NetView User Manual (v1.0.0): Windows Edition

High-Performance Network Diagnostic Tool

NetView is a powerful, self-contained network traffic visualization tool built with Go. It runs locally on your PC, captures packets on your network adapter, and displays a real-time, dynamic graph of all device connections in your web browser.

1 Critical Prerequisites

NetView relies on underlying Windows networking libraries to function. You must install the following software first:

- **Npcap Driver (CRITICAL):** NetView uses the libpcap standard for packet capture. On Windows, this requires the installation of the Npcap driver. You must download and install the latest Npcap driver package from the Nmap Project website.
- **Administrator Privileges:** To access network interfaces for packet capture, NetView requires elevated privileges.

2 Running the Application

Follow these steps to successfully launch and access your NetView dashboard:

1. **Open as Administrator:** Search for "Command Prompt" or "PowerShell," right-click the result, and select "Run as administrator."
2. **Navigate to Executable:** Use the `cd` command to navigate to the directory where you placed `NetView.exe`.
   Example: `cd C:\Program Files\NetView`
3. **Execute the File:** Run the program directly.
   Command: `NetView.exe`
4. **Access Dashboard:** The application will start the server on a random port (e.g., `http://localhost:491`

CRITICAL NOTE: If the browser fails to open (common when running as Admin), look for the URL printed in the command prompt and paste it manually into your browser.

3 Dashboard Features

The NetView interface provides a live, interactive visualization of all network activity seen by your selected adapter.

3.1 The Live Graph

- **Nodes (Circles):** Each node represents a unique IP Address.
- **Links (Lines):** Lines show active communication sessions between devices.
- **Node Hover:** Hovering over a node displays its IP Address and, importantly, its MAC Address, enabling straightforward device identification.
- **Protocol Colors:** Links are colored to easily distinguish traffic types (e.g., typically Blue for TCP, Orange for UDP).

3.2 The Side Panel (Active Connections List)

Click the "**NetView**" title in the top-left corner to open the side panel containing the raw connection data.

- **Grouping:** Connections are automatically grouped by the originating Source IP address.
- **Packet Count:** Each source group and individual session displays a total packet count, allowing you to immediately identify the "chattiest" devices on the network.

3.3 Control Bar Functions (Top Right)

- **Interface Selector:** A dropdown menu allowing you to switch between different physical and virtual network adapters in real-time.
- **Search IP:** Filters the graph and side panel to highlight and show only nodes and connections involving the IP address you enter.
- **Reset Graph:** Clears the internal memory, wiping all current nodes and connections to start a fresh capture session.
- **Export Buttons:** Allows export of the current session data as JSON, CSV (connection table), or PNG (image of the visualization).

4 Troubleshooting (Windows Specific)

Problem: No Nodes Appear / Graph is Empty

Cause: The required Npcap driver is missing or the application was run without sufficient privileges.

Solution: Ensure Npcap is installed and you ran `NetView.exe` As Administrator.

Problem: "Failed to initialize the application..."

Cause: This usually confirms the Npcap driver is not installed or needs updating.

Solution: Install Npcap and reboot your system.