of them check my [previous article Essential Must have software to install on Fresh new Windows installation host](#).