



# TRex Stateless GUI

Information Security Inc.

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# About TRex Stateless GUI

- TRex Stateless GUI application provides a graphical user interface for Trex
- TRex Stateless GUI application is a JavaFX based application



# Testing Environment

- Windows 10 Pro x64

Windows edition

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Windows 10 Pro

System

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Processor:	Intel(R) Core(TM) i7-4910MQ CPU @ 2.90GHz 2.90 GHz
Installed memory (RAM):	4.29 GB
System type:	64-bit Operating System, x64-based processor
Pen and Touch:	No Pen or Touch Input is available for this Display

# Installing TRex Stateless GUI

- Downloading latest release

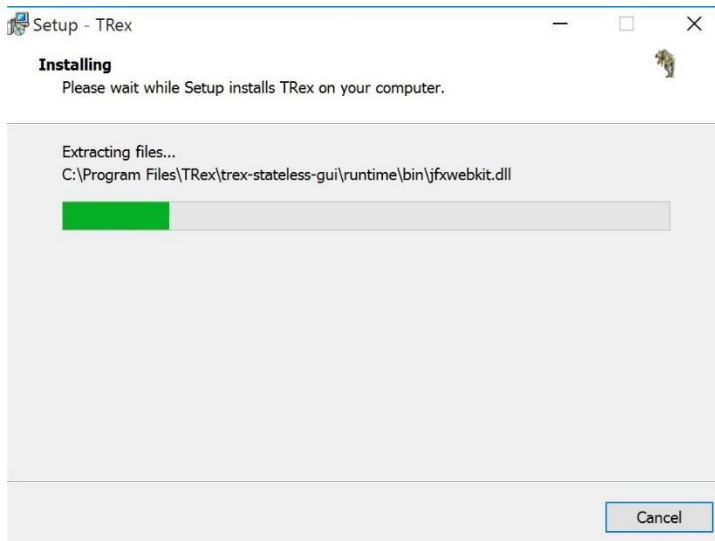
[github.com/cisco-system-traffic-generator/trex-stateless-gui/releases](https://github.com/cisco-system-traffic-generator/trex-stateless-gui/releases)



[trex-stateless-gui-4.2rc.exe](#)

# Installing TRex Stateless GUI

- Installing latest release



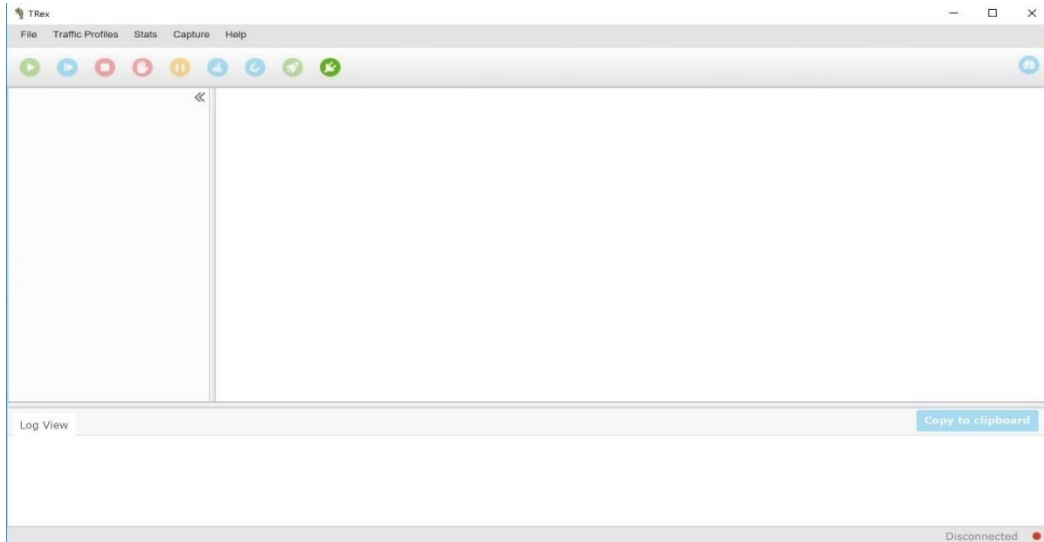
# Using TRex Stateless GUI

- Launching TRex stateless GUI



# Using TRex Stateless GUI

- Launching TRex stateless GUI





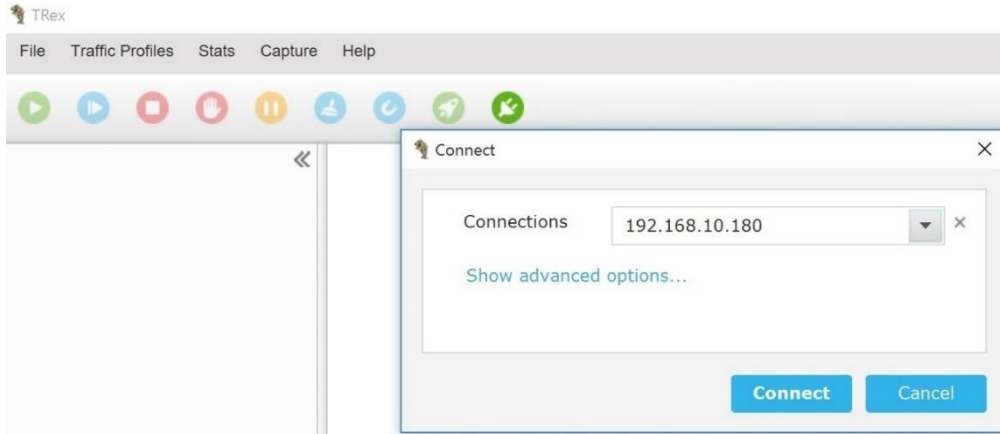
# Using TRex Stateless GUI

- Starting TRex server

```
root@ubuntu:~/trex-core/scripts# ./t-rex-64 -i
Starting Scapy server.... Scapy server is started
Trying to bind to igb_uio ...
/usr/bin/python dpdk_nic_bind.py --bind=igb_uio 0000:02:02.0 0000:02:03.0
The ports are bound/configured.
Starting TRex v2.31 please wait ...
```

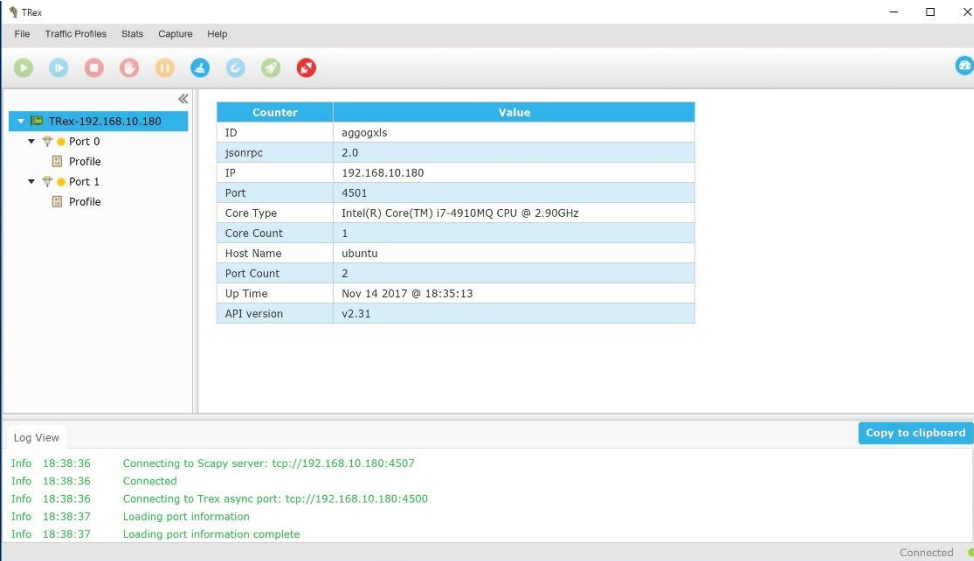
# Using TRex Stateless GUI

- Connecting to TRex server



# Using TRex Stateless GUI

- Connecting to TRex server



The screenshot displays the TRex Stateless GUI interface. The window title is "TRex" and it includes a menu bar with "File", "Traffic Profiles", "Stats", "Capture", and "Help". Below the menu bar is a toolbar with various icons. The main content area is divided into two sections: a left sidebar and a central table.

The left sidebar shows a tree view with the following structure:

- TRex-192.168.10.180
  - Port 0
    - Profile
  - Port 1
    - Profile

The central table displays system statistics:

Counter	Value
ID	aggogxli
jsonrpc	2.0
IP	192.168.10.180
Port	4501
Core Type	Intel(R) Core(TM) i7-4910MQ CPU @ 2.90GHz
Core Count	1
Host Name	ubuntu
Port Count	2
Up Time	Nov 14 2017 @ 18:35:13
API version	v2.31

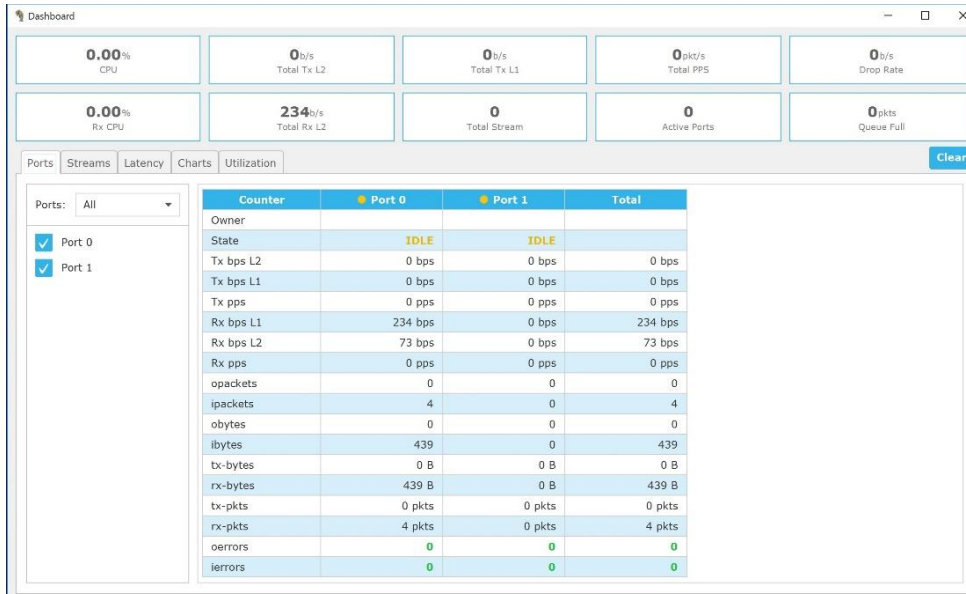
At the bottom of the window, there is a "Log View" section with a "Copy to clipboard" button. The log contains the following entries:

```
Info 18:38:36 Connecting to Scapy server: tcp://192.168.10.180:4507
Info 18:38:36 Connected
Info 18:38:36 Connecting to Trex async port: tcp://192.168.10.180:4500
Info 18:38:37 Loading port information
Info 18:38:37 Loading port information complete
```

The status bar at the bottom right indicates "Connected" with a green dot.

# Using TRex Stateless GUI

- Dashboard



# Using TRex Stateless GUI

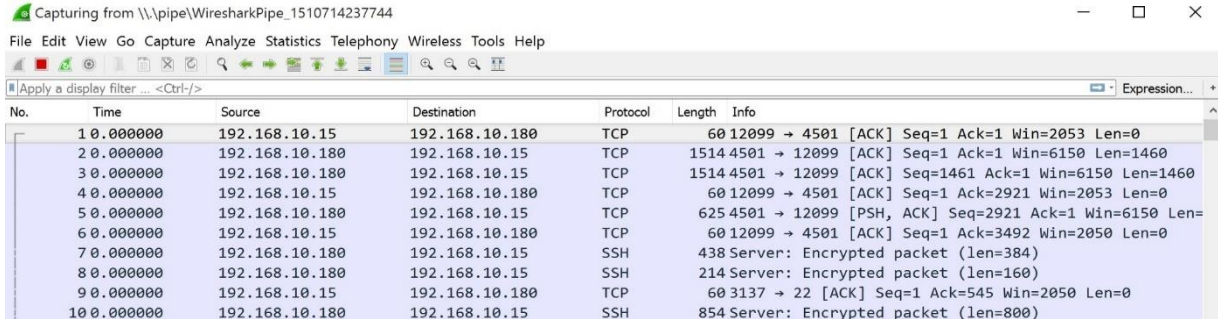
- Packet Capture using TRex GUI

The screenshot shows the 'Packet Capture' window in the TRex Stateless GUI. The window has a title bar with standard OS controls and a toolbar with icons for play, stop, refresh, and a red circle. Below the toolbar are two tabs: 'Monitor' (selected) and 'Recorders'. The 'Monitor' tab contains a configuration area with 'Rx:' and 'Tx:' dropdown menus both set to 'Port 0, Port 1', and a 'Filter (BPF):' text input field. An 'Apply' button is to the right of the filter field. Below the configuration is a table of captured packets.

No.	Time	Port	Mode	Destination	Source	Type	Length	Info
1	0 s.	0	RX	192.168.10.15	192.168.10.180	TCP	150	4501 -> 12099 [ACK, PSH] Seq=1269689499 Win=6150 Ack=45320739 ...
2	0 s.	0	RX	192.168.10.180	192.168.10.15	TCP	187	12099 -> 4501 [ACK, PSH] Seq=45320739 Win=2047 Ack=1269689595 ...
3	0 s.	0	RX	192.168.10.15	192.168.10.180	TCP	756	4501 -> 12099 [ACK, PSH] Seq=1269689595 Win=6150 Ack=45320872 ...
4	0.04 s.	0	RX	192.168.10.180	192.168.10.15	TCP	60	12099 -> 4501 [ACK] Seq=45320872 Win=2053 Ack=1269690297 Len=20
5	0.25 s.	0	RX	192.168.10.15	192.168.10.180	TCP	582	22 -> 3137 [ACK, PSH] Seq=159002690 Win=327 Ack=132178924 Len=20
6	0.25 s.	0	RX	192.168.10.15	192.168.10.180	TCP	182	22 -> 3137 [ACK, PSH] Seq=159003218 Win=327 Ack=132178924 Len=20
7	0.25 s.	0	RX	192.168.10.180	192.168.10.15	TCP	60	3137 -> 22 [ACK] Seq=132178924 Win=2053 Ack=159003346 Len=20
8	0.25 s.	0	RX	192.168.10.15	192.168.10.180	TCP	726	22 -> 3137 [ACK, PSH] Seq=159003346 Win=327 Ack=132178924 Len=20
9	0.25 s.	0	RX	192.168.10.15	192.168.10.180	TCP	544	4500 -> 12104 [ACK, PSH] Seq=1740395214 Win=229 Ack=-139135815...
10	0.25 s.	0	RX	192.168.10.15	192.168.10.180	TCP	202	4500 -> 12104 [ACK, PSH] Seq=1740395704 Win=229 Ack=-139135815...

# Using TRex Stateless GUI

- Packet Capture using Wireshark



Capturing from \\.\pipe\WiresharkPipe\_1510714237744

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/> Expression...

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.10.15	192.168.10.180	TCP	60	12099 → 4501 [ACK] Seq=1 Ack=1 Win=2053 Len=0
2	0.000000	192.168.10.180	192.168.10.15	TCP	1514	4501 → 12099 [ACK] Seq=1 Ack=1 Win=6150 Len=1460
3	0.000000	192.168.10.180	192.168.10.15	TCP	1514	4501 → 12099 [ACK] Seq=1461 Ack=1 Win=6150 Len=1460
4	0.000000	192.168.10.15	192.168.10.180	TCP	60	12099 → 4501 [ACK] Seq=1 Ack=2921 Win=2053 Len=0
5	0.000000	192.168.10.180	192.168.10.15	TCP	625	4501 → 12099 [PSH, ACK] Seq=2921 Ack=1 Win=6150 Len=
6	0.000000	192.168.10.15	192.168.10.180	TCP	60	12099 → 4501 [ACK] Seq=1 Ack=3492 Win=2050 Len=0
7	0.000000	192.168.10.180	192.168.10.15	SSH	438	Server: Encrypted packet (len=384)
8	0.000000	192.168.10.180	192.168.10.15	SSH	214	Server: Encrypted packet (len=160)
9	0.000000	192.168.10.15	192.168.10.180	TCP	60	3137 → 22 [ACK] Seq=1 Ack=545 Win=2050 Len=0
10	0.000000	192.168.10.180	192.168.10.15	SSH	854	Server: Encrypted packet (len=800)

# Using TRex Stateless GUI

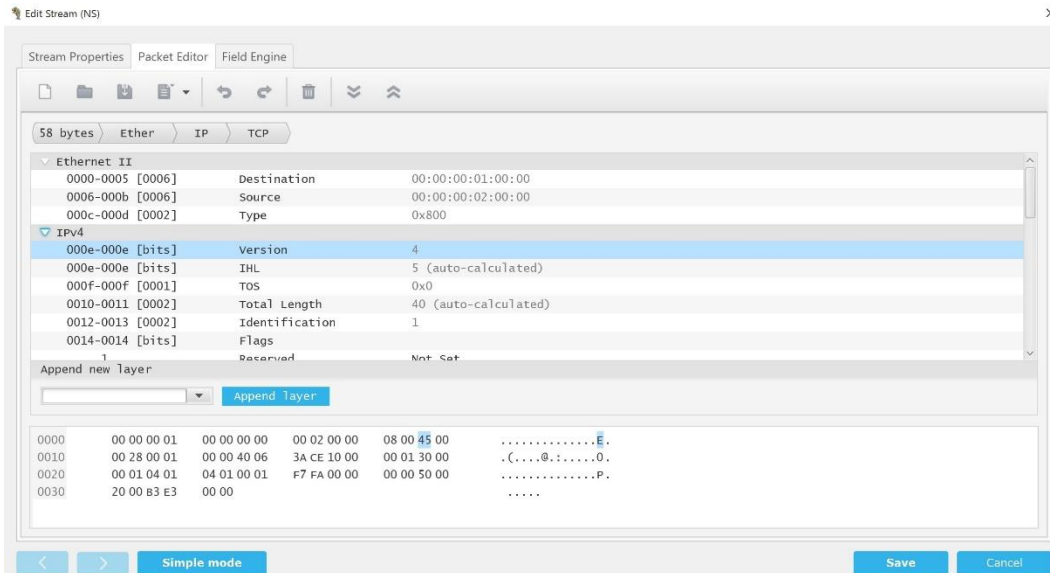
- Packet Editor -> New profile -> New Stream

The screenshot displays the TRex Stateless GUI interface. On the left, a sidebar shows a tree view with 'TRex-192.168.10.180' expanded to show 'Port 0 (User3)' and 'Port 1 (User3)', each containing a 'Profile' item. The main area is titled 'Profile details' and shows 'TRexProf.yaml' selected in a dropdown menu. Above the dropdown are buttons for '+ New Profile', 'Duplicate', and 'Update'. Below the dropdown is a 'Bandwidth' slider set to 0, with a range from 0 to 100. Underneath the slider are radio buttons for '% L1', 'L1 bps', 'L2 bps', and 'pps', with 'pps' selected. To the right of these radio buttons is a 'Duration' field with a value of 0. Below the configuration area are buttons for '+ Build Stream', 'Edit Stream', 'Duplicate Stream', 'Delete Stream', 'Import Pcap', 'Export Pcap', and 'Export To Yaml'. At the bottom, a table lists the configured streams.

Index	Name	Packet Type	Length	Mode	Rate	Next Stream
1	NS					↓

# Using TRex Stateless GUI

- Edit Stream -> Packet Editor (Advanced Mode is enabled)





# References

- TRex Stateless GUI

<https://github.com/cisco-system-traffic-generator/trex-stateless-gui>

- Ubuntu 14.04 LTS

<http://old-releases.ubuntu.com/releases/14.04.1/ubuntu-14.04-desktop-amd64.iso>

- TRex Manual

[https://trex-tgn.cisco.com/trex/doc/trex\\_manual.html](https://trex-tgn.cisco.com/trex/doc/trex_manual.html)