

TCP/IP NETWORKING

E2-232 2:1

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P4 Programming VM image download and installation instructions

1. Download the suitable "Release vm image" using the following link

<https://github.com/jafingerhut/p4-guide/blob/master/bin/README-install-troubleshooting.md>

2. Go to 'File' in virtual machine
3. Under 'File' select 'Import Appliances'
4. 'Appliance to import' window will pop up=> select the downloaded vm image (For Example: If the file is in the Downloads path will be C:\Users\Downloads\P4 Tutorial Development 2023-07-01.ova)

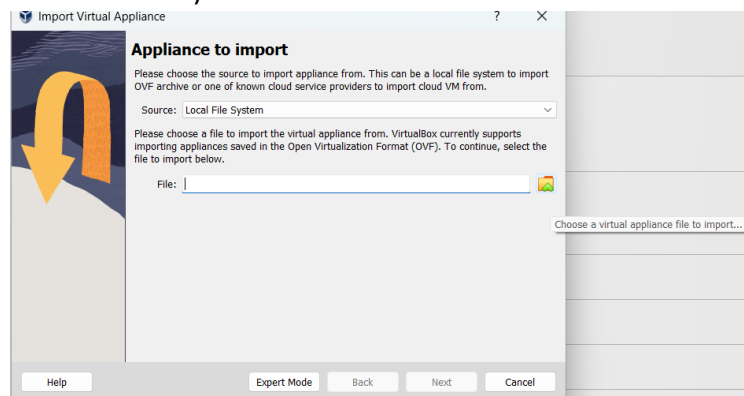


Fig (1)

5. Click 'Next' as shown in the Fig (1)
=> then the "Applications settings" window will pop up, click "finish" as shown in Fig (2)
=> then "software license agreement" window pops up
=> click "agree"=>appliance will be imported

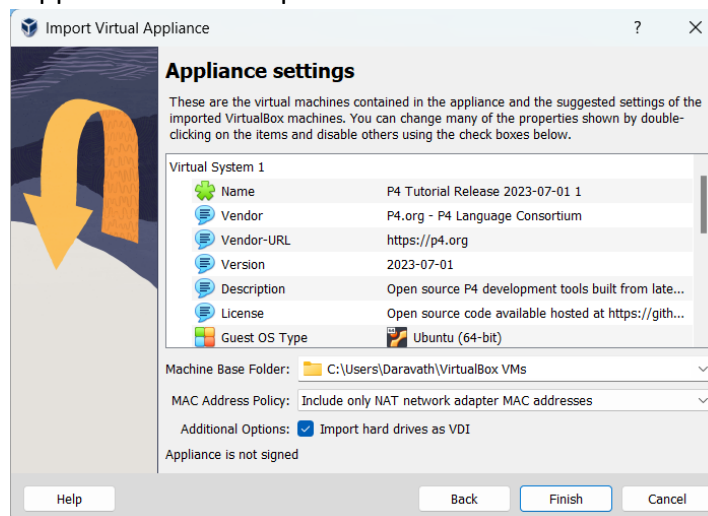


Fig (2)

- "P4 Tutorial Release 2023-07-01" will appear on your VM, select it and then start to PowerUp.

6. Please select P4 as profile and enter the corresponding password:

Profile : **"P4"**

Password : **"p4"**

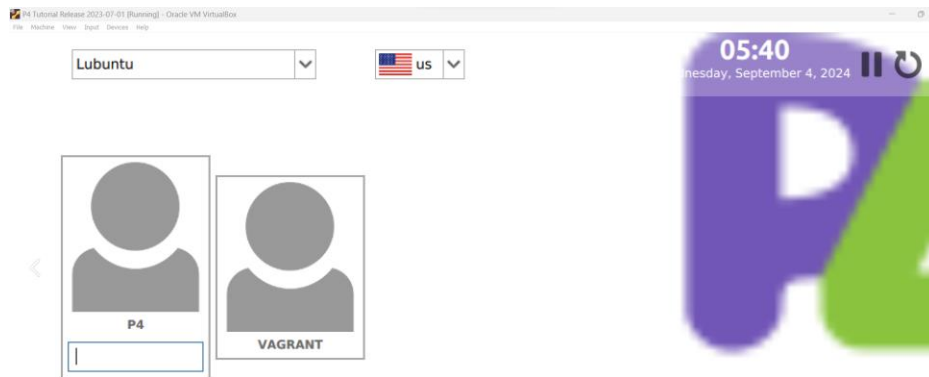


Fig (3)

7. Copy the file "exercise1" from Lab documents and paste it in 'exercises' folder (path of the folder: "home/p4/tutorials/exercises")
8. Open the terminal and follow the steps as given below to run an example p4 code:
- enter "cd tutorials/exercises/ exercise1/" command, to enter into that particular directory
 - then enter "**make run**" command=>to run that example basic p4 code
9. You will now see a Mininet command prompt. Try to ping between hosts in the topology:
- "mininet> h1 ping h2"
 - "mininet> pingall"
10. Then, to stop Mininet: "**make stop**"
11. And to delete all pcaps, build files, and logs: "**make clean**"
12. To know the content of that particular directory, enter "ls" command.

```
p4@p4:~/tutorials/exercises/exercise1$ ls
exercise1.p4  Makefile  s1-runtime.json  topology.json
```