

INSTITUT UNIVERSITAIRE DES SCIENCES

IUS

Faculté des Sciences et Technologie

FST

Niveau L3 FST

Rapport du TD2 dans le cadre du cours de Reseau 2

Soumis au chargé de Cours Ismael SAINT AMOUR

Préparé par Robaldo BADIO

Date Le 22 Mars 2025

Importation et installation de GNS3 dans VMWorkstation

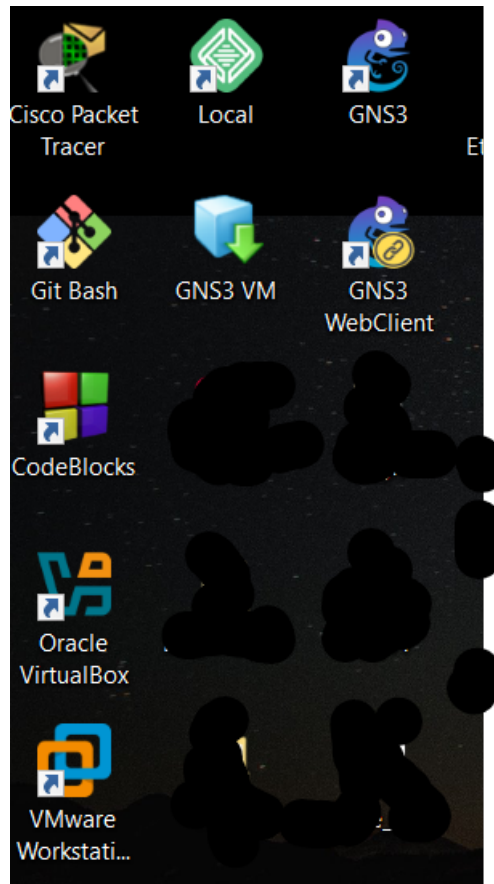


Figure 1: image1

image1

Ajouter les images ISO Cisco:

Reproduction de la Topologie 1 en configurant le Router et les PCs:

image1



Figure 2: image1

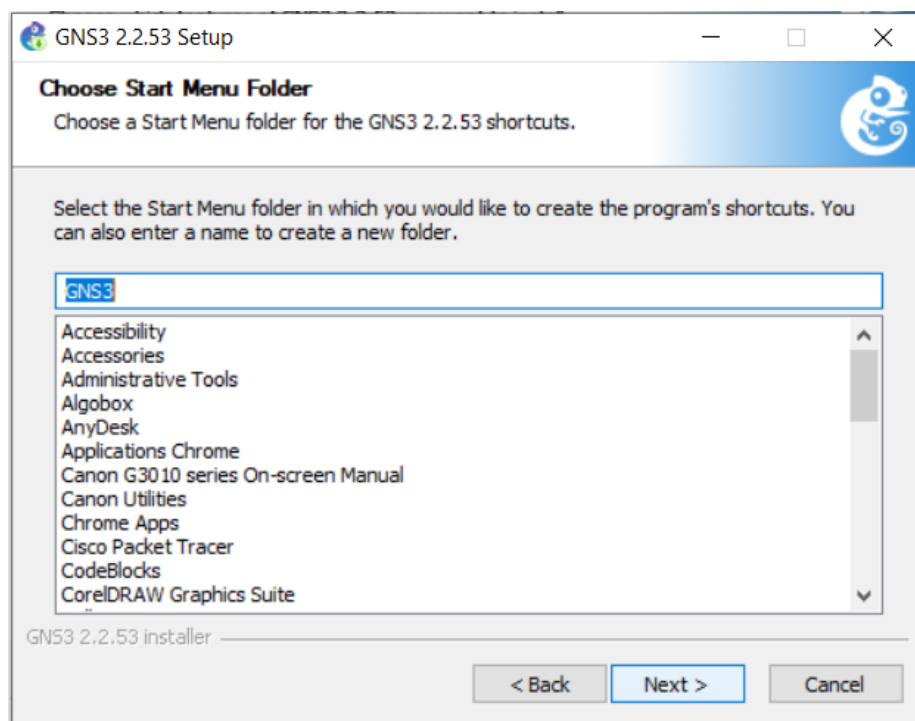


Figure 3: image1

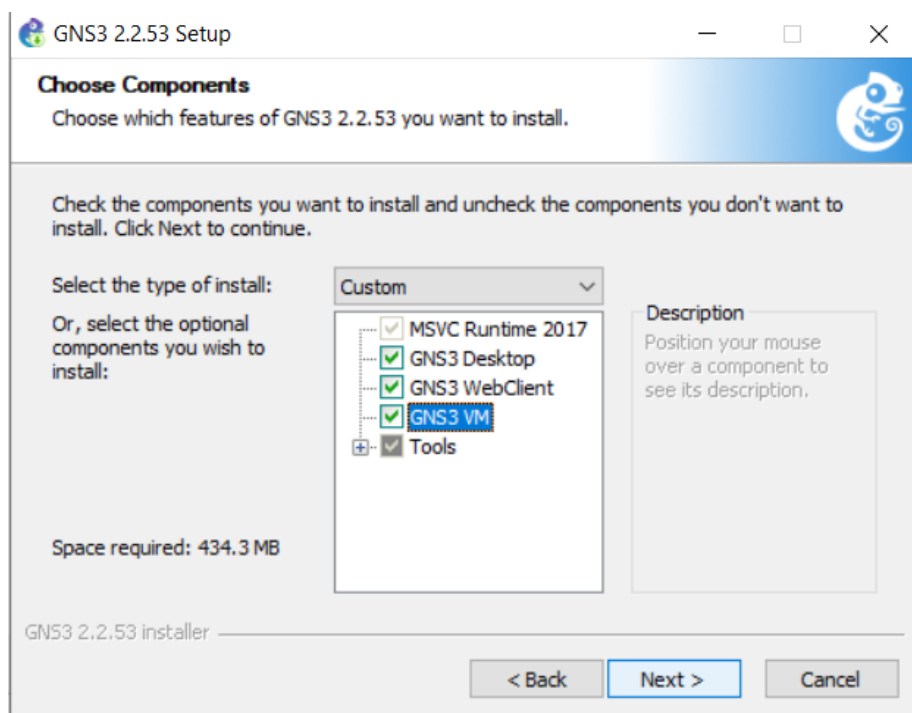


Figure 4: image1

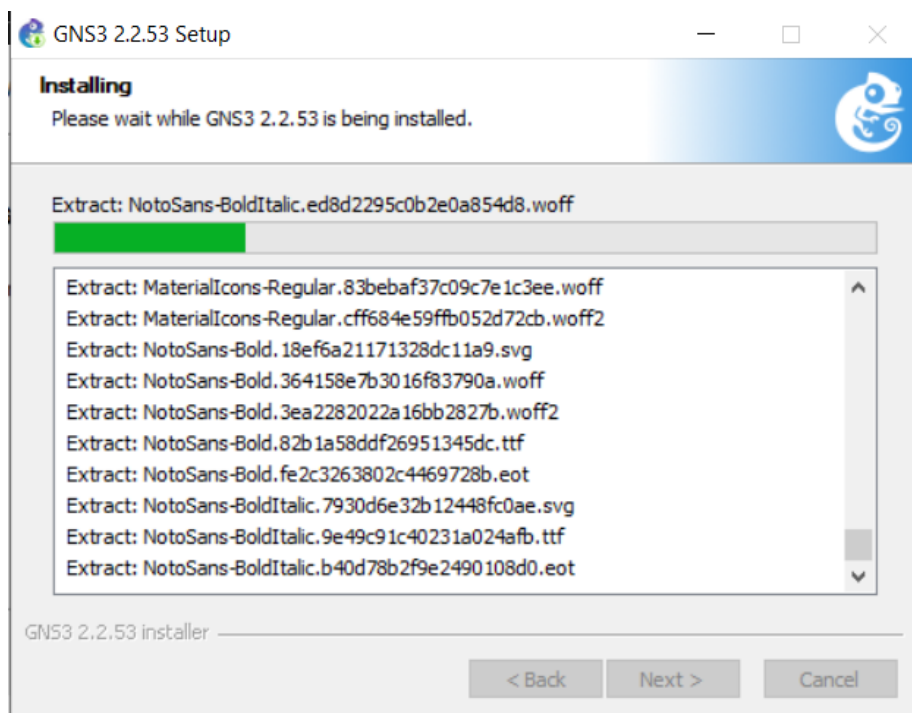


Figure 5: image1

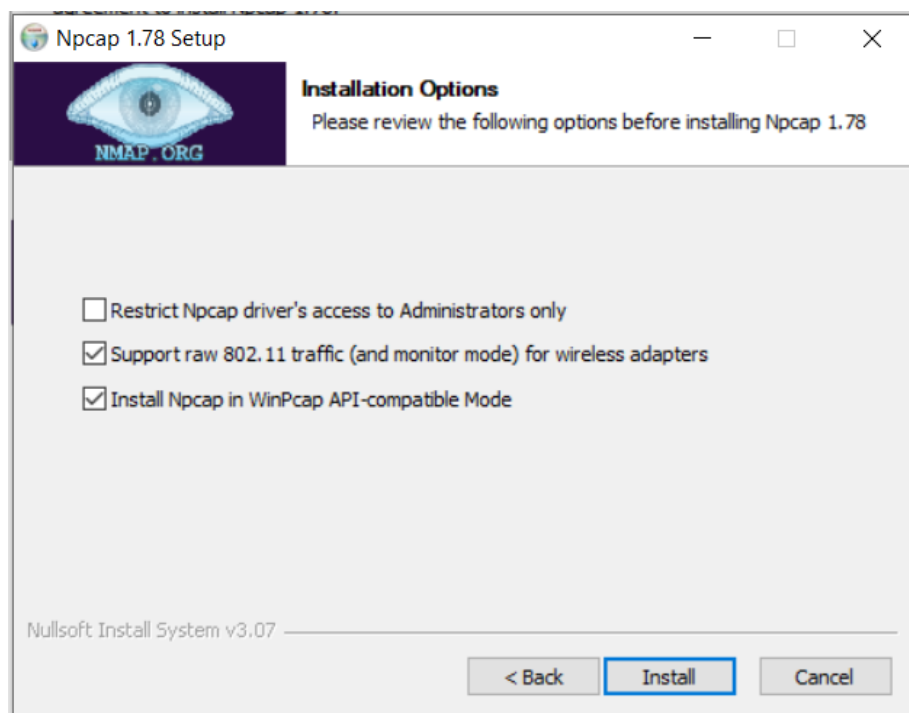


Figure 6: image1

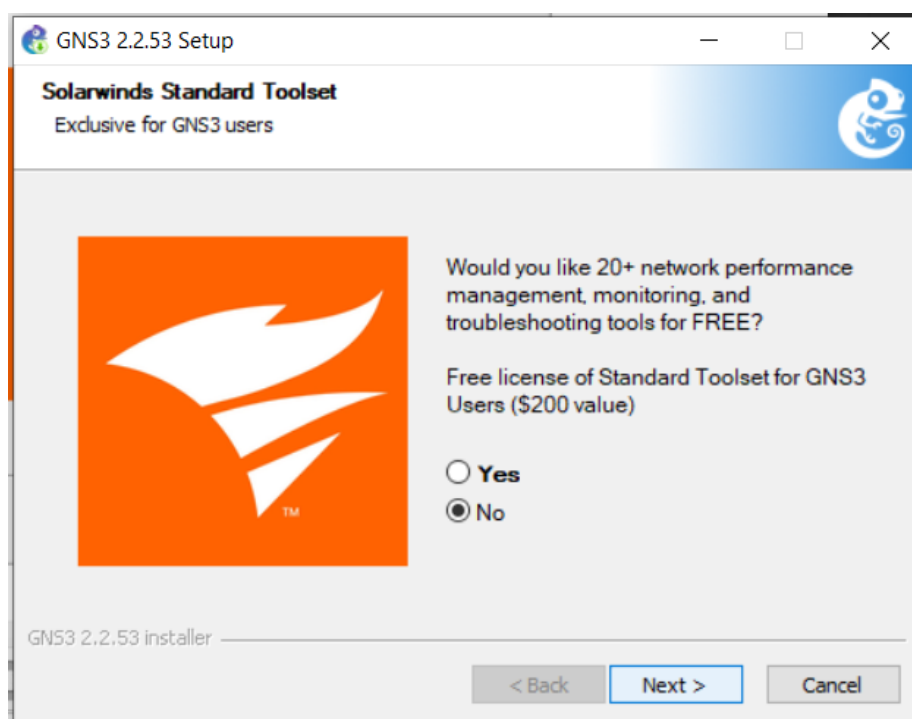


Figure 7: image1

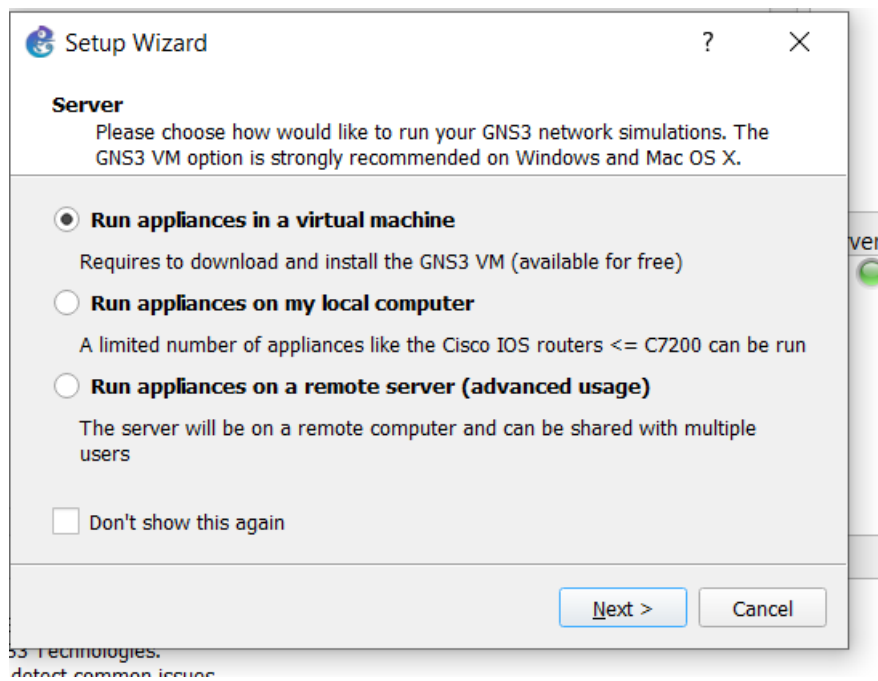


Figure 8: image1

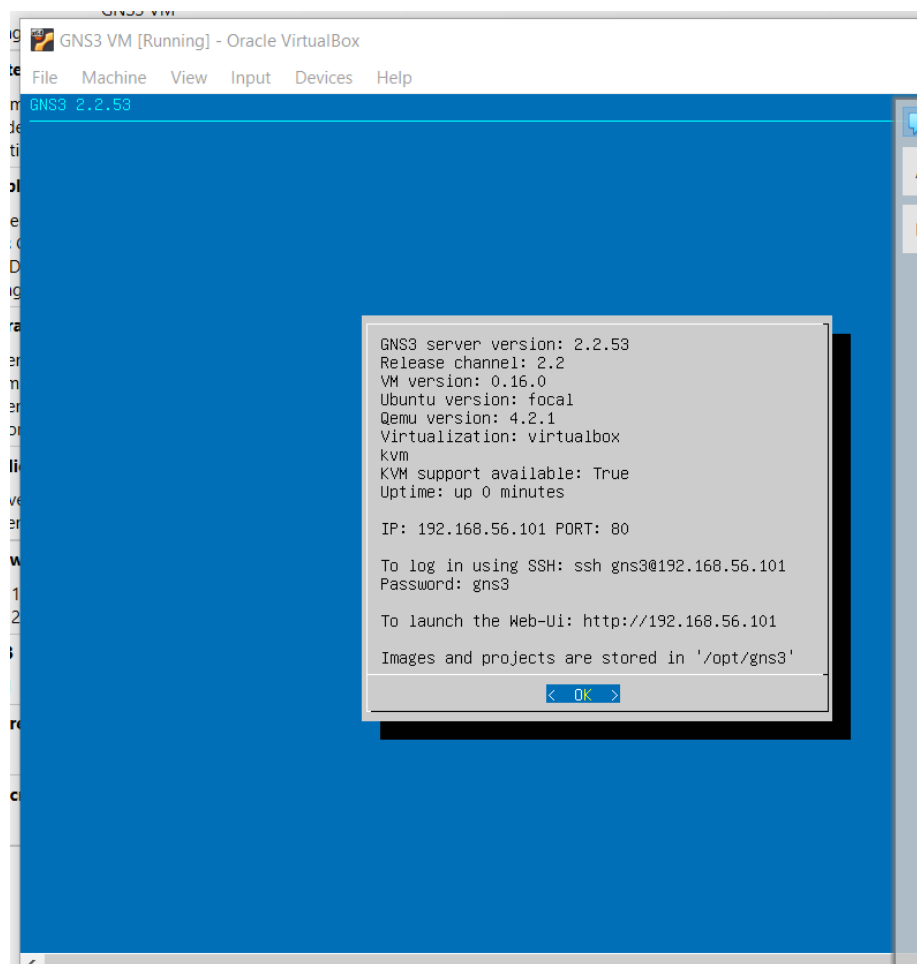


Figure 9: image1

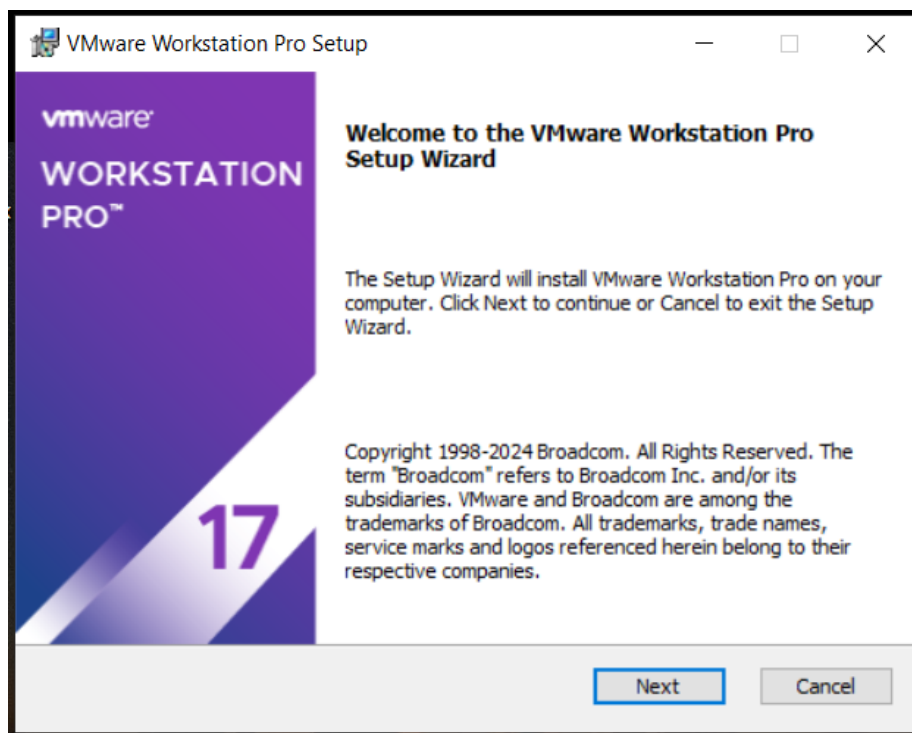


Figure 10: image1

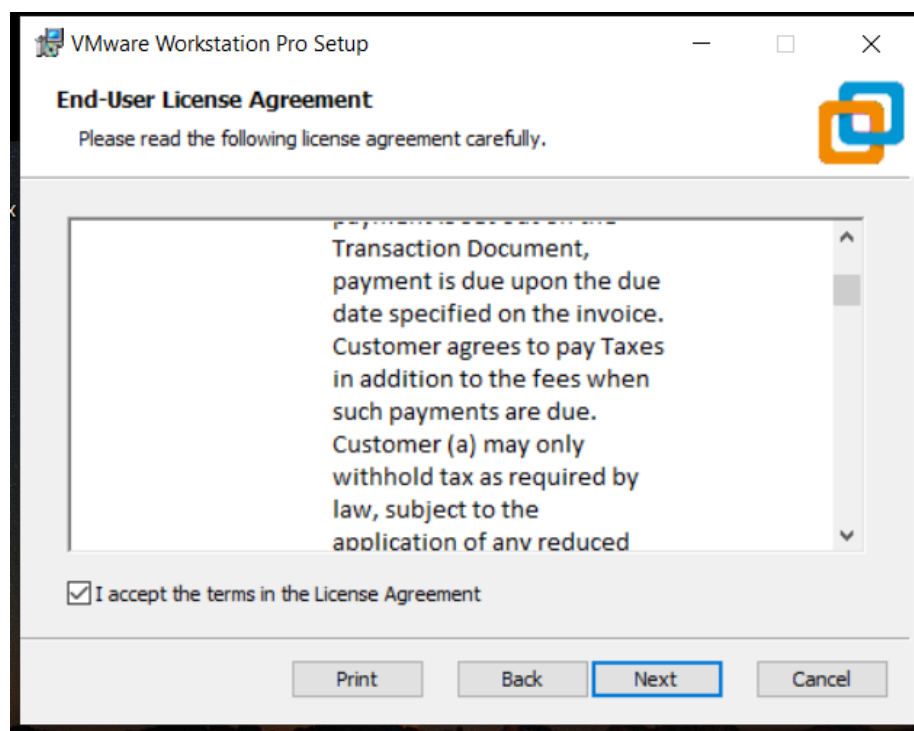


Figure 11: image1

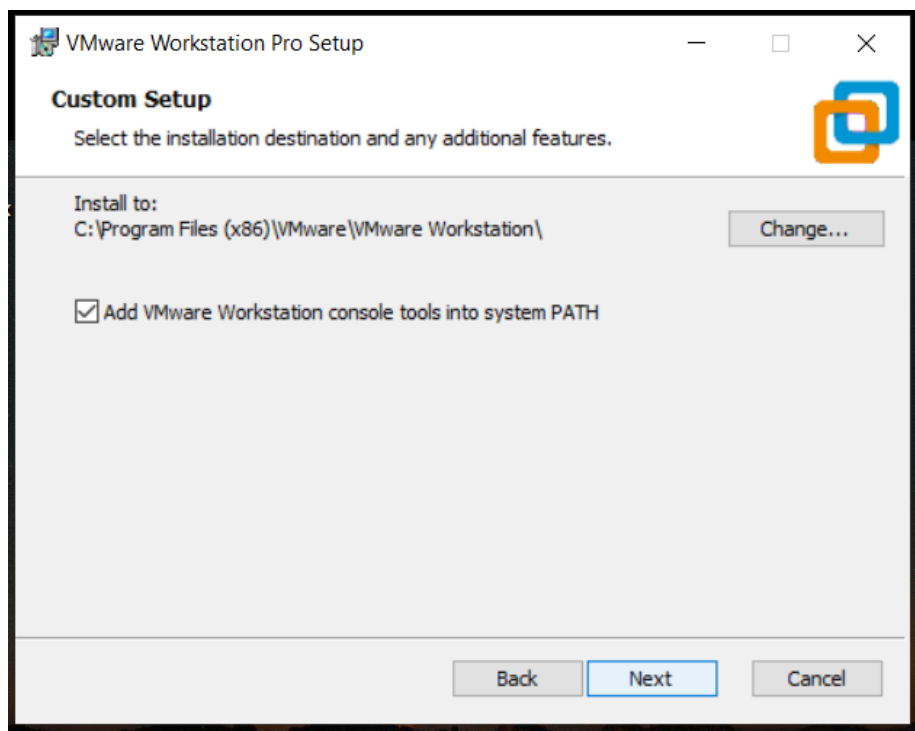


Figure 12: image1

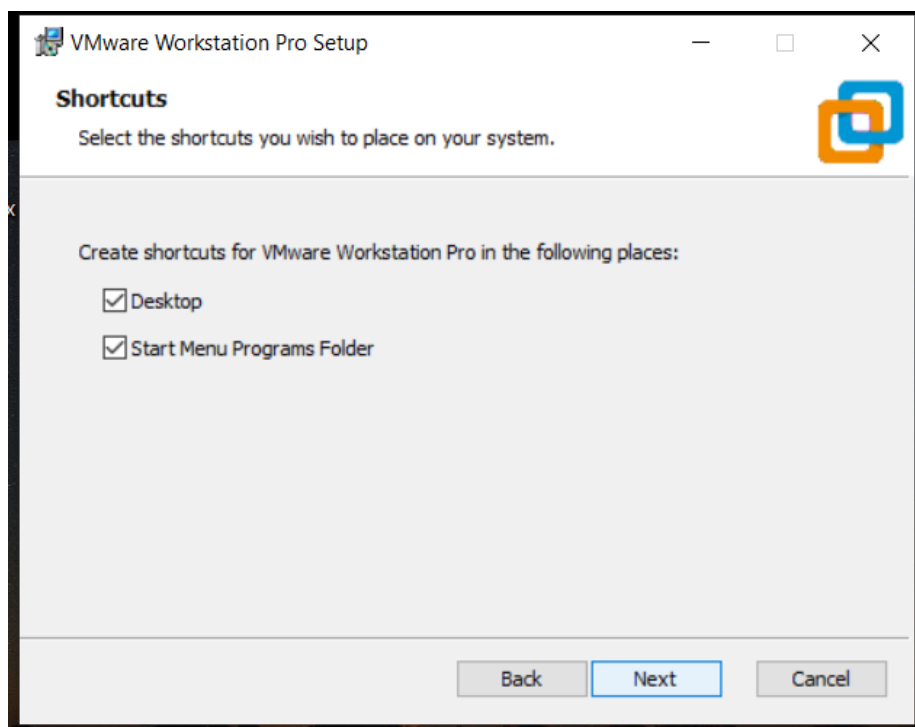


Figure 13: image1

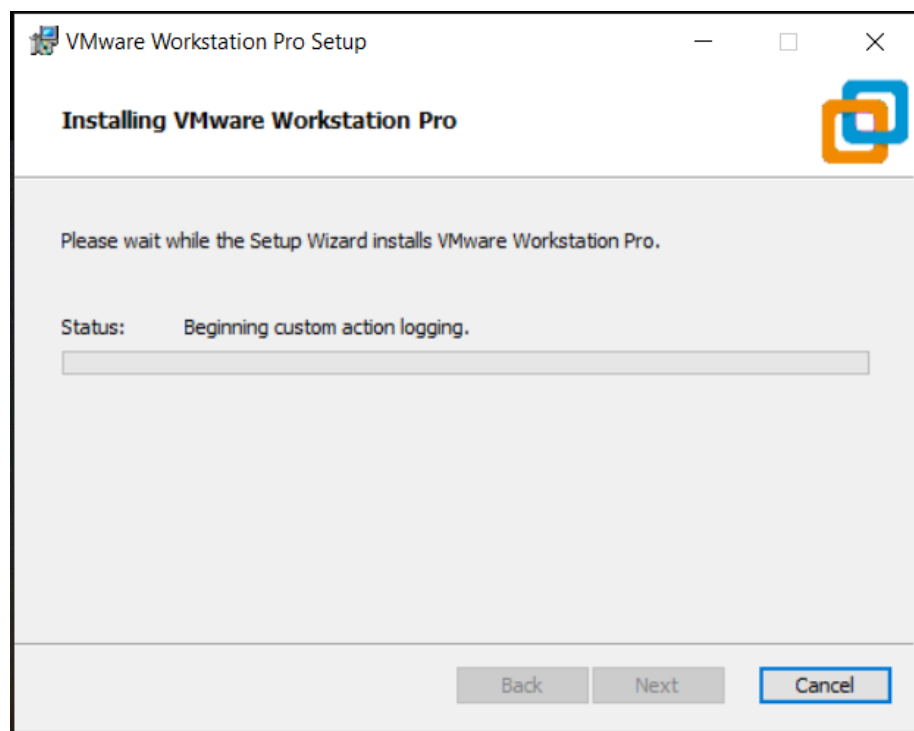


Figure 14: image1

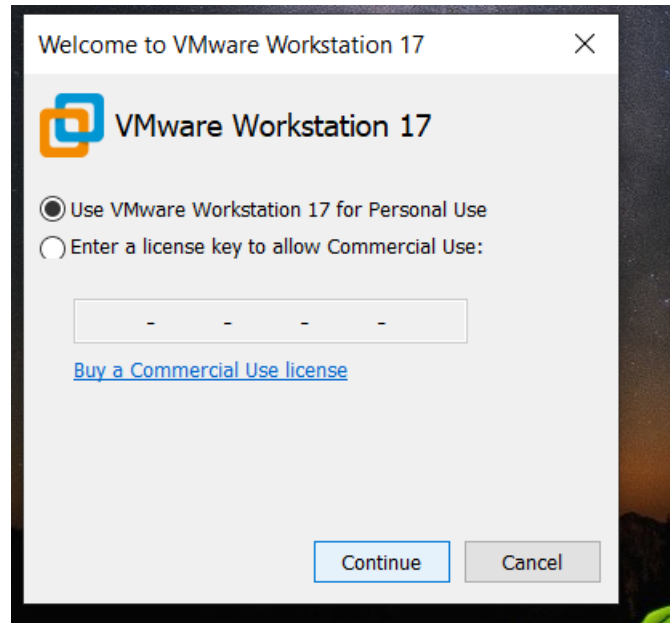


Figure 15: image1

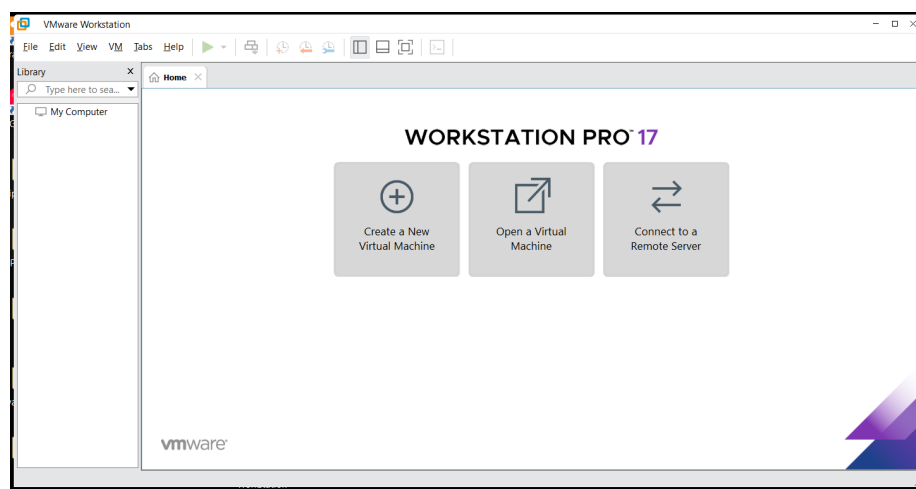


Figure 16: image1

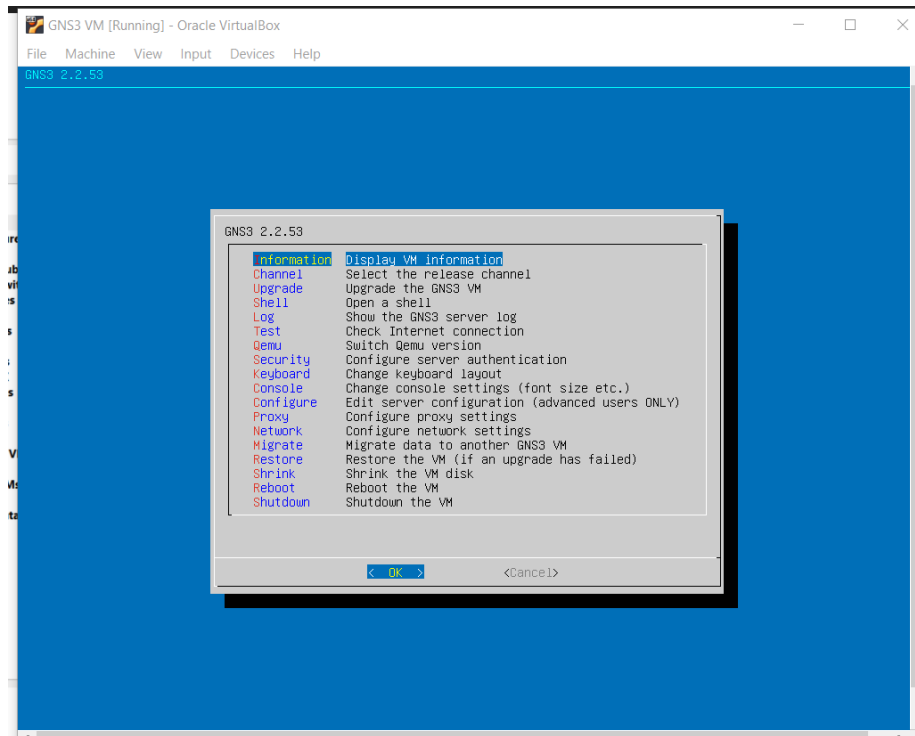


Figure 17: image1

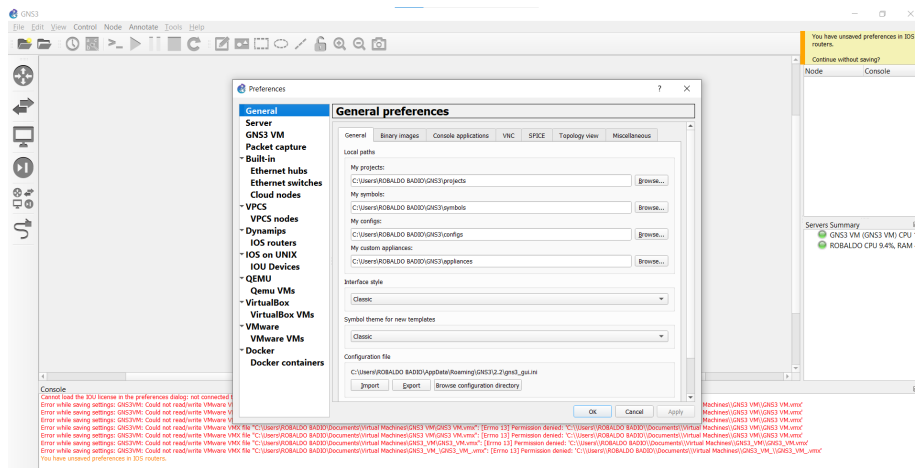


Figure 18: image1

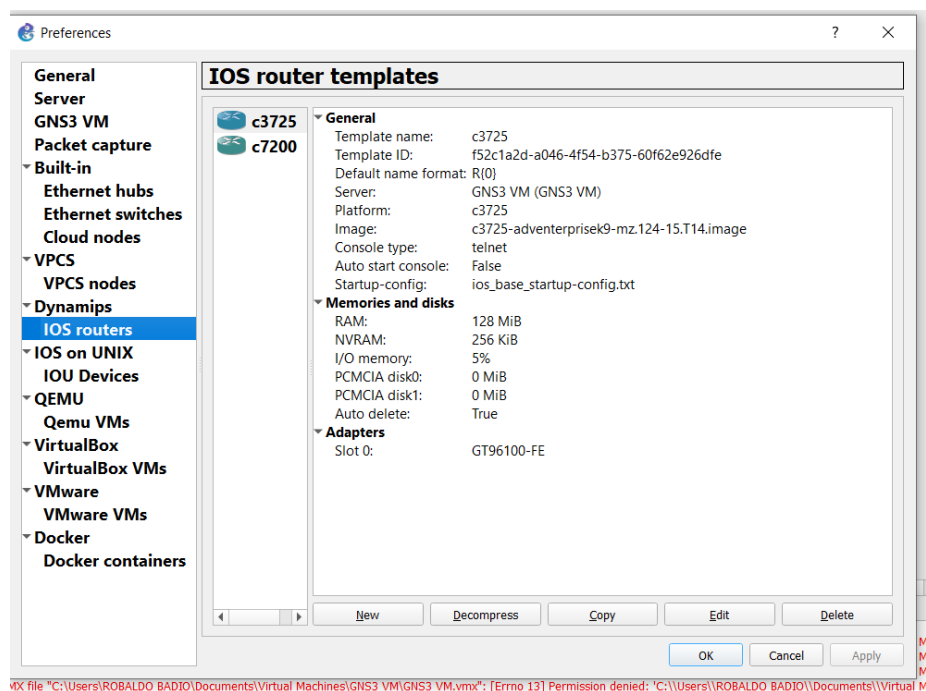


Figure 19: image1

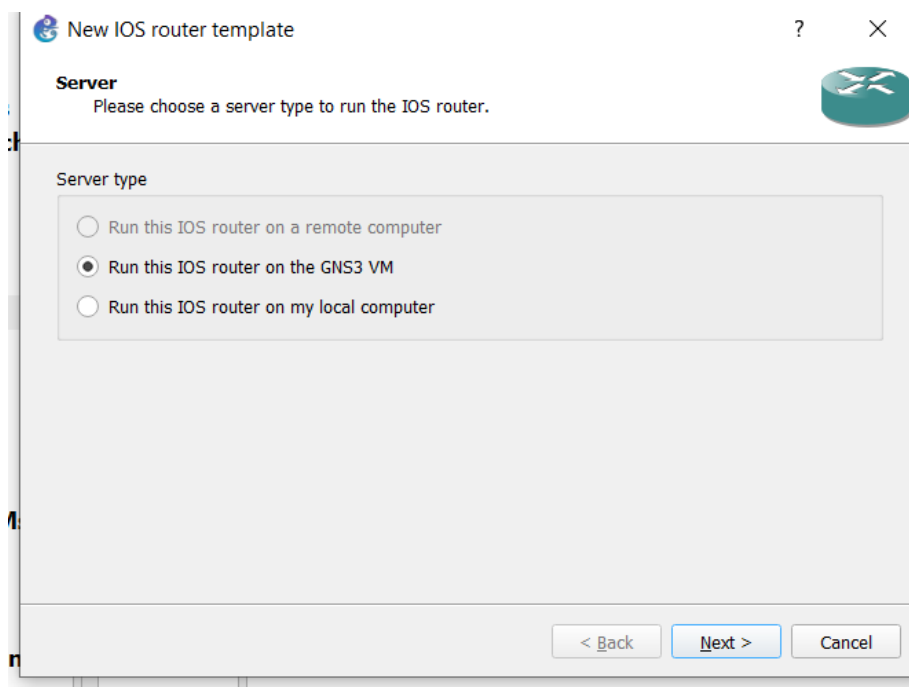


Figure 20: image1

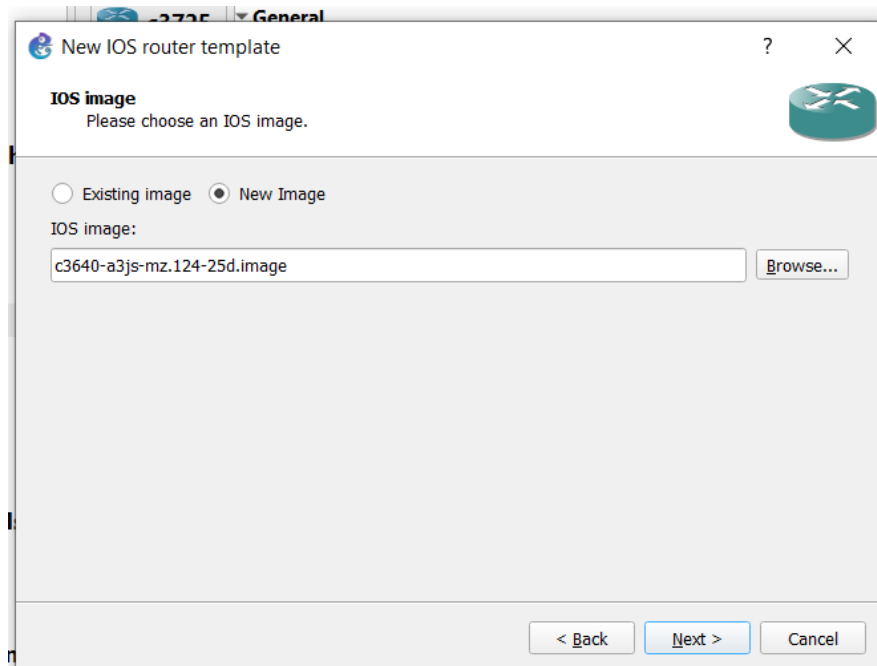


Figure 21: image1

```

changed state to up
*Mar 1 00:00:04.235: %SYS-5-CONFIG_I: Configured from memory by console
*Mar 1 00:00:04.379: %LINK-5-CHANGED: Interface FastEthernet0/0, changed state
to administratively down
*Mar 1 00:00:04.499: %SYS-5-RESTART: System restarted -
Cisco IOS Software, 3700 Software (C3725-ADVENTERPRISEK9-M), Version 12.4(15)T14
, RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2010 by Cisco Systems, Inc.
Compiled Tue 17-Aug-10 12:08 by prod_rel_team
*Mar 1 00:00:04.507: %SNMP-5-COLDSTART: SNMP agent on host R1 is undergoing a c
old start
*Mar 1 00:00:04.530: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state
to administratively down
*Mar 1 00:00:04.555: %CRYPTO-6-ISAOMP_ON_OFF: ISAOMP is OFF
*Mar 1 00:00:04.559: %CRYPTO-6-GDOI_ON_OFF: GDOI is OFF
*Mar 1 00:00:05.379: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/0, changed state to down
*Mar 1 00:00:05.539: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/1, changed state to down
R1#
R1#enable
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#interface FastEthernet0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
*Mar 1 00:00:14.487: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
*Mar 1 00:00:15.487: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
R1(config-if)#exit
R1#
*Mar 1 00:00:42.487: %SYS-5-CONF16_I: Configured from console by console
R1#write memory
Building configuration...
[OK]
R1#show ip interface brief
^
% Invalid input detected at '^' marker.

R1#show ip interface brief
Interface IP-Address OK? Method Status Protocol
FastEthernet0/0 192.168.1.1 YES manual up up
FastEthernet0/1 unassigned YES unset administratively down down
R1#

```

Figure 22: image1

```
Welcome to Virtual PC Simulator, version 0.8.3
Dedicated to Daling.
Build time: Sep  9 2023 11:15:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.

VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC1>
PC1>
PC1> ip 192.168.1.2 255.255.255.0 192.168.1.1
Checking for duplicate address...
PC1 : 192.168.1.2 255.255.255.0 gateway 192.168.1.1

PC1> show ip

NAME       : PC1[1]
IP/MASK     : 192.168.1.2/24
GATEWAY     : 192.168.1.1
DNS         :
MAC         : 00:50:79:66:68:00
LPORT      : 20008
RHOST:PORT  : 127.0.0.1:20009
MTU         : 1500

PC1> 
```

Figure 23: image1

```
Welcome to Virtual PC Simulator, version 0.8.3
Dedicated to Daling.
Build time: Sep  9 2023 11:15:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.

VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC2> ip 192.168.1.3 255.255.255.0 192.168.1.1
Checking for duplicate address...
PC2 : 192.168.1.3 255.255.255.0 gateway 192.168.1.1

PC2> show ip

NAME      : PC2[1]
IP/MASK    : 192.168.1.3/24
GATEWAY    : 192.168.1.1
DNS        :
MAC        : 00:50:79:66:68:01
LPORT     : 20010
RHOST:PORT : 127.0.0.1:20011
MTU        : 1500

PC2> █
```

Figure 24: image1

Reproduction de la Topologie 2 en configurant le Router et les PCs:

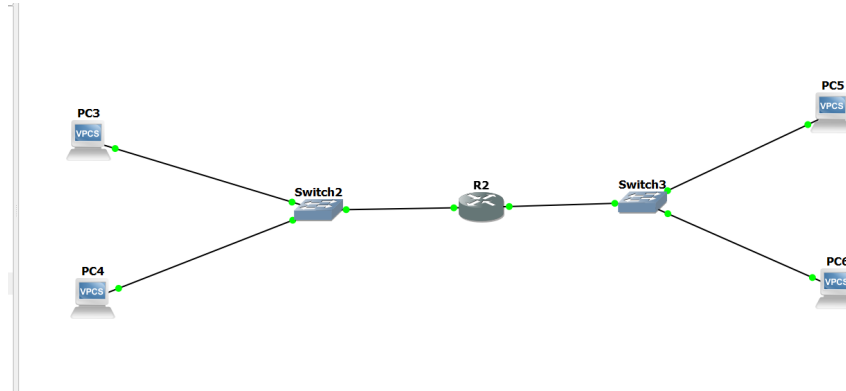


Figure 25: image1

Conclusion

Je peux dire que ce TD m'a permis de maîtriser les étapes essentielles d'importation, d'installation et de configuration de GNS3 dans un environnement VMWorkstation. En reproduisant les topologies réseau et en configurant les routeurs et les PCs, j'ai pu illustrer concrètement les concepts étudiés dans le cours de Réseau 2. Ces expériences renforcent ma compréhension des outils de simulation réseau, tout en offrant une base solide pour des projets futurs.

```
Welcome to Virtual PC Simulator, version 0.8.3
Dedicated to Daling.
Build time: Sep  9 2023 11:15:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.

VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

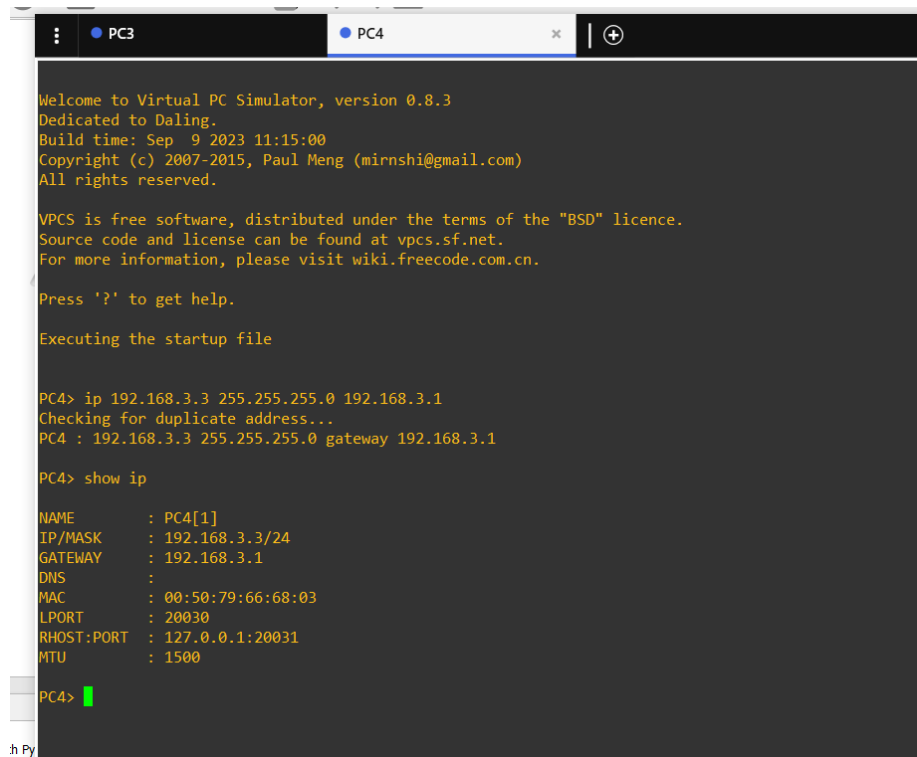
PC3> ip 192.168.3.2 255.255.255.0 192.168.3.1
Checking for duplicate address...
PC3 : 192.168.3.2 255.255.255.0 gateway 192.168.3.1

PC3> show ip

NAME       : PC3[1]
IP/MASK     : 192.168.3.2/24
GATEWAY     : 192.168.3.1
DNS         :
MAC         : 00:50:79:66:68:02
LPORT      : 20028
RHOST:PORT  : 127.0.0.1:20029
MTU         : 1500

PC3> █
```

Figure 26: image1



The image shows a window titled "Virtual PC Simulator" with two tabs: "PC3" and "PC4". The "PC4" tab is active, displaying a terminal window. The terminal output shows the simulator's welcome message, version 0.8.3, and build time. It then shows the execution of the startup file and the configuration of PC4's IP address (192.168.3.3) and gateway (192.168.3.1). Finally, it shows the output of the "show ip" command, which lists the PC's name, IP, gateway, DNS, MAC, LPORT, RHOST:PORT, and MTU.

```
Welcome to Virtual PC Simulator, version 0.8.3
Dedicated to Daling.
Build time: Sep  9 2023 11:15:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.

VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC4> ip 192.168.3.3 255.255.255.0 192.168.3.1
Checking for duplicate address...
PC4 : 192.168.3.3 255.255.255.0 gateway 192.168.3.1

PC4> show ip

NAME      : PC4[1]
IP/MASK    : 192.168.3.3/24
GATEWAY    : 192.168.3.1
DNS        :
MAC        : 00:50:79:66:68:03
LPORT     : 20030
RHOST:PORT : 127.0.0.1:20031
MTU        : 1500

PC4> █
```

Figure 27: image1

```
Welcome to Virtual PC Simulator, version 0.8.3
Dedicated to Daling.
Build time: Sep  9 2023 11:15:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.

VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC5> ip 192.168.4.2 255.255.255.0 192.168.4.1
Checking for duplicate address...
PC5 : 192.168.4.2 255.255.255.0 gateway 192.168.4.1

PC5> show ip

NAME      : PC5[1]
IP/MASK    : 192.168.4.2/24
GATEWAY    : 192.168.4.1
DNS        :
MAC        : 00:50:79:66:68:04
LPORT     : 20032
RHOST:PORT : 127.0.0.1:20033
MTU        : 1500

PC5> 
```

Figure 28: image1

```
Press '?' to get help.

Executing the startup file

PC6> ip 192.168.4.3 255.255.255.0 192.168.4.1
Checking for duplicate address...
PC6 : 192.168.4.3 255.255.255.0 gateway 192.168.4.1

PC6> show ip

NAME      : PC6[1]
IP/MASK    : 192.168.4.3/24
GATEWAY    : 192.168.4.1
DNS        :
MAC        : 00:50:79:66:68:05
LPORT     : 20034
RHOST:PORT : 127.0.0.1:20035
MTU        : 1500

PC6> 
```

Figure 29: image1