Channel Sniffer/monitor

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1 year ago · Updated

Overview

With the runtest_monitor.sh script you can turn a MK5 into a real-time channel sniffer.

It captures all packets of the selected channel and forwards it over the network as UDP packets to an PC which is running Wireshark. Wireshark has to run on the PC, since the MK5 has no video, mouse and keyboard.

MK5

Start the runtest_monitor.sh on the MK5

```
cd /opt/cohda/test
./runtest_monitor.sh <channel> <IP addr PC> target
```

<channel> is the channel number. The Control Channel in US is 172 in EU it is 180 in EU
<IP addr PC> is the IP address of the PC which is running the Wireshark

For monitoring two channels in parallel runtest_dual_monitor.sh can be used.

```
./runtest_dual_monitor.sh <channel_1> <channel_2> <IP addr PC> target
```

If you don't have root privileges (e.g. logged in as duser) you need to use 'sudo' in front of the commands

Note:

Note:

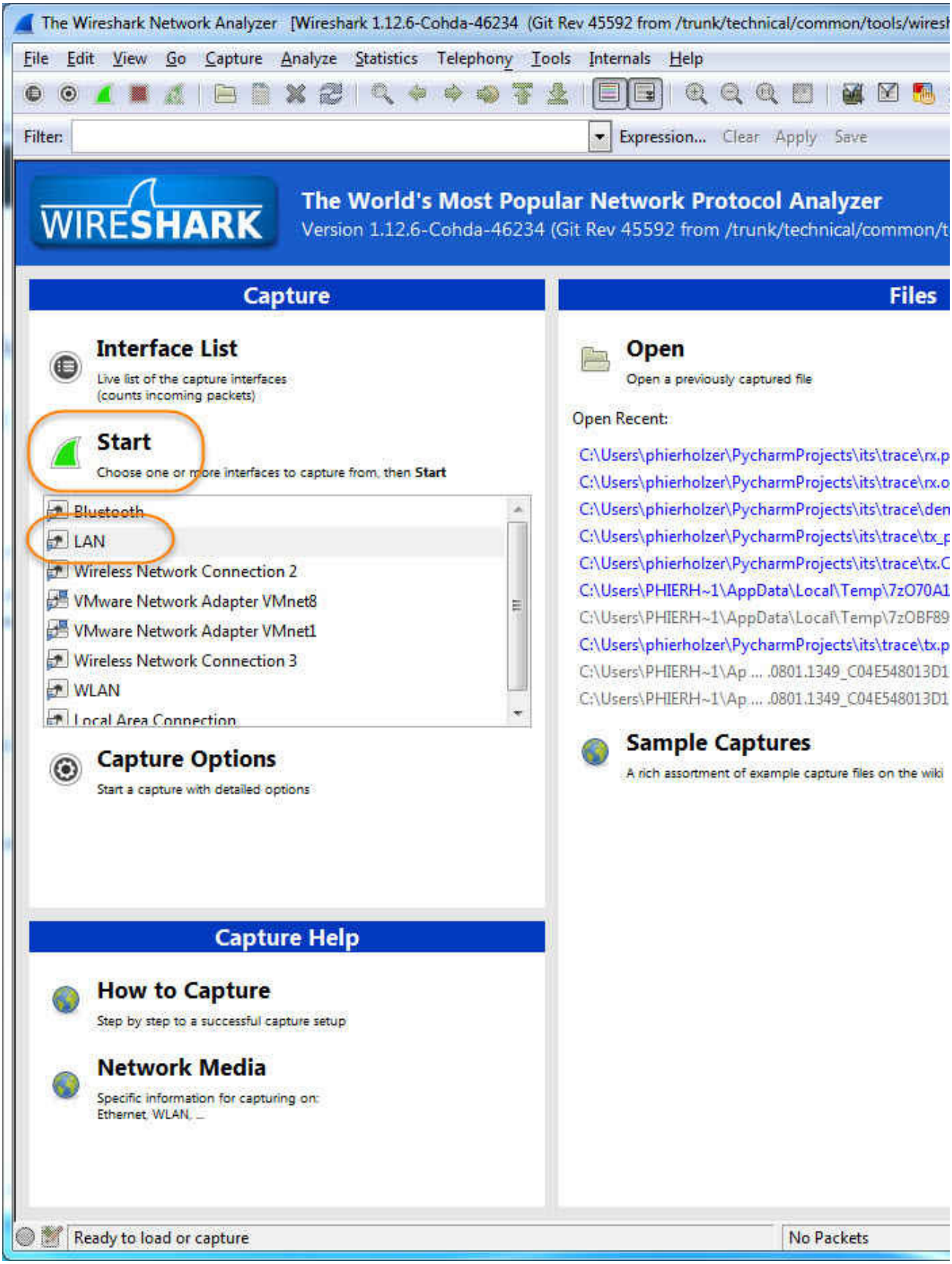
The runtest_monitor script unloads the 1609 stack. It only uses the 1609.4 layer and LLC. For US applications the 1609 stack has to be reloaded by running the command: sudo rc.1609 restart

Console Output

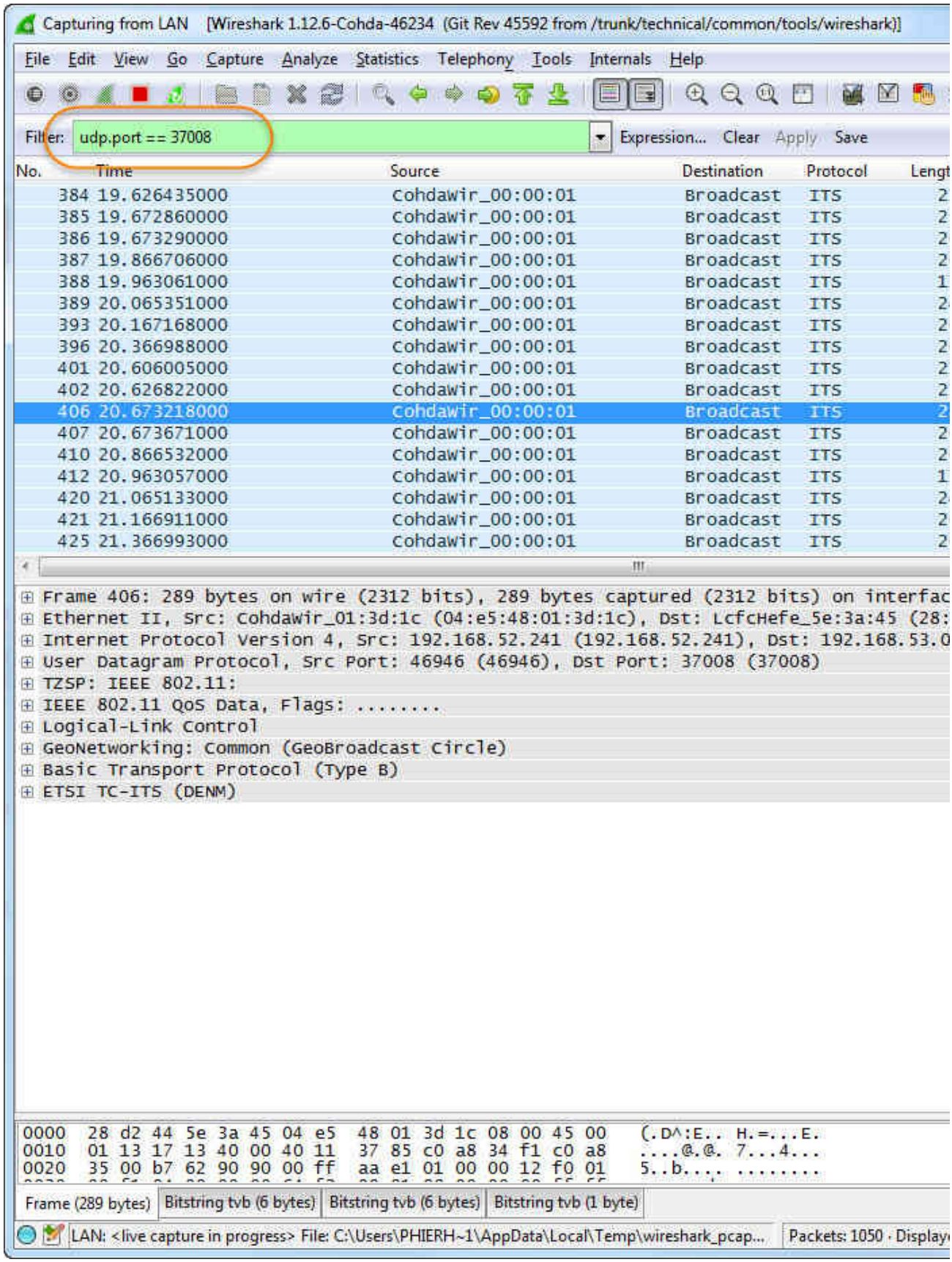
```
root@MK5:~# cd /opt/cohda/test
root@MK5:/opt/cohda/test# ./runtest_monitor.sh 180 192.168.53.0 target
Using: ./runtest_monitor.sh 180 192.168.53.0 target
Interface:          wave-raw
Channel: CCH
Radio: A
ChannelNumber:  180
DefaultMCS:     10
DefaultTxPower: 40
DefaultTRC:     0
DefaultTPC:     0
Bandwidth:      10
DualTxControl:  0
ChannelUtilisationPeriod: 49
TxAntenna:      3
RxAntenna:      3
MACAddr: 00:00:00:00:00:00
Filter:             0x88b6
MAC Address: 00:00:00:00:00:00
  ChannelNumber:  180
  DefaultMCS:     10
  DefaultTxPower: 40
  DefaultTRC:     0
  DefaultTPC:     0
  Bandwidth:      10
  DualTxControl:  0
  ChannelUtilisationPeriod: 49
  TxAntenna:      3
  RxAntenna:      3
  MACAddr: 00:00:00:00:00:00
  Filter:         0x88b6
-r 192.168.53.0
-p 37008
-l 1400
-u 0
-i cw-mon-rxa
-H 0
-t 0x00
```

PC

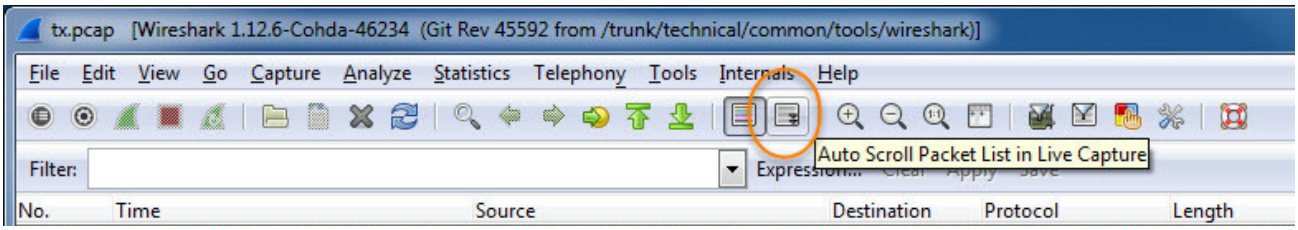
Start the Wireshark on the PC and select the LAN/Ethernet interface



For displaying only DSRC packets add the display filter 'udp.port == 37008'



The received packets are showing in realtime in the Wireshark.



If you want to stop the scrolling click the 'Autoscroll' icon in the icon bar

To obtain TZSP header in the packets

- Check that environment variable "`mon_format`" is 0.

```
sudo fw_printenv mon_format
```

- If it is not 0, set it to 0 and restart radio

```
sudo fw_setenv mon_format 0
sudo sync
sudo rc.1609 restart
```

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