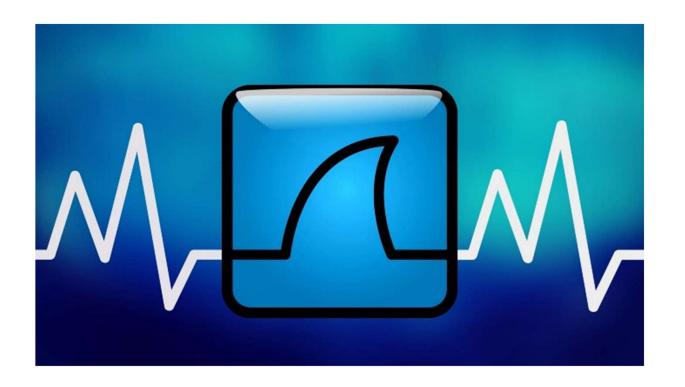
Wireshark



Agenda

- Introduction to Wireshark
- Features
- History of Wireshark
- System Requirements
- Wireshark UI
- Capturing Data packets on Wireshark
- Wireshark Filters
- Wireshark Colorization option
- Working with Captured packets

Introduction to Wireshark

- What is Wireshark?
- Open source

Purpose

- Network administrators use it to troubleshoot network problems
- Network security engineers use it to examine security problems
- QA engineers use it to *verify network applications*
- Developers use it to debug protocol implementations
- People use it to learn network protocol internals

Features

- Available for UNIX and Windows.
- Capture live packet data from a network interface.
- Import packets from text files containing hex dumps of packet data.
- Display packets with very detailed protocol information.
- Save packet data captured.
- Export some or all packets in a number of capture file formats.
- Filter packets on many criteria.
- Search for packets on many criteria.
- Colorize packet display based on filters.
- Create various statistics.

History of Wireshark

- Late 1997 Gerald Combs Started implementing Ethereal
- Initial release July 1998 as version 0.2.0
- Gilbert Ramirez contributed a low-level dissector to it.
- In October, 1998 Guy Harris better topview -started applying patches and contributing dissectors to Ethereal.
- 2006 renamed to Wireshark
- 2008 version 1.0 was released
- 2015 version 2.0 was released

System Requirements for installing Wireshark

- OS Any Linux/Window OS
- Minimum 500MB ram
- 500MB disk space

Wireshark UI

- Menu
- Toolbar
- Filter toolbar
- Packet list pane
- Packet Details pane
- Packet Byte pane
- Status bar

Capturing Data Packets on Wireshark

- Select the interface you want to capture
- Click the first button on the toolbar, titled "Start Capturing Packets."
- Wireshark starts Capturing packets
- Click on the Stop button on the toolbar, titled "Stop Capturing Packets".

Analyzing Data packets on Wireshark

- No. Order number of packet
- Time how long after you started the capture that this packet got captured.
- Source Source system address
- Destination Destination system address
- Protocol Type of protocol(packet)
- Length length of the packet
- Info more info about the packets

Wireshark Filters

2 Types of Filters

1. Capture filters - limit the captured packets by the filter

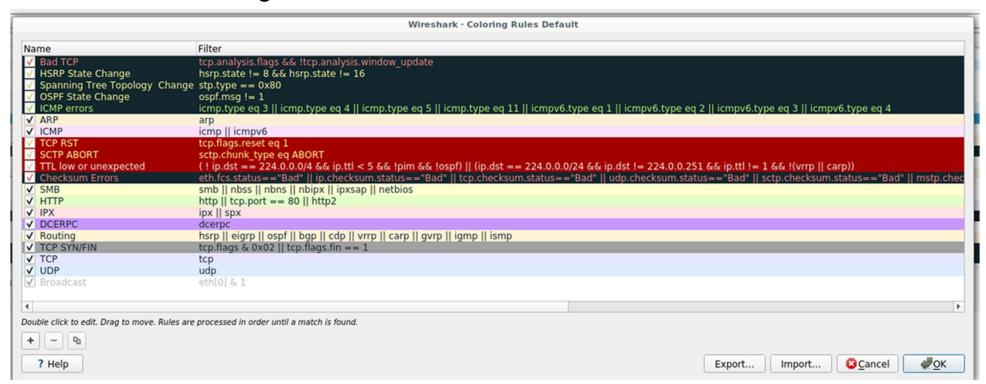
Ex: host 10.250.1.137

1. Display Filter - change the view of the capture during analysis.

Ex: ip.src==10.250.1.137

Wireshark Colorization Options

Goto view -> Coloring Rules



Working with Captured Packets

- Capture the packets
- Select the packet you want to analyze
- Tree view displayed in Packet Details Pane
- Pop-up Menu Of The "Packet List" Column Header
- Pop-up Menu Of The "Packet List" Pane
- Pop-up Menu Of The "Packet Details" Pane
- Toolbar

