

Wireshark

Packet Columns

- Frame number from the beginning of the packet capture — No.
- Seconds from the first frame — Time
- Source address, commonly an IPv4, IPv6 or Ethernet address — Source (src)
- Destination address — Destination (dst)
- Protocol used in the Ethernet frame, IP packet, or TC segment — Protocol
- Length of the frame in bytes — Length

Logical Operators

- and or && — Logical AND — All the conditions should match
- or or || — Logical OR — Either all or one of the conditions should match
- xor or ^ — Logical XOR — Exclusive alterations - only one of the two conditions should match not both
- not or ! — Not (Negation) — Not equal to
- [n] [...] — Substring operator — Filter a specific word or text

Packet Filter

- ip.dest == 192.168.1.1 — Equal — eq or ==
- ip.dest != 192.168.1.1 — Not equal — ne or !=
- frame.len > 10 — Greater than — gt or >
- frame.len < 10 — less than — lt or <
- frame.len >= 10 — Greater than or equal — ge or >=
- frame.len <= 10 — Less than or equal — le or <=

Filter Types

- Capture Filter — Filter packets during capture
- Display Filter — Hide packets from a capture display

Capturing Modes

- Sets interface to capture all packets on a network segment to which it is associated to — Promiscuous mode
- Setup the wireless interface to capture all traffic it can receive (Unix/Linux only) — Monitor Mode

Miscellaneous

- Slice Operator — [...] Range of values
- Membership Operator — { } - In
- CTRL + E — Start/Stop Capturing

Capture Filter Syntax

tcp src 192.168.1.1 80 and tcp dst 202.164.30.1

Display Filter Syntax

http dest dest == 192.168.1.1 and tcp port

Keyboard Shortcuts

- Move to the next packet in the selection history. — Atl + → or option + →
- In the packet detail, opens the selected tree item. — →
- In the packet detail, open the selected tree items and all of its subtrees. — Shift + →
- In the packet detail, opens all tree items. — Ctrl + →
- In the packet detail, close all the tree items. — Ctrl + ←
- In the packet detail, jumps to the parent node. — Backspace
- In the packet detail, toggles the selected tree item. — Return or Enter

- Tab or Shift + Tab — Move between screen elements, e.g. from the toolbars to the packet list to the packet detail.
- ↓ — Move to the next packet or detail item.
- ↑ — Move to the previous packet or detail item.
- Ctrl + ↓ or F8 — Move to the next packet, even if the packet list isn't found
- Ctrl + ↑ or F7 — Move to the previous packet, even if the packet list isn't found
- Ctrl + . — Move to next packet of the conversation (TCP, UDP or IP).
- Ctrl + , — Move to the previous packet of the conversation (TCP, UDP or IP).

Protocols

- lat
- sca
- moprc
- mopdl
- tcp
- udp

- ether
- fddi
- ip
- arp
- rarp
- decnet

Common Filtering Commands

- http.host == "host name" — Filter by URL
- frame.time >= "Feb 02, 2023 18:10:00" — Filter by time stamp
- tcp.flag.syn == 1 and tcp.flags.ack == 0 — Filter SYN Flag
- waln.fc.type_subtype = 0x08 — Wireshark Beacon Filter
- eth.dst == ff:ff:ff:ff:ff:ff — Wireshark Broadcast Filter
- (eth.dst[0] & 1) — Wireshark Multicast Filter
- ip.host = hostname — Host name Filter
- eth.addr == 00:80:d3:24:52:c4 — MAC address Filter
- tcp.flag.reset == 1 — RST flag filter

- Wireshark Filter by IP — ip.addr == 192.168.0.2
- Filter by Destination IP — ip.dest == 192.168.0.2
- Filter by Source IP — ip.src == 192.168.0.2
- Filter by IP range — ip.addr >= 192.168.0.2 and ip.addr <= 192.168.0.200
- Filter by Multiple Ips — ip.addr == 192.168.0.2 and ip.addr == 192.168.0.20
- Filter out IP address — !(ip.addr == 192.168.0.2)
- Filter subnet — ip.addr == 192.168.0.2/24
- Filter by port — tcp.port == 25
- Filter by destination port — tcp.dstport == 23
- Filter by ip address and port — ip.addr == 192.168.0.2 and Tcp.port == 25

Main Toolbar Items

- Jump forward in the packet history — Go → Go forward — Go Forward
- Go to specific packet — Go → Go to Packet... — Go to Packet...
- Jump to first packet of the capture file — Go → Go to First Packet — Go to First Packet
- Jump to last packet of the capture file — Go → Go to Last Packet — Go to Last Packet
- Auto scroll packet list during live capture — View → Auto Scroll in Live Capture — Auto Scroll in Live Capture
- Colorize the packet list (or not) — View → Colorize — Colorize
- Zoom into the packet data (increase the font size) — View → Zoom In — Zoom In
- Zoom out of the packet data (decrease the font size) — View → Zoom Out — Zoom Out
- Set zoom level back to 100% — View → Normal Size — Normal Size
- Resize columns, so the content fits the width — View → Resize Columns — Resize Columns

- Start — Capture → Start — Uses the same packet capturing options as the previous session, or uses defaults if no options were set
- Stop — Capture → Stop — Stops currently active capture
- Restart — Capture → Restart — Restart active capture session
- Options... — Capture → Options... — Opens "Capture Options" dialog box
- Open... — File → Open... — Opens "File Open" dialog box to load a capture for viewing
- Save as... — File → Save as... — Save current capture file
- Close — File → Close — Close current capture file
- Reload — File → Reload — Reload current capture file
- Find Packet... — Edit → Find Packet... — Find packet based on different criteria
- Go Back — Go → Go back — Jump back in the packet history

