Command iw does not find network devices

freric007 4d

Hi everyone

First, all the below commands are working:

鄂啼 sudo lshw -c network

-network

descrição: Ethernet interface

produto: RTL8111/8168/8411 PCI Express Gigabit Ethernet

fabricante: Realtek Semiconductor Co., Ltd.

ID físico: 0

informações do barramento: pci@0000:02:00.0

nome lógico: enp2s0

versão: 11

serial: 70:85:c2:58:41:6d

capacidade: 1Gbit/s

largura: 64 bits clock: 33MHz

capacidades: pm msi pciexpress msix vpd bus_master cap_l configuração: autonegotiation=on broadcast=yes driver=r8 recursos: irq:17 porta de E/S:e000(tamanho=256) memória

-network

descrição: Interface sem fio

ID físico: 1

informações do barramento: usb@1:2.2

nome lógico: wlx503eaa69c293

serial: 50:3e:aa:69:c2:93

capacidades: ethernet physical wireless

configuração: broadcast=yes driver=r8188eu driverversion

0

卿啼 sudo ifconfig

enp2s0: flags=4099<UP,BROADCAST,MULTICAST mtu 1500

ether 7085:c258416d txqueuelen 1000 Ethernet)

RX packets 0 bytes 0 0.0 B

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 0 bytes 0 0.0 B

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING mtu 65536

inet 127.0.0.1 netmask 255.0.0.0

inet6 1 prefixlen 128 scopeid 0 10

loop txqueuelen 1000 Loopback Local)

RX packets 4835 bytes 481264 481.2 KB

RX errors 0 dropped 0 overruns 0 frame 0

TX packets 4835 bytes 481264 481.2 KB

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlx503eaa69c293: flags=4163<UP,BROADCAST,RUNNING,MULTICAST

mtu 1500

inet 192.168.15.7 netmask 255.255.255.0 broadcast 192.168.15.255

inet6 fe804a91:a84b:554a:d8e7 prefixlen 64 scopeid 0 20

inet6 2804431:c7e24c27:bfbb:69e1:ef66374f prefixlen 64 scopeid 00

inet6 2804431:c7e24c278982:dac74ca2:ed7a prefixlen 64 scopeid 0

ether 503e:aa:69:c293 txqueuelen 1000 Ethernet)

RX packets 62182 bytes 53930302 53.9 MB

RX errors 0 dropped 3247 overruns 0 frame 0

TX packets 36330 bytes 7551017 7.5 MB

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

But the command **iw** is not working, it is showing nothing, or it returns no device

sudo iw list

sudo iw dev

sudo iw phy

sudo iw wlx503eaa69c293 info

command failed: No such device 19

Any idea what's going on?

```
ric@oficina-ric:~$
ric@oficina-ric:~$
ric@oficina-ric:~$ sudo iw list
ric@oficina-ric:~$ sudo iw dev
ric@oficina-ric:~$ sudo iw phy
ric@oficina-ric:~$ sudo iw wlx503eaa69c293 info
command failed: No such device (-19)
ric@oficina-ric:~$
```

Solved by freric007 in post #22

Today I changed the wifi adapter based in a filth Realtek to a Qualcomm Atheros AR9227 and the iw command worked fine: iw dev phy#0 Interface wlp2s0 ifindex 3 wdev 0 1 addr c46e:1f:5b:89:bb ssid FREITAS type managed channel 1 2412 MHz), width: 40 MHz, center1 2422 MHz txpower 13.00 dBm multicast TXQ qsz-byt qsz-pkt flows drops marks overlmt hashcol tx-bytes tx-packets 0 0 0 0 0 0 ...

Aravisian 4d

You would need to identify your interface in the command for it to produce output.

I also do not see a wifi device listed under your sudo lshw -C network output.

Is your wifi recognized?

Mr_Magoo 4d

Do you have wireless-tools installed?

Check via: sudo apt search wireless-tools

There's a few references to iw being for unencrypted connections, and iwd for encrypted, but iw works just fine on my WPA3 WiFi.

Have you tried iwconfig?

freric007 4d

Hi Aravisian

Sorry for the inconvenience. The returned message is in Portuguese, so "Interface sem fio" is wireless or wifi interface. sudo Ishw -C network find wlx503eaa69c293, this is my USB wifi adapter.

My wifi is working and connected. As you can see below, I tried the command iwconfig, and it does not translate the returns:: lo no wireless extensions.

enp2s0 no wireless extensions.

wlx503eaa69c293 IEEE 802.11bgn ESSID"FREITAS"

Nickname: "WIFI REALTEK"

Mode: Managed Frequency: 2.412 GHz Access Point: 1CBFCE445BF4

Bit Rate:150 Mb/s Sensitivity:0/0

Retry:off RTS thr:off Fragment thr:off

Power Management:off

Link Quality=27/100 Signal level=-64 dBm Noise level=0 dBm

Rx invalid nwid:0 Rx invalid crypt:0 Rx invalid frag:0

Tx excessive retries:0 Invalid misc:0 Missed beacon:0

```
Terminal - ric@oficina-ric:
                                                                                                              ^ _ D X
 Arquivo Editar Ver Terminal
                             Abas Ajuda
ric@oficina-ric:~$ sudo lshw -C network
[sudo] senha para ric:
  *-network
      descrição: Ethernet interface
      produto: RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller
      fabricante: Realtek Semiconductor Co., Ltd.
      ID físico: 0
      informações do barramento: pci@0000:02:00.0
      nome lógico: enp2s0
      versão: 11
      serial: 70:85:c2:58:41:6d
      capacidade: 1Gbit/s
      largura: 64 bits
      clock: 33MHz
      capacidades: pm msi pciexpress msix vpd bus_master cap_list ethernet physical tp mii 10bt 10bt-fd 100bt-fd
      configuração: autonegotiation=on broadcast=yes driver=r8169 driverversion=5.15.0-69-generic firmware=rtl8168g-2_0
.0.1 02/06/13 latency=0 link=no multicast=yes port=twisted pair
      recursos: irq:17 porta de E/S:e000(tamanho=256) memória:d0604000-d0604fff memória:d0600000-d0603fff
  *-network
       descrição: Interface sem fio
      ID físico: 1
      informações do barramento: usb@1:2.2
      nome lógico: wlx503eaa69c293
       serial: 50:3e:aa:69:c2:93
      capacidades: ethernet physical wireless
      configuração: broadcast=yes <mark>driver=r8188eu</mark> driverversion=5.15.0-69-generic ip=192.168.15.7 multicast=yes wireless
 :IEEE 802.11bgn
 ic@oficina-ric:~$
```

```
ric@oficina-ric:~$ iwconfig
         no wireless extensions.
enp2s0
         no wireless extensions.
wlx503eaa69c293 IEEE 802.11bgn ESSID:"FREITAS" Nickname:"<WIFI@REALTEK>"
         Mode: Managed Frequency: 2.412 GHz Access Point: 1C:BF:CE:44:5B:F4
         Bit Rate:150 Mb/s
                             Sensitivity:0/0
         Retry:off
                     RTS thr:off
                                   Fragment thr:off
         Power Management:off
         Link Quality=27/100 Signal level=-64 dBm Noise level=0 dBm
         Rx invalid nwid:0 Rx invalid crypt:0 Rx invalid frag:0
         Tx excessive retries:0 Invalid misc:0
                                                  Missed beacon:0
```

freric007 4d

Hi Mr_Magoo

Yes, I have wireless-tools and I already tried iwconfig. It is working fine. My issue is with iw.

This is the return from apt search: wireless-tools/focal,now 30~pre9 13ubuntu1 amd64 instalado,automático] I also take a print :

```
Terminal - ric@oficina-ric: ~
                                                                                                             ^ _ D >
 Arquivo Editar Ver Terminal Abas Ajuda
ric@oficina-ric:~$ sudo apt search wireless-tools
[sudo] senha para ric:
A ordenar... Pronto
Pesquisa de texto completa... Pronto
  padcom-sta-dkms/focal-updates,focal-updates,focal-security,focal-security,focal-updates,focal-updates 6.30.223.271-12u
 dkms source for the Broadcom STA Wireless driver
broadcom-sta-source/focal-updates,focal-updates,focal-security,focal-security,focal-updates,focal-updates 6.30.223.271-1
2ubuntu0.1 all
 Fonte para o driver de rede sem fio Broadcom STA
iw/focal,now 5.4-1 amd64 [instalado,automático]
  ferramenta para configuração de dispositivos sem fio no Linux
ocmciautils/focal,now 018-11 amd64 [instalado,automático]
 utilitários PCMCIA para o Linux 2.6
wireless-tools/focal,now 30~pre9-13ubuntu1 amd64 [instalado,automático]
 ferramentas p/ manipular as Extensões Sem-fio do Linux (Linux Wireless Extensions)
ric@oficina-ric:~$ iwconfig
10
         no wireless extensions.
         no wireless extensions.
wlx503eaa69c293 IEEE 802.11bgn ESSID:"FREITAS" Nickname:"<WIFI@REALTEK>"
         Mode:Managed Frequency:2.412 GHz Access Point: 1C:BF:CE:44:5B:F4
          Bit Rate:150 Mb/s Sensitivity:0/0
         Retry:off RTS thr:off Fragment thr:off
         Power Management:off
         Link Quality=27/100 Signal level=-64 dBm Noise level=0 dBm
          Rx invalid nwid:0 Rx invalid crypt:0 Rx invalid frag:0
          Tx excessive retries:0 Invalid misc:0 Missed beacon:0
```

Mr_Magoo 4d

Well, I can't help you with the iw problem, no idea what's going on there...

... but I can tell you that you've got a pretty weak WiFi signal... I can run my laptop's WiFi txpower at: sudo iwconfig wlo1 txpower 1dBm, and I still get: Link Quality=70/70 Signal level=-32 dBm.

The analogous iw command to set the txpower is: sudo iw dev wlo1 set txpower fixed 100

If I increase txpower to maximum: sudo iwconfig wlo1 txpower 20dBm, I get Link Quality=70/70 Signal level=-29 dBm.

The analogous iw command to set the txpower is: sudo iw dev wlo1 set txpower fixed 2000

Does your wireless router have any settings that let you increase its transmit power? If so, crank it up. Same with your computer's WiFi card, if it's got the ability to change txpower.

If you need long-range WiFi, and your wireless router has external antennas, you can build a Cantenna to focus the signal toward your computer. Just unplug one of the antennas and plug in your Cantenna, then aim it toward your computer. I once used two Cantennas (one on the router, one on the computer) to get WiFi 4000 feet from the WiFi router.

Aravisian 4d

freric007

My issue is with iw.

If I may ask:

What is your ultimate goal? What are you trying to achieve? There is a reason you wish to use the iw command and likeMagoo I am not

reason you wish to use the iw command and like Magoo , I am not familiar with much use of it.

But we may be more assistance if we know why you are using the iw command and help to resolve that issue.

freric007 4d

Thanks Mr Magoo

I am far from my wifi router and I don't expect any good signal here. Unfortunately, the device doesnt accept the command but it is ok for me.

sudo iwconfig wlx503eaa69c293 txpower 20dBm Error for wireless request "Set Tx Power" 8B26 SET failed on device wlx503eaa69c293; Operation not permitted.

freric007 4d

Hi Aravisian

I read that iw will replace iwconfig in a near future and iw works fine in my another desktop with Ubuntu. That are the reasons. I believe there is something related to Zorin environment that does not enable iw to find the network devices.

About iw

iw is a new nl80211 based CLI configuration utility for wireless devices. It supports all new drivers that have been added to the kernel recently. The old tool iwconfig, which uses Wireless Extensions interface, is deprecated and it's strongly recommended to switch to iw and nl80211.

The source is here "en:users:documentation:iw Linux Wireless]"

Aravisian 4d

freric007

I read that iw will replace iwconfig in a near future

I feel a bit better, now. 😉

I was getting self-conscious as this is not a command I am well versed with.

luse iwconfig...

Ocka Regular 4d

Not sure if this is help or hindrance I use Core & iw works for me?

Summary

@freric007 Are you using Lite or Core Zorin OS?
It may help us & you telling us your Edition by adding it to your profile .

[HOW TO] Indicate Zorin Edition in profile

Please click the Person Icon outlined in the white square, then click Preferences [profile1] On the left, select Profile [profile2] Then scroll down to Zorin OS Editions [profile3]

freric007 4d

Hi @Ocka

I am using Zorin Lite and my profile is updated now.

Wow, as I can see, iw works on Core.

Ocka Regular 4d

Maybe try installing iw, maybe something happened on install?

sudo apt update

sudo apt install iw

Also maybe a total update/upgrade may solve this?

Mr_Magoo 4d

Found something...

sudo iw list has the following:

Supported commands:

... then it lists the commands supported by the interface... it may be that OP's network cards are older and don't recognize iw commands?

Then there's this:

"Some cards don't support netlink interface to kernel which iw uses. Try using iwconfig(iwconfig ifname txpower pwr) which uses ioctl interface to kernel."

Ocka Regular 4d

@freric007,

With Mr_Magoo's thought. Do you get an output from

man iw

or

iw --help

?

Added: you may now if you've re-installed iw ::

francia 007

10 of 16

Command iw does not find network devices - Hardwa...

freric007 4d

Ocka and Mr_Magoo I did this sequence:

鄂崎 I updated my machine about 12 hours ago and reinstall iw 卿崎 I executed sudo iw list, and it does nothing, even with my onboard network adapter.

```
ric@oficina-ric:~$ sudo apt reinstall iw
Lendo listas de pacotes... Pronto
Construindo árvore de dependências
Lendo informação de estado... Pronto
O pacotes atualizados, O pacotes novos instalados, 1 reinstalados, O a serem removidos e 1 não atualizados.
É preciso baixar 94,0 kB de arquivos.
Depois desta operação, O B adicionais de espaço em disco serão usados.
Obter:1 http://archive.ubuntu.com/ubuntu focal/main amd64 iw amd64 5.4-1 [94,0 kB]
Baixados 94,0 kB em 4s (24,7 kB/s)
(Lendo banco de dados ... 467265 ficheiros e directórios actualmente instalados.)
A preparar para desempacotar .../archives/iw_5.4-1_amd64.deb ...
A descompactar iw (5.4-1) sobre (5.4-1) ..
Configurando iw (5.4-1) ..
A processar 'triggers' para man-db (2.9.1-1) ...
ric@oficina-ric:~$ sudo iw list
ric@oficina-ric:~$ iw --help
Usage: iw [options] command
Options:
        --debug
                        enable netlink debugging
        --version
                        show version (5.4)
Commands:
       dev <devname> ap stop
                Stop AP functionality
        dev <devname> ap start
                <SSID> <control freq> [5|10|20|40|80|80+80|160] [<center1_freq> [<center2_freq>]] <beacon interval in TU</p>
> <DTIM period> [hidden-ssid|zeroed-ssid] head <beacon head in hexadecimal> [tail <beacon tail in hexadecimal>] [inactiv
ity-time <inactivity time in seconds>] [key0:abcde d:1:6162636465]
        phy <phyname> coalesce show
                Show coalesce status.
        phy <phyname> coalesce disable
                Disable coalesce.
        phy <phyname> coalesce enable <config-file>
```

my mother board is :
 Manufacturer: ASRock

Year: 2014

Product Name: D1800B ITX

Processor: Intel J1800

Network: Realtek RTL8111GR

from Ispci:

0200.0 Ethernet controller: Realtek Semiconductor Co., Ltd.

RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller (rev 11

and my wifi external card is a TP LINK WN725N, from Isusb:

Bus 001 Device 004 ID 0bda:8179 Realtek Semiconductor Corp.

RTL8188EUS 802.11n Wireless Network Adapter

卿啼 iw --help works normal

р

```
00:00.0 Host bridge: Intel Corporation Atom Processor Z36xxx/Z37xxx Series SoC Transaction Register (rev 0e)
00:02.0 VGA compatible controller: Intel Corporation Atom Processor Z36xxx/Z37xxx Series Graphics & Display (rev 0e)
00:13.0 SATA controller: Intel Corporation Atom Processor E3800 Series SATA AHCI Controller (rev 0e)
00:14.0 USB controller: Intel Corporation Atom Processor Z36xxx/Z37xxx, Celeron N2000 Series USB xHCI (rev 0e)
00:1a.O Encryption controller: Intel Corporation Atom Processor Z36xxx/Z37xxx Series Trusted Execution Engine (rev 0e)
00:1b.0 Audio device: Intel Corporation Atom Processor Z36xxx/Z37xxx Series High Definition Audio Controller (rev 0e)
00:1c.0 PCI bridge: Intel Corporation Atom Processor E3800 Series PCI Express Root Port 1 (rev 0e)
00:1c.1 PCI bridge: Intel Corporation Atom Processor E3800 Series PCI Express Root Port 2 (rev 0e)
00:1c.2 PCI bridge: Intel Corporation Atom Processor E3800 Series PCI Express Root Port 3 (rev 0e)
00:1c.3 PCI bridge: Intel Corporation Atom Processor E3800 Series PCI Express Root Port 4 (rev 0e)
00:1f.0 ISA bridge: Intel Corporation Atom Processor Z36xxx/Z37xxx Series Power Control Unit (rev 0e)
00:1f.3 SMBus: Intel Corporation Atom Processor E3800 Series SMBus Controller (rev 0e)
02:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller (
ric@oficina-ric:~$ lsusb
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 001 Device 005: ID 1a2c:212a China Resource Semico Co., Ltd USB Keyboard
Bus 001 Device 003: ID 275d:0ba6 USB OPTICAL MOUSE
Bus 001 Device 004: ID Obda:8179 Realtek Semiconductor Corp. RTL8188EUS 802.11n Wireless Network Adapter
Bus 001 Device 002: ID 05e3:0608 Genesys Logic, Inc. Hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
 ic@oficina-ric:~$
```

矦喻 I verified the netlink interface

I take the c code from

Monitoring Linux networking state using netlink Oleg Kutkov personal blog

and added include <unistd.h> to remove the warning: implicit declaration of function 'getpid'' message

as explained here Solution of Warning implicit declaration of function 'getpid' in C

and the result was:

New network interface wlx503eaa69c293, state: UP RUNNING

```
close(ta);
netmon.c:66:17: warning: implicit declaration of function 'usleep' [-Wimplicit-function-declaration]
                       usleep(250000);
netmon.c:162:5: error: expected declaration or statement at end of input
 162
           return 0;
ric@oficina-ric:~/Dropbox/linux/usb wifi error/netlink$ ls
compilation.txt netmon.c
ric@oficina-ric:~/Dropbox/linux/usb wifi error/netlink$ gcc netmon.c -o netmon
netmon.c: In function 'main':
netmon.c:163:5: error: expected declaration or statement at end of input
           return 0;
ric@oficina-ric:~/Dropbox/linux/usb wifi error/netlink$ gcc netmon.c -o netmon
ric@oficina-ric:~/Dropbox/linux/usb wifi error/netlink$ ./netmon
New network interface wlx503eaa69c293, state: UP RUNNING
```

Therefore, at this moment, it would not define the problem as the age of the network adapters model.

Mr_Magoo 4d

A similar issue on the same card (with iwd rather than iw): https://bbs.archlinux.org/viewtopic.php?id=271971

https://wiki.archlinux.org/title /Wpa_supplicant#nl80211_driver_not_supported_on_some_hardware

Another similar issue with a Realtek card, and a partial solution:

"iw" and some of its commands do not return any output

linux, wireless-networking, debian, debian-wheezy asked by vaid on 0326AM 08 Mar 16 UTC

... that second issue immediately above is due to Linux using the wrong default driver... ifconfig and iwconfig work, but iw doesn't.

"In case anyone else ends up here .. it looks like the iw command needs the driver to implement the 'cfg80211' interface, and not all of them do."

Be sure the cfg80211 module is loaded: find /lib/modules/\$(uname -r) -type f -name '*.ko*' | grep cfg80211

... that should return something like:

/lib/modules/5.15.0 58-lowlatency/kernel/net/wireless/cfg80211.ko

sudo Ismod | grep cfg80211

... that should return something like: cfg80211 978944 2 rtw88_core,mac80211

... and check which driver the OS is using for your WiFi card via: lsmod | grep rtl

If that doesn't return anything, just do Ismod and search for your WiFi driver.

More information:

GitHub kelebek333rtl8188fu: RTL8188FU



GitHub kelebek333rtl8188fu: RTL8188FU driver for Linux 4.15.x ~ 6.0.x

RTL8188FU driver for Linux 4.15.x 6.0.x. Contribute to kelebek333/rtl8188fu development by creating an account on GitHub.



GitHub lwfingerrtl8188eu: Repository for standalone RTL8188EU driver.

Repository for stand-alone RTL8188EU driver. Contribute to lwfinger/rtl8188eu development by creating an account on GitHub.



How to install RTL8188EUS driver on ubuntu 18.04

networking, drivers, 18.04, kernel asked by Ali Raza on 0723AM 02 Sep 19 UTC



GitHub aircrackngrtl8188eus: RealTek RTL8188eus WiFi driver with monitor...

RealTek RTL8188eus WiFi driver with monitor mode & frame injection support GitHub - aircrack-ng/rtl8188eus: RealTek RTL8188eus WiFi driver with monitor mode & frame injection support

And a driver that uses iw commands:



GitHub quickreflexrtl8188eus: Wifi driver support for rtl8188eu,...

Wifi driver support for rtl8188eu, rtl8188eus and rtl8188etv chips and working under the new linux kernel 5.1.x). GitHub - quickreflex/rtl8188eus: Wifi driver support for rtl8188eu, rtl8188eus a...

O k R I 4d

Command iw does not find network devices - Hardwa...

Ocka Regular

4d

i may have found a bug; clear the terminal first then try

iw list

the bug i get is if i use a iw command & don't clear or hit enter to Zero the terminal (maybe) it will not run iw command.

so after any command output's, although your terminal returns to Zero, i have to hit enter then i get iw dev... etc

This is intermittent, every 2 3 times running iw after any other commands, seems to need this action.

Got me beat what else it could be.

Note: sudo is not needed

ADDED Check you have up to date drivers/firmware, sometimes the wrong driver/etc will stop iw output's,

This may also involve backdating drivers/firmware,

Maybe a kernel/driver compatibility issue << (may help give you all a thought)

Sorry I didn't see your post edits mr_magoo,

Ocka Regular

4d

try

sudo ubuntu-drivers install

reboot

freric007

Ocka

```
I tried:
```

```
ric@oficina-ric:~$ iw list
ric@oficina-ric:~$ sudo ubuntu-drivers install
[sudo] senha para ric:
```

No drivers found for installation.

I am looking into Magoo post. Please, wait for my next reply.

Thanks • Mr_Magoo

These are some tests I did:

find /lib/modules/\$(uname -r) -type f -name '.ko' | grep cfg80211 /lib/modules/5.15.0�69-generic/kernel/net/wireless/cfg80211.ko

sudo lsmod | grep cfg80211 cfg80211 970752 **0** ← zero = no adapter uses

lsmod | grep rtl btrtl 24576 1 hci_uart bluetooth 688128 12 btrtl,btqca,btintel,hci_uart,btbcm,bnep

About your research, only the code from **GitHub - kelebek333/rtl8188fu: RTL8188FU driver for Linux 4.15.x 6.0.x** was enabled to be installed in my machine, but unfortunately, it was made for another chipset variant.

I learned, with all these steps, that the Realtek is not a good manufacturer for Linux and iw is not guilt.

Thanks to you Mr Magoo Ocka and Aravisian

freric007 1d

18 of 19 22/04/2023, 19:3'

Today I changed the wifi adapter based in a filth Realtek to a Qualcomm Atheros AR9227 and the iw command worked fine:

iw dev phy#0 Interface wlp2s0 ifindex 3 wdev 01 addr c4�6e:1f:5b:89:bb ssid FREITAS type managed channel 1 �2412 MHz), width: 40 MHz, center1� 2422 MHz txpower 13.00 dBm multicast TXQ* qsz-byt qsz-pkt flows drops marks overlmt hashcol tx-bytes tx-packets 00000000

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19 of 19 22/04/2023, 19:37