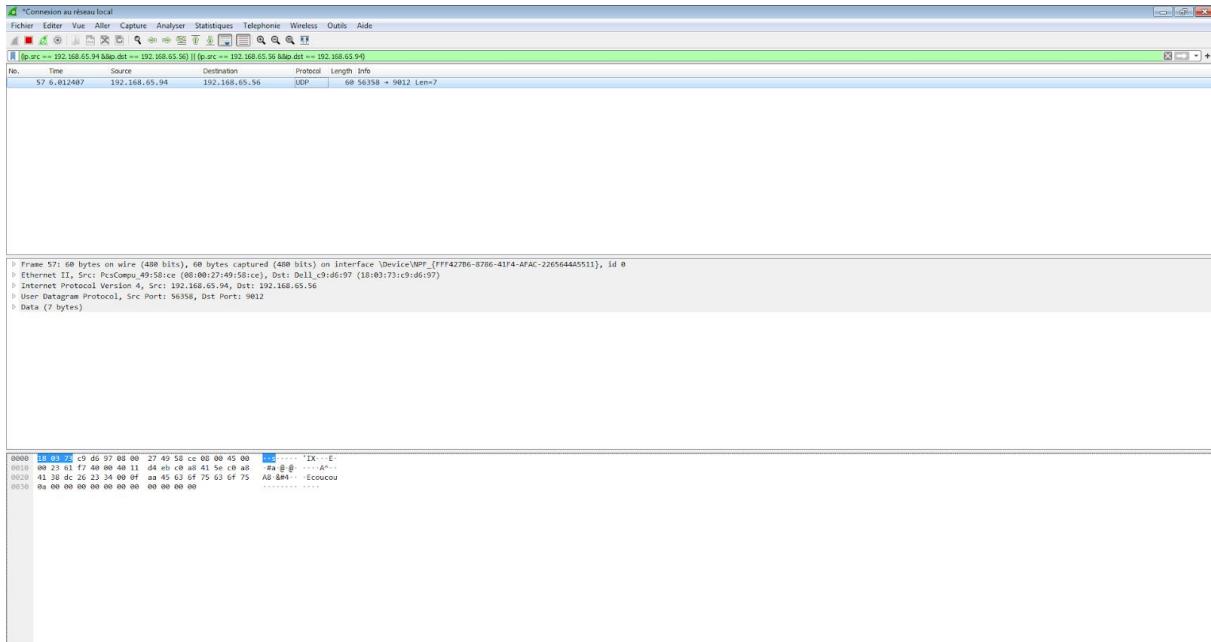


TD PROGRAMMATION RÉSEAU

TD1 maîtrisez les outils réseaux

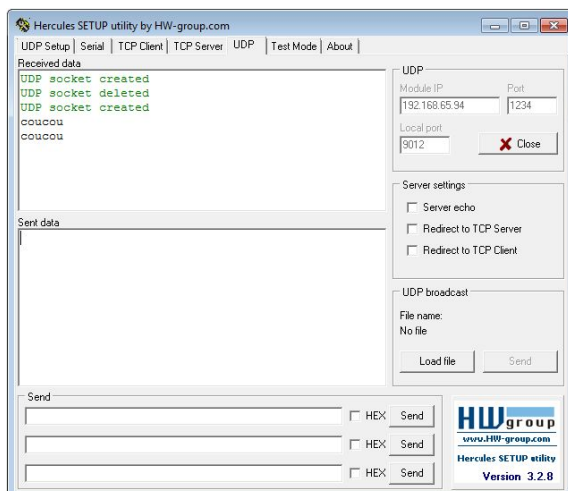
Capture wireshark :



Capture tcpDump :

```
root@osboxes:/# tcpdump -D
1.enp0s3 [Up, Running]
2.any (Pseudo-device that captures on all interfaces) [Up, Running]
3.lo [Up, Running, Loopback]
4.nflog (Linux netfilter log (NFLOG) interface)
5.nfqueue (Linux netfilter queue (NFQUEUE) interface)
6.usbmon1 (USB bus number 1)
root@osboxes:/#
```

Supplément:



```
root@osboxes:/# echo "coucou" >/dev/udp/192.168.65.56/9012
```

Question :pourquoi l'un des ports de la trame n'est pas le 9012 ?

Réponse :

Car c'est pas la même machine

TD2 Premier Programme C++

Exercice 1 : installation

Capture d'écran du lancement de mon programme.

```
root@osboxes:/var/www/html/projetcpp/projetcpp/projetcpp# ./td2
Hello World!
root@osboxes:/var/www/html/projetcpp/projetcpp/projetcpp#
```

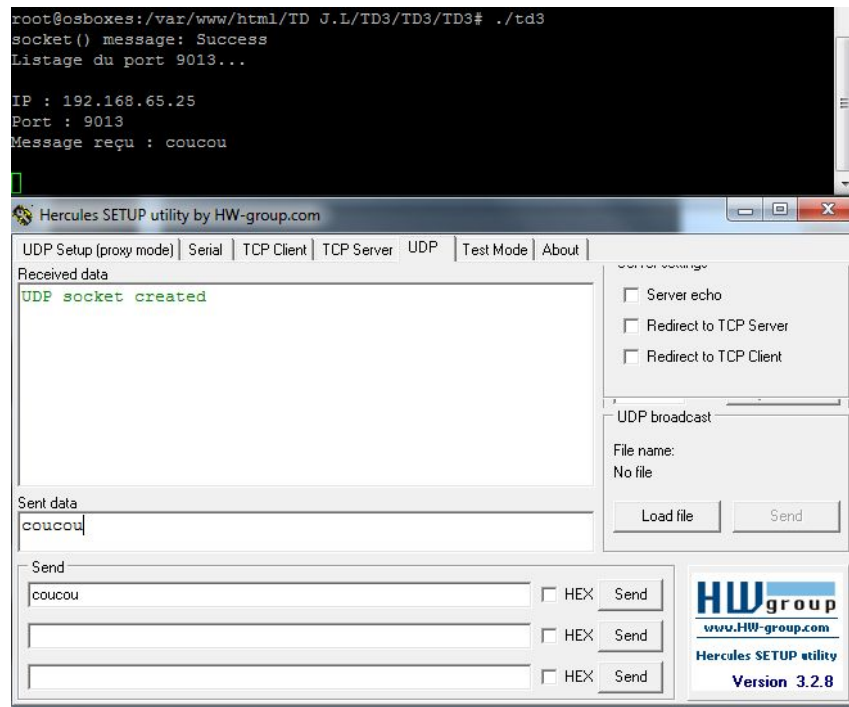
Exercice 2 : Mon premier programme UDP

Capture d'écran Hercules

```
root@osboxes:/var/www/html# ./td2exo2
socket() message: Success
root@osboxes:/var/www/html#
```

```
UDP socket deleted
UDP socket created
coucou je suis un client
```

TD3 Programmation Serveur UDP C++



```
socket() message: Success
Listage du port 9013...

IP : 192.168.65.25
Port : 9013
Message reçu : coucou

fin du programme
root@osboxes:/var/www/html/TD J.L/TD3/TD3/TD3#
```

The image shows a terminal window and the Hercules SETUP utility interface. The terminal window displays the following output:

```
socket() message: Success
Listage du port 9013...

IP : 192.168.65.25
Port : 9013
Message reçu : coucou

fin du programme
root@osboxes:/var/www/html/TD J.L/TD3/TD3/TD3#
```

The Hercules SETUP utility interface is shown below the terminal window. It has a tabbed interface with the following tabs: UDP Setup (proxy mode), Serial, TCP Client, TCP Server, UDP, Test Mode, and About. The UDP tab is selected. The interface includes a "Received data" section with a text area containing "UDP socket created". Below this is a "Sent data" section with a text area containing "coucou". To the right of the "Sent data" section are three checkboxes labeled "HEX" and a "Send" button. The "UDP broadcast" section is also visible, with a "File name:" field containing "No file" and "Load file" and "Send" buttons. The bottom right corner of the window displays the HWgroup logo, the website "www.HW-group.com", and the version "Hercules SETUP utility Version 3.2.8".

TD4 Programmation Serveur TCP C++

```
root@osboxes:/var/www/html/TD J.L/TD4/TD4/TD4# g++ TD4.cpp -o clientTCP -g
root@osboxes:/var/www/html/TD J.L/TD4/TD4/TD4# ./clientTCP
socket() message: Success
```

