

How to transfer Ubuntu on WSL from one laptop to another?

Asked 10 months ago Modified 10 months ago Viewed 4k times



New to Linux and Ubuntu. I am trying to transfer my old Ubuntu WSL files to my new Windows 11 laptop.

1



I have gone through similar questions, but none seems to help my case.



I am trying to clone the WSL of my old laptop on a USB hard drive so I can transfer it to my new laptop, but the USB is not listed when I enter `lsblk` or any other command that lists the drives on laptop.

Results of `wsl -l -v` from the comments:

NAME	STATE	VERSION
docker-desktop-data	Running	2
* Ubuntu	Running	2
docker-desktop	Running	2

I need to transfer files from both `Ubuntu` and the `docker-desktop-data`.

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edited Sep 15, 2022 at 13:41



NotTheDr01ds

14.6k 5 50 76

asked Sep 14, 2022 at 18:31



Leo

111 1 4

Okay, the Docker part might be slightly more difficult - At least it's not something I've tried myself. I'll get you an answer, but might be a bit. – **NotTheDr01ds** Sep 14, 2022 at 23:16

@NotTheDr01ds when i ran the command set default Ubuntu_WSL the following error log :There is no distribution with the supplied name Wsl/Service/WSL_E_DISTRO_NOT_FOUND. Also the import just take forever. Can you help,please? – **Leo** Sep 16, 2022 at 6:17

Sorted by:

Highest score (default)



2 Answers



3

If you just want to copy a few files out of Ubuntu, then you can certainly use the `\\wsl$\\Ubuntu` method that @Android776 propose in the [other answer](#). However, that will pretty much only work properly for files that your Linux user created and owns. Other files will



lose their permissions and/or owner (typically `root`), and some system files won't be readable at all that way, (e.g. `/etc/shadow`).



Since you say that you want to move the Docker data over to the new laptop, you're going to need to use the `--export` method described below anyway, so you might as well use it for both the Ubuntu filesystem as well as that of Docker.

Backing up is the easy part -- WSL provides the ability to export a distribution, which creates a `tar` file that can then be imported again, either on the same computer (as a new distribution) or on another system.

I'm going to assume that your USB drive is `D:`, but substitute whatever drive letter you need below.

From PowerShell:

```
wsl --export Ubuntu D:\ubuntu.tar
wsl --export docker-desktop-data D:\docker-desktop-data.tar
```

There's no need to export `docker-desktop`, since it will be automatically re-created properly when you install Docker Desktop on the new laptop.

Eject the USB drive (properly, using the Eject command from the taskbar) and move it to the other computer.

On Windows 11 on the new computer:

- Start an Admin PowerShell.
- `wsl --install` (if you haven't already)
- Reboot when told.
- Complete the installation, which will install a new Ubuntu -- You won't use this one.
- Remove this newly installed Ubuntu. From a *non*-Admin PowerShell:

```
wsl --unregister Ubuntu
```

Important: Only do this on the new computer, and only immediately after installing this way. This will remove all files from the *newly installed* Ubuntu version.

- Next, we restore the Ubuntu distribution that we backed-up to the USB drive. Attach the USB drive (again, assuming `D:`).
- Again, from a *non*-Admin PowerShell:

```
# Adjust paths and names below as desired
mkdir $env:USERPROFILE\WSL\instances\Ubuntu_WSL2
wsl --import Ubuntu_WSL2 $env:USERPROFILE\WSL\instances\Ubuntu_WSL2
D:\ubuntu.tar --version 2
wsl --set-default Ubuntu_WSL2
wsl ~
```

Note that you need to name the new Ubuntu something besides "Ubuntu", or "Ubuntu-20.04", etc. These are the names used by the Store installer, and this installation will be "separate" from that. It's better to not "confuse" the Store installers if you do ever run them again (on purpose or accidentally).

- From within this Ubuntu, all your files should be present, but you'll be `root` instead of your normal user. You need to set the "default" user by:

```
sudo -e /etc/wsl.conf
```

- And add:

```
[user]
default=your_username
```

`your_username` should be the username you were using on Ubuntu on the old laptop.

- Now exit
- And restart WSL, and you should be back to normal

Let me know how that works out for you, and I'll work on adding directions for restoring `docker-desktop-data` as well.

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edited Sep 15, 2022 at 12:50

answered Sep 15, 2022 at 2:32

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NotTheDr01ds

14.6k 5 50 76

woow, thanks for all this. I have ran into some issues when it comes to this part # Adjust paths and names below as desired `$env:USERPROFILE\WSL\instances\Ubuntu_WSL2 wsl --import Ubuntu_WSL2 $env:USERPROFILE\WSL\instances\Ubuntu_WSL2 D:\ubuntu.tar --version 2 wsl --set-default Ubuntu_WSL2 wsl ~` i am getting `wsl/error path not found` – **Leo** Sep 15, 2022 at 7:55

i think the issue comes from the fact there is no `WSL\instances\Ubuntu` in my user profile directory – **Leo** Sep 15, 2022 at 9:15

@Leo Sorry, that's my typo! The first line is supposed to be a `mkdir` - I only copied/pasted part of the line, unfortunately. That will create the directory so that the subsequent `--import` command will work. – **NotTheDr01ds** Sep 15, 2022 at 12:52

no worries. i have ran it it has been a little while now, i will let you know once complete :). Thanks again – **Leo** Sep 15, 2022 at 19:40

@Leo Looks like your last comment went onto your question, rather the answer here. Responding down here. It looks like, if your comment is correct, that you mistyped `wsl --set-default Ubuntu_WSL2` (left off the "2")? I thought that might have been my typo again – **NotTheDr01ds** Sep 16, 2022 at 10:49



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Great question - I think I might have a solution.

Here's how to transfer WSL files:



On the **old** PC, make sure your Ubuntu WSL is running and booted. Then, open RUN (just go to start and type run) and type in `\\wsl$\\Ubuntu`



This is where the files for your WSL VM are stored. You can copy all the folders you see there to copy everything across though there might be some issues. I recommend you just copy the contents of `\\wsl$\\Ubuntu\\home\\your-username`, but you can try copying the entire `\\wsl$\\Ubuntu` directory.

Then, on the **new** PC, create a new WSL environment, and copy the files you copied earlier to somewhere in Windows, like `C:\\Users\\yourusername\\Documents`. Afterwards using RUN navigate to `\\wsl$\\Ubuntu`.

If you copied your entire WSL directory, select all the files in `\\wsl$\\Ubuntu` and then paste your copied files from `C:\\Users\\yourusername\\Documents`.

If you just copied your home directory, just navigate to `\\wsl$\\Ubuntu\\home\\username`, delete all the other files and paste your existing files.

Your new and old usernames will need to be the same for this to work.

I hope this helps, *Android776*

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answered Sep 15, 2022 at 0:40



IntegralPilot

48 7

If you want to copy the do a full transfer packages etc., copy the entire `\\wsl$\\Ubuntu` directory.

– **IntegralPilot** Sep 15, 2022 at 0:41

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- 2 Copying the entire filesystem that way just won't work since (a) it runs under `user` permissions, and many critical files require `root` to read them, and (b) permissions and ownership of any files copied this way will be lost, and (c) it would be impossible to properly reconstruct `docker-data-directory` if done this way. – **NotTheDr01ds** Sep 15, 2022 at 2:16
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