

MTR Watch (GUI)- Complete User Guide (Windows)

Index / Table of Contents

- 1. What MTR Watch Is**
 - 2. Installation**
 - 3. Launching the Application**
 - 4. Understanding the Main Window**
 - 5. Adding and Managing Hosts**
 - 6. Discovering the Network Path (Traceroute)**
 - 7. Configuring ICMP Monitoring**
 - 8. Understanding ICMP Results**
 - 9. Enabling and Configuring SIP Monitoring**
 - 10. Understanding SIP Results**
 - 11. Voice vs Internet Networks (Advanced Routing)**
 - 12. Settings (CSV, Sound, Webhooks)**
 - 13. Alerts, Hysteresis, and Cooldown**
 - 14. Logs and CSV Files**
 - 15. Recommended Settings (Use Cases)**
 - 16. Auto Starting the App**
 - 17. Common Tasks & Tips**
 - 18. Troubleshooting**
 - 19. Network & Security Requirements**
 - 20. Quick Start Summary**
-

1) What MTR Watch Is

MTR Watch (GUI) is a Windows network monitoring tool that:

- Continuously monitors packet loss, latency, and jitter
- Works like MTR (My Traceroute) but with a GUI
- Adds SIP OPTIONS monitoring for VoIP systems
- Generates audible alarms, CSV logs, and Slack / Teams alerts
- Supports advanced routing (Voice vs Internet on one PC)

It is designed for:

- VoIP troubleshooting
 - ISP fault isolation
 - Continuous monitoring
 - Real-time alerting
-

2) Installation

Step-by-Step Installation

1. Double-click MTRWatch_Setup.exe
2. When Windows asks:

“Do you want to allow this app to make changes?”

Click Yes

3. Follow the installer:
 - Accept the installation location (recommended)
 - Choose whether to create a Desktop shortcut
4. Click Finish
5. (Optional) Tick Run MTR Watch (GUI)

- ✓ The app installs into Program Files
 - ✓ An uninstall entry is created automatically
-

3) Launching the Application

You can launch MTR Watch from:

- Start Menu → MTR Watch (GUI)
- Desktop shortcut (if selected)

⚠ During Discover Path, Windows may briefly say “*Not Responding*”. This is normal while tracert runs.

4) Understanding the Main Window

Top Bar Controls

Control	What it Does
Host/IP	Destination hostname or IP
Add Host	Adds the target to the host list
Discover Path	Runs traceroute
Alert Hop	Selects which hop triggers alerts
Network	Auto / Voice / Internet routing
Settings...	Opens configuration

Monitoring Controls

Field	Meaning
Threshold %	Packet loss % that triggers alerts
Window (pings)	Number of samples
Interval (s)	Delay between probes
Hyst N/K	Alert smoothing
Cooldown (s)	Alert suppression time

Panels

- Left panel: Hosts list + Start / Stop / Remove
 - Right panel: ICMP hop results
 - Bottom table: SIP OPTIONS health
 - Status bar: Current activity
-

5) Adding and Managing Hosts

Example: Monitoring Google DNS

1. Click in Host/IP
2. Type:
3. 8.8.8.8
4. Click Add Host
5. The host appears in the left panel
6. Click the host to select it

You can add multiple hosts, each monitored independently.

6) Discovering the Network Path (Traceroute)

1. Select a host in the left panel
2. Click Discover Path
3. The app runs tracert
4. The hop list fills with:
 - Hop number
 - IP address
 - DNS name (if available)
 - ASN / Organisation (WHOIS)

Example hop output:

1- 192.168.1.1 Router

2- 41.160.x.x ISP

3- 129.232.x.x Upstream

After discovery:

- The Alert Hop dropdown is populated automatically

7) Configuring ICMP Monitoring

Basic Setup (Recommended)

1. Choose an Alert Hop
 - Usually the last hop before the destination
2. Set:
 - Threshold: 10
 - Window: 60
 - Interval: 1.0

3. Set Hysteresis:

- N: 3
- K: 5

4. Set Cooldown:

- 120

5. Click Start

8) Understanding ICMP Results

Key Columns

Column	Meaning
winLoss%	Loss in current window
avgRTT	Average latency
p95RTT	95 th percentile latency
jitter	RTT variation
totalLoss%	Lifetime loss

Interpretation

- Loss on hops 1-2 → LAN / router / ISP access
 - Loss only on later hops → Remote congestion
 - High jitter → Voice quality risk
-

9) Enabling and Configuring SIP Monitoring

Example: Monitoring a SIP Trunk

1. Select a host
 2. Tick Enable SIP Monitor for selected host
 3. Enter:
 4. SIP Server IP: 196.25.1.10
 5. Ports: 5060,5061
 6. Protocol: UDP
 7. Click Apply SIP Settings
 8. Click Start
-

10) Understanding SIP Results

Field	Meaning
-------	---------

winLoss%	SIP timeouts
----------	--------------

avgRTT	SIP response time
--------	-------------------

lastStatus	SIP response (e.g. 200 OK)
------------	----------------------------

If SIP times out but ICMP is fine:

- Firewall
 - Provider blocking OPTIONS
 - Wrong port or protocol
-

11) Voice vs Internet Networks (Advanced Routing)

Use Case

- **One PC**
 - **One NIC**
 - **Two IPs**
 - **Separate Voice and Internet traffic**
-

Configure Networks

1. **Click Settings...**
 2. **Open Networks tab**
 3. **Configure Voice Network:**
 4. **Local IP: 10.10.10.2**
 5. **Netmask: 255.255.255.0**
 6. **Gateway: 10.10.10.1**
 7. **Interface: Ethernet**
 8. **Configure Internet Network (optional)**
 9. **Click Apply Network Config**
 10. **Approve admin prompt**
-

Per-Host Network Selection

- 1. Select a host**
- 2. Choose Network:**
 - **Auto**
 - **Voice**
 - **Internet**

The app adds persistent host routes automatically.

12) Settings (CSV, Sound, Webhooks)

Open App → Settings...

CSV Log

- **Choose where logs are saved**
- **Default: user home folder**

Alarm Sound

- **Select WAV or MP3**
- **Repeats until acknowledged**

Webhook

- **Paste Slack / Teams webhook**
- **Click Test Webhook**

Settings Location

All settings are saved to:

%APPDATA%\MTRWatch\mtrwatch_settings.json

13) Alerts, Hysteresis, and Cooldown

Example

- **Threshold = 10%**
- **Hyst = 3 / 5**

Alert fires only if:

- **Loss \geq 10% in 3 of last 5 checks**

Cooldown prevents alert spam.

14) Logs and CSV Files

CSV includes:

- **Minute summaries**
- **Alerts**
- **SIP & ICMP data**

Open in Excel or import into dashboards.

15) Recommended Settings

Voice

- **Threshold: 5–10%**
- **Window: 60**
- **Interval: 1s**
- **Hyst: 3/5**

Fast Detection

- **Window: 30**
 - **Hyst: 2/4**
-

16) Autostarting the App

1. Press Win + R
 2. Type:
 3. shell:startup
 4. Place shortcut to MTRWatch.exe
-

17) Common Tasks & Tips

- Change alert hop while running
 - Re-run Discover Path if routes change
 - Multiple hosts supported simultaneously
-

18) Troubleshooting

Issue	Fix
Alarm won't stop	Click Acknowledge
No sound	Use WAV
SIP always timeout	Provider blocks OPTIONS
All hops loss	ICMP blocked

19) Network & Security Requirements

- ICMP (ping)
 - SIP OPTIONS UDP/TCP
 - HTTPS (webhooks, RDAP)
 - Optional TCP/43 (WHOIS)
-

20) Quick Start Summary

- 1. Add Host**
 - 2. Discover Path**
 - 3. Choose Alert Hop**
 - 4. Threshold 10%, Window 60**
 - 5. (Optional) Enable SIP**
 - 6. Start Monitoring**
-