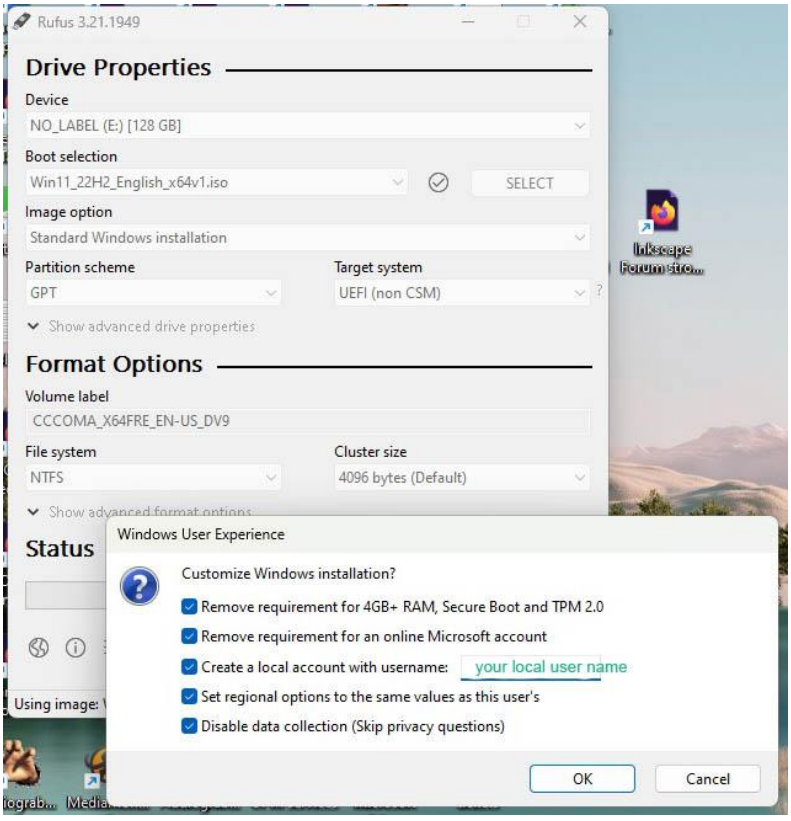
How to copy an Acronis tibx backup to a larger drive that has fragmented (non-contiguous) partitions

First – ensure you have a Windows flash drive handy. Especially if you want to upgrade to Windows 11.

Before upgrading make sure your recovery partition is large enough because else Windows 11 will create an additional recovery partition and fragment the contiguousness of the drive making it hard to expand the c: drive.

Before upgrading to Windows 11 unplug all USB devices except your flash drive or cloning drive. I had an APC UPS plugged in and kept getting an UNEXPECTED_KERNEL_MODE_TRAP due to USBSTOR.SYS, Unplugging the USB cord let it go through OK.

If you want to save your existing Windows 10 settings and just upgrade to Windows 11 do the following: Download a Windows 22H2 iso https://www.microsoft.com/software-download/windows11 and Rufus 3.21 at https://rufus.ie/en/. Use Rufus and load Windows 11 to a flash drive and check all 5 boxes in Rufus. This will allow Windows 11 to install without the TPM chip requirement, without a Microsoft account, and update all programs and settings.



From a running Windows 10 computer – run setup.exe from the Rufus created flash drive. This will update your PC to Windows 11.
If you encounter errors installing check the following:
c:\>mountvol y: /s
c:\>cd /efi/Microsoft/boot/fonts
c:\efi\microsoft\boot\fonts>del *.ttf (sometimes it needs more room – this will not hurt anything.

This is especially true if you try and update the BIOS – it needs more room in the EFI partition)

From a running Windows 10 computer – run **setup.exe** from the Rufus created flash drive. This will update your PC to Windows 11 and keep all your settings and programs. Otherwise boot and run the setup.

After all the updates and before first login do the following:

Put your PC in airplane mode or disable your WiFi and/or unplug Ethernet

open a Command Prompt as Administrator

c:\>netsh interface show interface

c:\>net interface set interface "Wi-Fi" disable

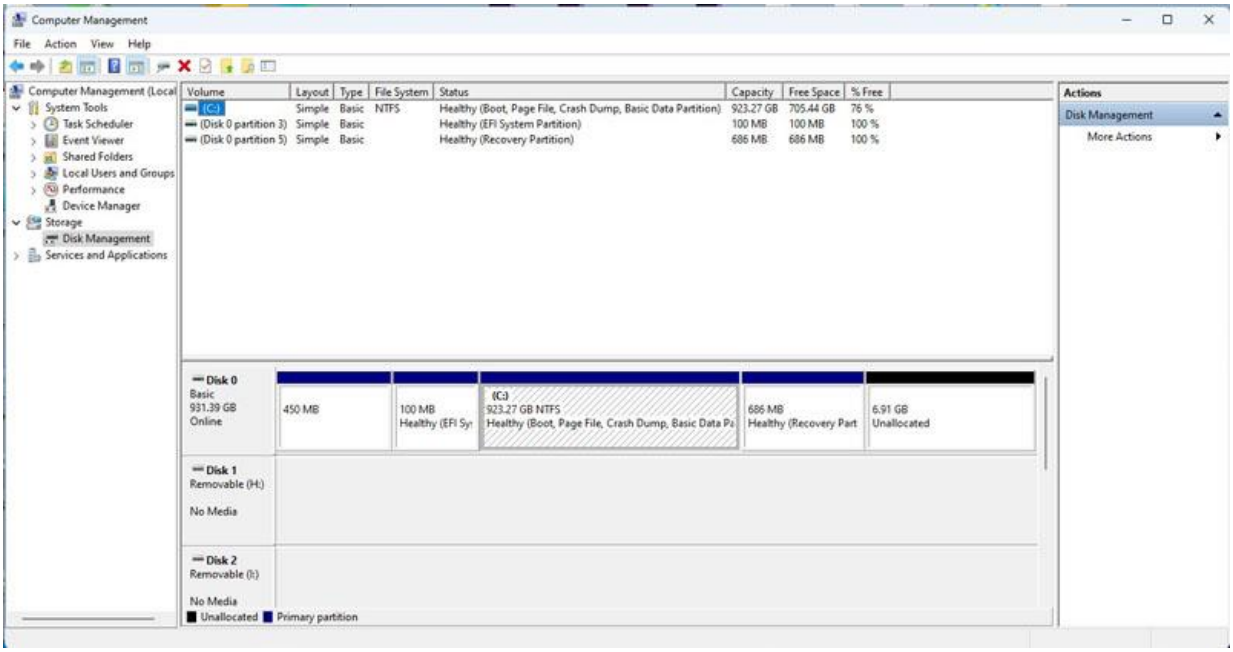
try pinging google.com to see if the Internet is down

c:\>**oobe\bypassnro** (this disables the Microsoft login and uses your existing local account) It will reboot your system.

After rebooting and logging in

c:\>net interface set interface "Wi-Fi" enable (reenable Wi-Fi)

Now that you have Windows 11 on your computer the partitions may be non-contiguous.



In the above graphic the **Recovery Partition** was put at the end. If you restore this to a larger drive it will place the partitions as above but unallocated will be after the Recovery Partition and you cannot expand the c: drive partition.

If an EFI System Partition or Recovery Partition comes after the c drive here is how to fix it. Below is an example:

Part1 /Part2 /Part3 /Part4 /Part5

Track0/System/c:\windows(NTFS)/Recovery/unallocated space. You cannot expand the c:\windows because the **Recovery Partition** is in the way.

So now we want to go to a larger drive. Sometimes Acronis will not recognize a drive until it is initialized. In Acronis you can add a new drive (it will initialize it) or I take the drive, attach as a USB or boot from a Fedora Linux USB drive, download and run GPARTED and initialize the drive as GPT and create an NTFS partition and label it 2tbnewdrive (example – I like this label so the target can be identified below).

Create an Acronis backup to a USB drive (either from Acronis on the PC or via an Acronis .iso bootable flash drive made with Rufus).

Shutdown the computer and place the new larger drive in the PC.

Plug your USB tibx backup drive in.
Boot from a USB drive made from Rufus and an Acronis 2021 iso.
Select restore and the source is the tibx on the USB drive.
Target will be the new drive (2tbnewdrive) and overwrite anything.

Do not select entire disk – restore individual partitions one at a time in this sequence.

Restore Track 0 with MBR
Restore System EFI
Restore Recovery
Restore Windows c: and expand to cover all unallocated space

If the drive will not boot but recovery was successful.

*Boot from a Windows 10/11 USB drive created above
Click Next
Select **Repair your computer**
Select **Troubleshooting**
Select **Advanced**
Select **Command Prompt**
X:\sources
X:\sources\Diskpart
Diskpart>List disk
Diskpart>select disk 0 (gpt with *)(your Windows drive)
Diskpart>list partition
Diskpart>select partition 2 (whichever your EFI partition is on)
Diskpart>assign letter=s
Diskpart>Exit

X:\sources>s:
S: dir (this is to ensure you are on the correct drive – look for the EFI folder)
S:\>EFI
S:\>format s: /FS:FAT32
Answer Y twice
When asked for a name use System
S:\>bcdboot d:\windows /s s: /f UEFI (d: is your windows drive – change drive letters from CMD until you see your Windows files)

S:\>exit
Select Continue to Windows 10/11

It should boot now.

Sometimes you will see multiple recovery partitions. Here is how to fix them.

C:\> reagent /info
shows the recovery partitions – look for enabled
c:\>diskpart
>List disk
>select disk n
>List partition
>Select partition n (where n is the one not enabled)
>delete partition
>exit

Use minitool https://www.partitionwizard.com/ free version to create new partition in the space that is unallocated since deletion and make it ntfs (ntfs is needed to merge partitions)
minitool merge Good Recovery partition with adjacent empty partition created above

To put both Windows and Linux on the same drive

Use linux gparted to make two partitions on the drive. 1st one will be NTFS and the second ext4 so Windows doesn't take up all the space.

Restore Acronis windows to partition1
Load linux to partition2 – in setup delete the ext4 partition and setup. I like to create a 100gb / and a decent size /home (data) and also a swap drive double the RAM size.

When booting either get to the BIOS and select the drive most used as the first drive. You can also press F12 or (F9 if HP) and select the OS you want to boot from.

It is always good to download the latest Linux iso, create a bootable flash drive (I do both CMS and UEFI) made from Rufus. They always work and can get you out of a jam. These will boot to a live version of Linux. I use Fedora and once I boot up I do a sudo dnf install –y gparted from a terminal and can do any drive modifications.

Some like the WinPE vice RUFUS but I have had problems and lost a drive with WinPE. RUFUS always works.

These are what I like to use. If it ain't broke don't fix it.