

ΑΝΑΦΟΡΑ ΓΙΑ ΤΟ 1^ο ΕΡΓΑΣΤΗΡΙΟ ΣΤΑ ΔΙΚΤΥΑ

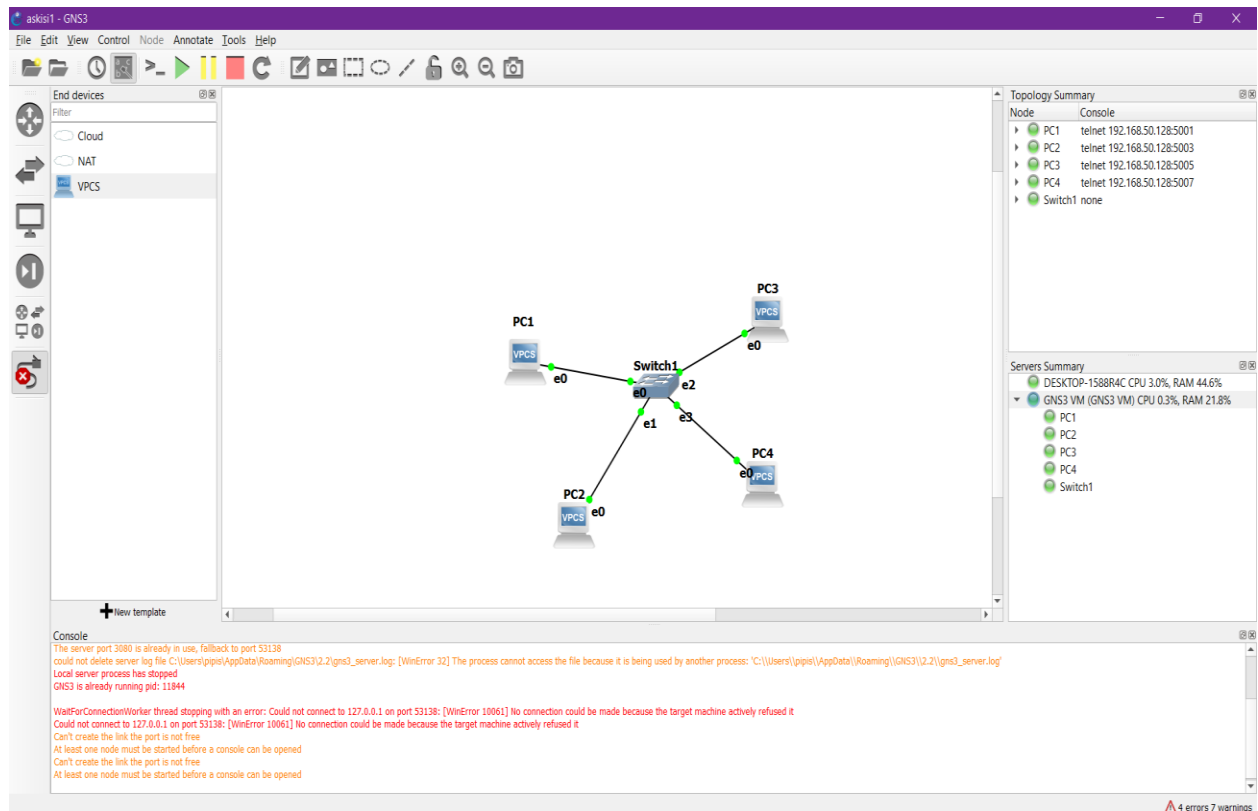
ΥΠΟΛΟΓΙΣΤΩΝ

ΑΜ = 1070263

Ον/μο = ΣΠΥΡΟ ΣΟΥΛΙ

Έτος = 6^ο

Υλοποίηση



Ερώτημα 1^ο

Εκτέλεση της εντολής help στον PC1

```
Welcome to Virtual PC Simulator, version 0.8.2
Dedicated to Daling.
Build time: Aug 23 2021 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> ?

?                Print help
arp              Shortcut for: show arp. Show arp table
clear ARG        Clear IPv4/IPv6, arp/neighbor cache, command history
dhcp [OPTION]    Shortcut for: ip dhcp. Get IPv4 address via DHCP
disconnect       Exit the telnet session (daemon mode)
echo TEXT        Display TEXT in output. See also set echo ?
help             Print help
history          Shortcut for: show history. List the command history
ip ARG ... [OPTION] Configure the current VPC's IP settings. See ip ?
load [FILENAME]  Load the configuration/script from the file FILENAME
ping HOST [OPTION ...] Ping HOST with ICMP (default) or TCP/UDP. See ping ?
quit            Quit program
relay ARG ...    Configure packet relay between UDP ports. See relay ?
rlogin [ip] port Telnet to port on host at ip (relative to host PC)
save [FILENAME]  Save the configuration to the file FILENAME
set ARG ...      Set VPC name and other options. Try set ?
show [ARG ...]   Print the information of VPCs (default). See show ?
sleep [seconds] [TEXT] Print TEXT and pause running script for seconds
trace HOST [OPTION ...] Print the path packets take to network HOST
version          Shortcut for: show version

To get command syntax help, please enter '?' as an argument of the command.

PC1> █
```

Ερώτημα 2ο

Εκτέλεση εντολής ip στον PC2

```
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For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC2> ip

ip ARG ... [OPTION]
Configure the current VPC's IP settings
ARG ...:
  address [mask] [gateway]
  address [gateway] [mask]
    Set the VPC's ip, default gateway ip and network mask
    Default IPv4 mask is /24, IPv6 is /64. Example:
    ip 10.1.1.70/26 10.1.1.65 set the VPC's ip to 10.1.1.70,
    the gateway to 10.1.1.65, the netmask to 255.255.255.192.
    In tap mode, the ip of the tapx is the maximum host ID
    of the subnet. In the example above the tapx ip would be
    10.1.1.126
    mask may be written as /26, 26 or 255.255.255.192
  auto      Attempt to obtain IPv6 address, mask and gateway using SLAAC
  dhcp [OPTION] Attempt to obtain IPv4 address, mask, gateway, DNS via DHCP
    -d      Show DHCP packet decode
    -r      Renew DHCP lease
    -x      Release DHCP lease
  dns ip    Set DNS server ip, delete if ip is '0'
  dns6 ipv6 Set DNS server ipv6, delete if ipv6 is '0'
  domain NAME Set local domain name to NAME

PC2> █
```

Ερώτημα 3^ο

Αναθέτουμε τις εξής ip διευθύνσεις σε κάθε PC

PC1 - 192.168.1.1

PC2 - 192.168.1.2

PC3 - 192.168.1.3

PC4 - 192.168.1.4

PC1

```
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC1> ?

?                Print help
arp              Shortcut for: show arp. Show arp table
clear ARG        Clear IPv4/IPv6, arp/neighbor cache, command history
dhcp [OPTION]    Shortcut for: ip dhcp. Get IPv4 address via DHCP
disconnect       Exit the telnet session (daemon mode)
echo TEXT        Display TEXT in output. See also set echo ?
help            Print help
history          Shortcut for: show history. List the command history
ip ARG ... [OPTION] Configure the current VPC's IP settings. See ip ?
load [FILENAME]  Load the configuration/script from the file FILENAME
ping HOST [OPTION ...] Ping HOST with ICMP (default) or TCP/UDP. See ping ?
quit            Quit program
relay ARG ...    Configure packet relay between UDP ports. See relay ?
rlogin [ip] port Telnet to port on host at ip (relative to host PC)
save [FILENAME]  Save the configuration to the file FILENAME
set ARG ...      Set VPC name and other options. Try set ?
show [ARG ...]   Print the information of VPCs (default). See show ?
sleep [seconds] [TEXT] Print TEXT and pause running script for seconds
trace HOST [OPTION ...] Print the path packets take to network HOST
version          Shortcut for: show version

To get command syntax help, please enter '?' as an argument of the command.

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

PC1> show ip

NAME       : PC1[1]
IP/MASK    : 192.168.1.1/24
GATEWAY    : 255.255.255.0
DNS        :
MAC        : 00:50:79:66:68:00
LPORT     : 20008
RHOST:PORT : 127.0.0.1:20009
MTU        : 1500

PC1> 
```

PC2

```
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  
  
ip ARG ... [OPTION]  
Configure the current VPC's IP settings  
ARG ...:  
address [mask] [gateway]  
address [gateway] [mask]  
Set the VPC's ip, default gateway ip and network mask  
Default IPv4 mask is /24, IPv6 is /64. Example:  
ip 10.1.1.70/26 10.1.1.65 set the VPC's ip to 10.1.1.70,  
the gateway to 10.1.1.65, the netmask to 255.255.255.192.  
In tap mode, the ip of the tapx is the maximum host ID  
of the subnet. In the example above the tapx ip would be  
10.1.1.126  
mask may be written as /26, 26 or 255.255.255.192  
auto Attempt to obtain IPv6 address, mask and gateway using SLAAC  
dhcp [OPTION] Attempt to obtain IPv4 address, mask, gateway, DNS via DHCP  
-d Show DHCP packet decode  
-r Renew DHCP lease  
-x Release DHCP lease  
dns ip Set DNS server ip, delete if ip is '0'  
dns6 ipv6 Set DNS server ipv6, delete if ipv6 is '0'  
domain NAME Set local domain name to NAME  
  
PC2> ip 192.168.1.2 255.255.255.0  
Checking for duplicate address...  
PC2 : 192.168.1.2 255.255.255.0  
  
PC2> show ip  
  
NAME : PC2[1]  
IP/MASK : 192.168.1.2/24  
GATEWAY : 255.255.255.0  
DNS :  
MAC : 00:50:79:66:68:01  
LPORT : 20010  
RHOST:PORT : 127.0.0.1:20011  
MTU : 1500  
  
PC2> █
```

PC3

```
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Press '?' to get help.

Executing the startup file

PC3> ip 192.168.1.3 255.255.255.0
Checking for duplicate address...
PC3 : 192.168.1.3 255.255.255.0

PC3> show ip

NAME       : PC3[1]
IP/MASK    : 192.168.1.3/24
GATEWAY    : 255.255.255.0
DNS        :
MAC        : 00:50:79:66:68:02
LPORT      : 20012
RHOST:PORT : 127.0.0.1:20013
MTU        : 1500

PC3> █
```

PC4

```
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Press '?' to get help.

Executing the startup file

PC4>
PC4> ip 192.168.1.4 255.255.255.0
Checking for duplicate address...
PC4 : 192.168.1.4 255.255.255.0

PC4> show ip

NAME       : PC4[1]
IP/MASK    : 192.168.1.4/24
GATEWAY    : 255.255.255.0
DNS        :
MAC        : 00:50:79:66:68:03
LPORT      : 20014
RHOST:PORT : 127.0.0.1:20015
MTU        : 1500

PC4> █
```

Ερώτημα 4^ο

PC1

Ping με επιτυχία

```
set ARG ...      Set VPC name and other options. Try set ?
show [ARG ...]   Print the information of VPCs (default). See show ?
sleep [seconds] [TEXT] Print TEXT and pause running script for seconds
trace HOST [OPTION ...] Print the path packets take to network HOST
version          Shortcut for: show version
```

To get command syntax help, please enter '?' as an argument of the command.

```
PC1> ip 192.168.1.1 255.255.255.0
```

```
Checking for duplicate address...
```

```
PC1 : 192.168.1.1 255.255.255.0
```

```
PC1> show ip
```

```
NAME      : PC1[1]
IP/MASK    : 192.168.1.1/24
GATEWAY    : 255.255.255.0
DNS        :
MAC        : 00:50:79:66:68:00
LPORT      : 20008
RHOST:PORT : 127.0.0.1:20009
MTU        : 1500
```

```
PC1> ping 192.168.1.2
```

```
84 bytes from 192.168.1.2 icmp_seq=1 ttl=64 time=0.365 ms
84 bytes from 192.168.1.2 icmp_seq=2 ttl=64 time=0.406 ms
84 bytes from 192.168.1.2 icmp_seq=3 ttl=64 time=0.397 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=64 time=0.367 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=64 time=0.276 ms
```

```
PC1> ping 192.168.1.3
```

```
84 bytes from 192.168.1.3 icmp_seq=1 ttl=64 time=0.600 ms
84 bytes from 192.168.1.3 icmp_seq=2 ttl=64 time=0.481 ms
84 bytes from 192.168.1.3 icmp_seq=3 ttl=64 time=0.502 ms
84 bytes from 192.168.1.3 icmp_seq=4 ttl=64 time=0.467 ms
84 bytes from 192.168.1.3 icmp_seq=5 ttl=64 time=0.312 ms
```

```
PC1> ping 192.168.1.4
```

```
84 bytes from 192.168.1.4 icmp_seq=1 ttl=64 time=0.257 ms
84 bytes from 192.168.1.4 icmp_seq=2 ttl=64 time=0.343 ms
84 bytes from 192.168.1.4 icmp_seq=3 ttl=64 time=0.297 ms
84 bytes from 192.168.1.4 icmp_seq=4 ttl=64 time=0.338 ms
84 bytes from 192.168.1.4 icmp_seq=5 ttl=64 time=0.293 ms
```

```
PC1> █
```


PC2

Ping με επιτυχία

```
dhcp [OPTION] Attempt to obtain IPv4 address, mask, gateway, DNS via DHCP
  -d          Show DHCP packet decode
  -r          Renew DHCP lease
  -x          Release DHCP lease
dns ip       Set DNS server ip, delete if ip is '0'
dns6 ipv6    Set DNS server ipv6, delete if ipv6 is '0'
domain NAME  Set local domain name to NAME
```

```
PC2> ip 192.168.1.2 255.255.255.0
Checking for duplicate address...
PC2 : 192.168.1.2 255.255.255.0
```

```
PC2> show ip
```

```
NAME       : PC2[1]
IP/MASK     : 192.168.1.2/24
GATEWAY     : 255.255.255.0
DNS         :
MAC         : 00:50:79:66:68:01
LPORT      : 20010
RHOST:PORT  : 127.0.0.1:20011
MTU         : 1500
```

```
PC2> ping 192.168.1.1
```

```
84 bytes from 192.168.1.1 icmp_seq=1 ttl=64 time=0.184 ms
84 bytes from 192.168.1.1 icmp_seq=2 ttl=64 time=0.266 ms
84 bytes from 192.168.1.1 icmp_seq=3 ttl=64 time=0.163 ms
84 bytes from 192.168.1.1 icmp_seq=4 ttl=64 time=0.180 ms
84 bytes from 192.168.1.1 icmp_seq=5 ttl=64 time=0.172 ms
```

```
PC2> ping 192.168.1.3
```

```
84 bytes from 192.168.1.3 icmp_seq=1 ttl=64 time=0.280 ms
84 bytes from 192.168.1.3 icmp_seq=2 ttl=64 time=0.300 ms
84 bytes from 192.168.1.3 icmp_seq=3 ttl=64 time=0.297 ms
84 bytes from 192.168.1.3 icmp_seq=4 ttl=64 time=0.341 ms
84 bytes from 192.168.1.3 icmp_seq=5 ttl=64 time=0.273 ms
```

```
PC2> ping 192.168.1.4
```

```
84 bytes from 192.168.1.4 icmp_seq=1 ttl=64 time=0.363 ms
84 bytes from 192.168.1.4 icmp_seq=2 ttl=64 time=0.533 ms
84 bytes from 192.168.1.4 icmp_seq=3 ttl=64 time=0.308 ms
84 bytes from 192.168.1.4 icmp_seq=4 ttl=64 time=0.322 ms
84 bytes from 192.168.1.4 icmp_seq=5 ttl=64 time=0.294 ms
```

```
PC2> █
```

PC3

Ping με επιτυχία

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 192.168.1.3 255.255.255.0
Checking for duplicate address...
PC3 : 192.168.1.3 255.255.255.0
```

```
PC3> show ip
```

```
NAME      : PC3[1]
IP/MASK    : 192.168.1.3/24
GATEWAY    : 255.255.255.0
DNS        :
MAC        : 00:50:79:66:68:02
LPORT      : 20012
RHOST:PORT : 127.0.0.1:20013
MTU        : 1500
```

```
PC3> ping 192.168.1.1
```

```
84 bytes from 192.168.1.1 icmp_seq=1 ttl=64 time=0.218 ms
84 bytes from 192.168.1.1 icmp_seq=2 ttl=64 time=0.178 ms
84 bytes from 192.168.1.1 icmp_seq=3 ttl=64 time=0.166 ms
84 bytes from 192.168.1.1 icmp_seq=4 ttl=64 time=0.183 ms
84 bytes from 192.168.1.1 icmp_seq=5 ttl=64 time=0.184 ms
```

```
PC3> ping 192.168.1.2
```

```
84 bytes from 192.168.1.2 icmp_seq=1 ttl=64 time=0.155 ms
84 bytes from 192.168.1.2 icmp_seq=2 ttl=64 time=0.177 ms
84 bytes from 192.168.1.2 icmp_seq=3 ttl=64 time=0.177 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=64 time=0.181 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=64 time=0.181 ms
```

```
PC3> ping 192.168.1.4
```

```
84 bytes from 192.168.1.4 icmp_seq=1 ttl=64 time=0.365 ms
84 bytes from 192.168.1.4 icmp_seq=2 ttl=64 time=0.272 ms
84 bytes from 192.168.1.4 icmp_seq=3 ttl=64 time=0.276 ms
84 bytes from 192.168.1.4 icmp_seq=4 ttl=64 time=0.268 ms
84 bytes from 192.168.1.4 icmp_seq=5 ttl=64 time=0.306 ms
```

```
PC3> █
```

PC4

Ping με επιτυχία

For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC4>

PC4> ip 192.168.1.4 255.255.255.0

Checking for duplicate address...

PC4 : 192.168.1.4 255.255.255.0

PC4> show ip

NAME : PC4[1]
IP/MASK : 192.168.1.4/24
GATEWAY : 255.255.255.0
DNS :
MAC : 00:50:79:66:68:03
LPORT : 20014
RHOST:PORT : 127.0.0.1:20015
MTU : 1500

PC4> ping 192.168.1.1

84 bytes from 192.168.1.1 icmp_seq=1 ttl=64 time=0.296 ms
84 bytes from 192.168.1.1 icmp_seq=2 ttl=64 time=0.298 ms
84 bytes from 192.168.1.1 icmp_seq=3 ttl=64 time=0.297 ms
84 bytes from 192.168.1.1 icmp_seq=4 ttl=64 time=0.288 ms
84 bytes from 192.168.1.1 icmp_seq=5 ttl=64 time=0.305 ms

PC4> ping 192.168.1.2

84 bytes from 192.168.1.2 icmp_seq=1 ttl=64 time=0.243 ms
84 bytes from 192.168.1.2 icmp_seq=2 ttl=64 time=0.264 ms
84 bytes from 192.168.1.2 icmp_seq=3 ttl=64 time=0.226 ms
84 bytes from 192.168.1.2 icmp_seq=4 ttl=64 time=0.279 ms
84 bytes from 192.168.1.2 icmp_seq=5 ttl=64 time=0.322 ms

PC4> ping 192.168.1.3

84 bytes from 192.168.1.3 icmp_seq=1 ttl=64 time=0.165 ms
84 bytes from 192.168.1.3 icmp_seq=2 ttl=64 time=0.179 ms
84 bytes from 192.168.1.3 icmp_seq=3 ttl=64 time=0.181 ms
84 bytes from 192.168.1.3 icmp_seq=4 ttl=64 time=0.151 ms
84 bytes from 192.168.1.3 icmp_seq=5 ttl=64 time=0.199 ms

PC4> █

Τέλος κάνουμε save για να αποθηκευτούν οι ρυθμίσεις μας !

Ευχαριστώ για τον χρόνο σας !