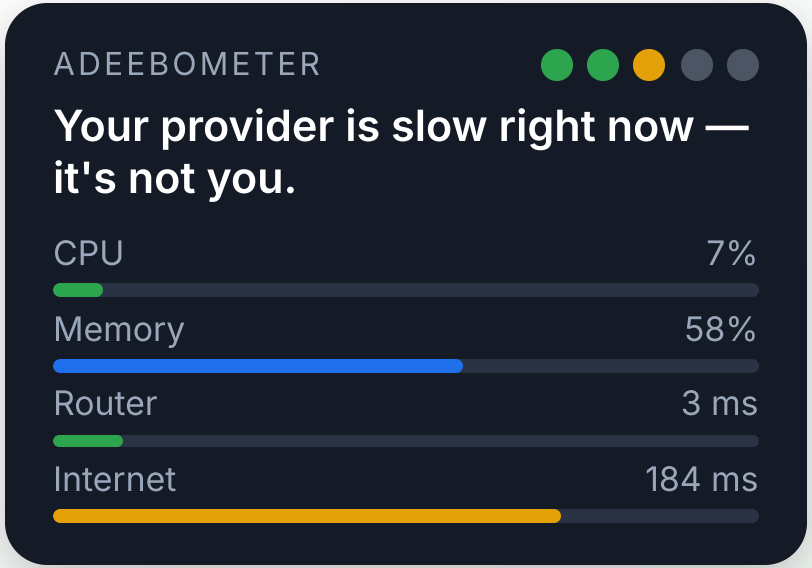
AdeeboMeter

Is it me or the network?

A small, quiet Windows companion. One glance tells you whether your PC, your Wi-Fi, your provider, DNS or the internet is the problem — and what to do about it.

No cloud. No telemetry. Never listens.
Every packet it sends is listed — and you can switch each one off.



The corner widget — faded, never takes a click

THE IDEA IN ONE BREATH

Stop guessing. Get one sentence.

Task Manager
Is something eating my CPU?

Command prompt
`ipconfig`, `netsh wlan`…
what do these numbers mean?

ping · tracert
Some hops time out. Is that bad?

Guess
"Must be the Wi-Fi." Restart the router. Hope.

↓

"Your Wi-Fi signal dropped to 38% when the calls started stuttering. Move closer to the access point."

AdeeboMeter does all of that for you, quietly, every second — and puts the fix right after the finding.

IT LIVES IN TWO PLACES

A glance, or the whole story.

Always on · penny-light

The corner widget

- Faded to 30% (up to 100%), small or bigger; brightens when you hover
- Click-through — whatever is underneath keeps working
- Folds into a tiny chip when a window covers the corner
- CPU, memory, disk, network and a verdict in one sentence

On demand · tray icon or Ctrl+Alt+A

The engineer view

- **Overview** · **Monitor** · **Investigate**
- **Network story** · **Time machine** · **Learn**
- Hover any **?** cursor for a plain-English explanation
- Esc, minimise or X = back to the corner — memory given back

DESIGN

Five promises the whole design follows

A penny app

A few dozen tiny jobs a minute. Anything heavy runs only while you look at it, and stops by itself.

Never listens

No server, account or update check. It checks at every start that it opens no listening port.

No admin rights

Only what Windows shows a normal user. If Windows says no, that part simply doesn't show.

One readable file

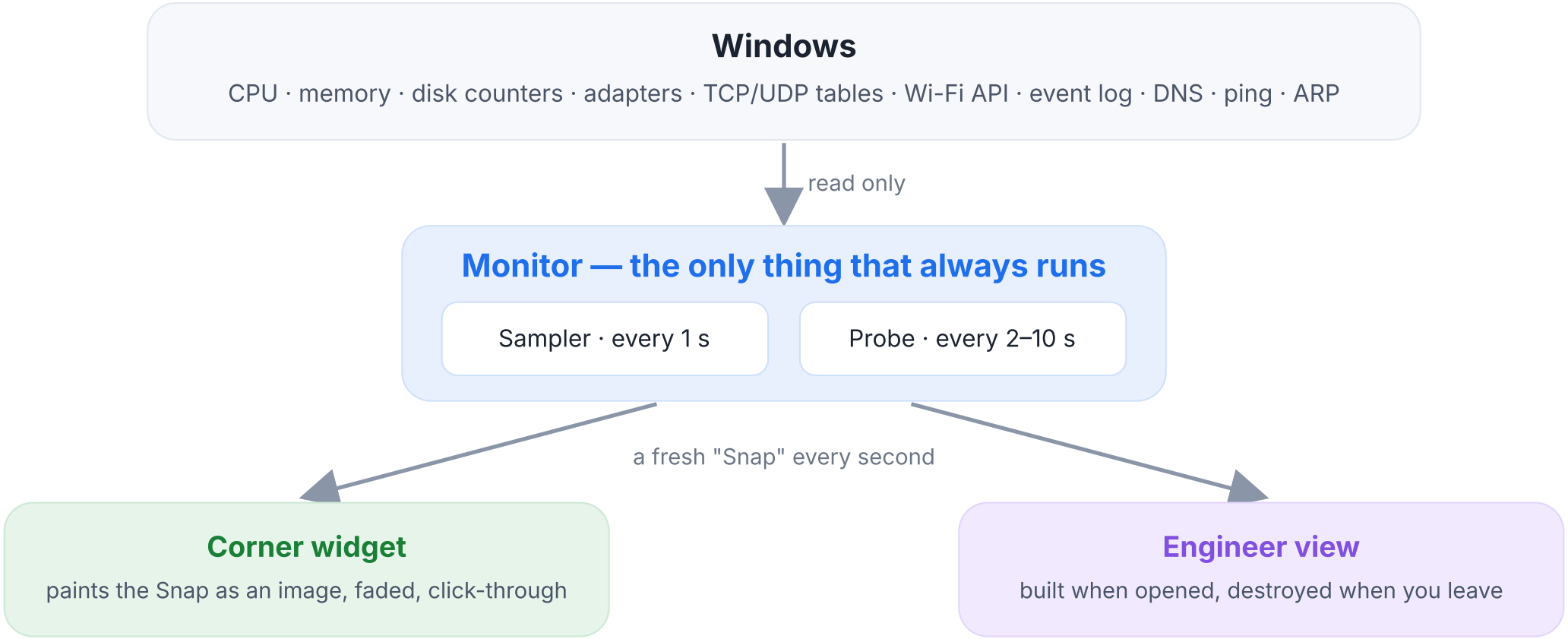
One C# file, built by the compiler already inside Windows. Nothing to install, nothing hidden.

A companion

Every message has a friendly and a plain version. The fix always comes right after the joke.

THE BIG PICTURE

One heart, two faces.



The screen only ever reads finished snapshots — painting can never slow the Monitor down.

THE LIFE OF ADEEBOMETER

From start to exit, nothing left behind.

1

Start

One copy only. Loads settings. Refuses to run if it is listening on any port.

2

Run

The Monitor's two threads start. Tray icon and corner widget appear.

3

Open

Tray click or Ctrl+Alt+A. The Monitor speeds up while you look.

4

Back

Esc, minimise, X or *Back to corner*. The view closes and gives its memory back.

5

Exit

Tray → Exit. Helper tools die with the app (a Windows job object); temporary captures are deleted.

THE HEART · MONITOR

Two threads do all the watching.

Sampler — every second

- CPU, memory, disk and network bytes
- TCP/IP health: retransmits, resets, failed connections, unreachables, UDP drops
- Every 10 s it **judges**: OK / Busy / Act, and one sentence
- Optional: one line to today's 7-day history file

Probe — every 2 to 10 seconds

- Router ping · internet + DNS check (cache skipped)
- Adapters, VPN, DNS server, MTU — changes become events
- Gateway spoof watch: the router's MAC must not change
- Wi-Fi signal, roams, drops — and Windows' reason for a drop
- Apps and connections · Teams calls get the fast pace

HOW THE VERDICT IS FOUND

The first dot that isn't green is where trouble starts.



Everything after it is a victim, not a cause

If your provider is slow, DNS and the internet look slow too. AdeeboMeter blames the first broken link, not the last one.

Cause hints line up *when* things happened

"TCP retransmits (12/s) started when Wi-Fi signal fell to 40%." Click a dot to jump to the page that explains it.

ENGINEER VIEW · TOUR

Eight places. Everything you'd dig out of a dozen tools.

Overview

The verdict, router, internet, DNS and traffic right now, what needs attention, today.

Monitor

Connections (**Sniff** into Wireshark), your Wi-Fi or cable, what's running, live capture.

Investigate

What's wrong? finds the broken layer; or pick the problem. Check a destination, health check.

Security

One checkup: 42 defensive checks of this PC, your network and your sites. Reads only; you fix.

Network story

Follow an app from your PC to the server, box by box, and time each step.

Time machine

Replay any minute, the week as a heatmap, data usage, calls, new devices.

Learn

46 topics, two lines and a picture each — from "the layers" to svchost.

Toolbox

100+ tools in four sections — Network, Devices, Traffic Lab, Windows — with quick buttons. Type to find one.

INVESTIGATE

Start from the problem, not the protocol.

What's wrong? - or six questions people ask

- **What's wrong?** - layer by layer, stops at the first broken one
- The internet is slow
- A website or app won't open
- Calls freeze or sound robotic
- I keep disconnecting
- It works at home, not on VPN or at work
- My PC is slow

Each runs the checks AdeeboMeter already has and answers in the same four parts: **Finding · What I observed · Not established · Next test**. When the header turns amber or red, **Investigate ›** next to it opens the one that fits.

Every fact says where it came from

- **measured** AdeeboMeter timed it itself
- **Windows-reported** Windows said so
- **seen in packets** Wireshark decoded it
- **inferred** a conclusion from the others
- **unavailable** this PC doesn't let us see it

Details (top right) adds raw values and the second each one was read.

SECURITY

One checkup. 42 checks. You decide what to fix.

This PC (27)

Antivirus, firewall, BitLocker, Secure Boot, UAC, updates, supported Windows, SMBv1, RDP and NLA, open ports, added root certificates, hosts file, proxy, unsigned startup, risky scheduled tasks, Credential Guard, memory integrity, screen lock, open Wi-Fi.

Your network (11)

Wi-Fi security, DNS that rewrites answers, https decrypted on the way, ARP spoofing signs, a second DHCP server, router UPnP, admin page over http, Telnet / FTP, DNS leak on VPN, new devices.

Your sites (4)

Certificate expiry, old TLS still accepted, security headers, SPF / DKIM / DMARC.

A scorecard, problems first

Risky · worth a look · good · info. Click a check to run it again; Copy the whole card for a ticket.

Every fix is yours

"Open the setting" goes to the Windows screen or your router's page. AdeeboMeter changes nothing.

Defensive only

Reads settings, no admin. Never tries a password, never looks you up in a breach database, never scans beyond your router.

TOOLBOX

100+ tools. Type what you need.

Path & routing

MTU per hop, MTR, the way back, which route, your gateway (VRRP / HSRP), routing protocols on your segment, IPv6.

Is it reachable?

Port test, many ports, every IP behind a name, HTTP builder, STUN, RDP and LDAP / AD, mail with STARTTLS, RADIUS, TACACS+.

Traffic Lab

Build test traffic: ICMP size / DF / TTL, UDP and TCP payloads, ARP, DHCP options, test trap, NetFlow, iperf3. Capped, one target.

Names & time

dig (HTTPS, DNSSEC, TLSA, over DoH) and the delegation from the root, encrypted DNS, hosts file, NTP.

Network devices

SNMP v2c / v3, find devices and their names, shared folders, ssh / scp commands ready to copy, ping sweep.

Windows

802.1X, domain controllers, Group Policy, certificates, PFX, CSR and hashes, firewall rules, failed services.

The PC (in Health)

Memory, disk, heat, frozen windows, leaks, crashes, battery - and Quick tidy, which shows where; you do it.

Always the client

Runs only when you press Run. Never listens, never logs in, never sends a routing packet.

SNMP

Ask a switch or router - in plain words.

Views that answer questions

Snapshot · interfaces with problems first and what changed since your last run · traffic · CPU · LLDP · sensors · find a MAC · VLANs · PoE · LAG · printer · UPS.

Walk anything

Any OID or MIB name, up to 2,000 values, paced - rebuilt into tables joined by index, the useful columns first.

Your own MIBs

Drop a vendor's .mib files in a folder. A strict reader indexes names, tables and descriptions once; nothing in a MIB is ever run.

Search, then walk

Type *temperature*, *optic* or *fan* - matching objects with their description, one click walks that table.

v2c and v3

No auth, auth (MD5 / SHA-1 / SHA-256) and AES-128 privacy - MD5 and SHA-1 keys checked against RFC 3414's own test vectors, SHA-256 against an independent computation. Masked, kept for the session only.

Read-only, always

GET and GETBULK only. It never sets a value and never listens for traps. A column it couldn't read says n/a - never 0.

NETWORK STORY · LEARN

Follow one app from your PC to the server.

Teams → Windows (socket) → Wi-Fi → Router → Provider → Internet → **Microsoft**

Ready when you open it

The busiest app is picked for you; nothing to type. Click a box for what happens there.

Where the time goes

Name · connect · lock · first byte, as one bar. Real packets with Wireshark.

Learn in a glance

Two lines, a picture, and one "if it goes wrong" line. People who want the textbook read it elsewhere.

YOUR WI-FI · YOUR CABLE

What your radio and your cable are really doing.

Radio

Exact access point, 2.4 / 5 / 6 GHz, channel, **width** (20–160 MHz), Wi-Fi generation, signal in % and dBm, **roaming help** (802.11k/v/r) — read from the access point's own beacons.

Who else is on the air

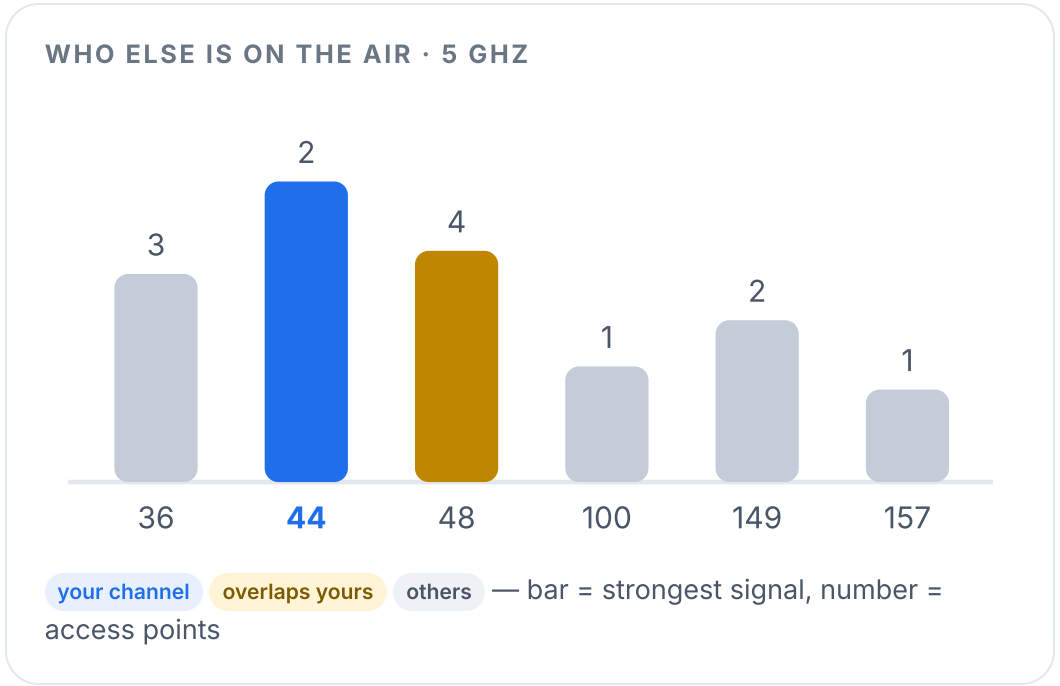
How many access points share or overlap your channel, and how busy the air is.

Windows' diary

Every Wi-Fi drop in 24 h with the reason Windows recorded; DHCP trouble.

Cable

Negotiated speed (100 Mb/s = bad-cable sign) and **Find my switch port**: switch, port, VLAN from LLDP/CDP. Nothing is sent.



WHAT'S RUNNING

Every program, with a story — not just a name.

Click any program for five answers:

- **What it does**
- **How it works**
- **Why you need it**
- **What happens without it**
- **Can I close it?**

Programs not in the guide are described from the file itself — description, publisher, folder. AdeeboMeter **only explains; it never closes anything.**

Spotify · your app — safe to close

OneDrive · syncs your files — leave it

svchost · Windows services — Windows needs it

VPN client · company tool — managed by IT

CHECK A DESTINATION

Eight steps, from the name to the last hop.

1
DNS
Real lookups, cache skipped. A second opinion from 1.1.1.1 catches filters.

2
Route
Which adapter Windows would use — found without sending anything.

3
Ping
Four echoes: delay and loss.

4
TCP
The three-way handshake to your port, timed.

5
TLS
1.2 / 1.3 only, Windows validates. Untrusted? Nothing is sent.

6
HTTP
One HEAD request: status line and time to first byte.

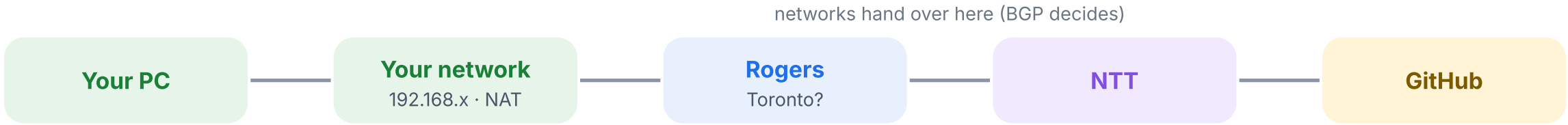
7
Path MTU
"Don't fragment" pings find the biggest packet that fits.

8
Path
MTR-style trace: 3 rounds per hop, all hops at once.

If a check fails, a **sign-in page check** catches hotel and airport portals. Pin up to 5 destinations and **Run all**.

THE PATH STORY

Who carries your traffic — and what's in the way.



NAT

Double NAT and carrier-grade NAT (100.64.x.x) spotted from the hop addresses.

Tunnels

From the packet size: 1492 = PPPoE; smaller = VPN, LTE or satellite.

Firewalls

A refusal faster than the server is far = something in between said no. Ping works, port silent = dropped.

And more

Load-balanced hops, reroutes, where the delay jumps, hidden tunnel hops, the return path — and, with online lookups, the network that owns each hop.

LIVE CAPTURE · TIME MACHINE

Deep when you ask. Silent when you don't.

Only while you press Start · stops after 15 min

Live capture (Wireshark's engine)

- What your traffic is made of; top conversations named from the traffic itself
- Wireshark's expert warnings; bytes per app
- **Call quality:** RTP loss, jitter (RFC 3550), MOS score (ITU-T E-model) — audio stays encrypted
- **Rogue DHCP:** two servers answering on one network

History stays on this PC · 3 days by default (1–90)

Time machine

- **Replay:** drag to any minute — the dots, the numbers, what changed around then
- **The week:** 7 × 24 squares; click one to replay that hour
- Data usage per network, "slower than usual", after-call summaries, new devices
- One line a minute, older days compressed, oldest deleted every night

PRIVACY

What leaves your PC — and what never does.

WHAT	WHEN	WHERE TO
Router ping	every 2–10 s (Settings)	your own router
Internet + DNS check	every 15–60 s, or off	1.1.1.1 / 8.8.8.8 and your DNS server
Provider name	once per network	a 6-hop trace toward 1.1.1.1, one reverse-DNS lookup
Checks you start	when you press Check, Investigate or Time each step	where you asked, plus one DNS question to 1.1.1.1
DNS speed test · pinned watch	when you press it · opt-in, every 30 s	1.1.1.1, 8.8.8.8, 9.9.9.9 · the destination you pinned
Sign-in page check	only if a check fails (can be off)	msftconnecttest.com — the page Windows itself uses
Toolbox	only when you press Run	the address you typed, or the one the tool names on screen
Online lookups	opt-in, 5 min–3 h, then off by themselves	public IP addresses only → RIPEstat, PeeringDB
Wi-Fi details · live capture	—	nothing leaves; Windows is asked locally

Never: cloud · account · telemetry · an updater · ads · crash reports sent · listening ports

SECURITY

Hardened by design, proven by checks.

No shell, ever

Windows tools by full System32 path, fixed arguments, a timeout, inside a job object that dies with the app.

Inputs validated

Destinations checked strictly before anything runs. Capture paths fenced inside AdeeboMeter's own folder.

TLS done right

Only TLS 1.2 / 1.3; Windows validates certificates; nothing is sent over an untrusted connection.

DLLs only from System32

For the whole process — a DLL planted next to the exe in Downloads is never loaded.

Nothing to hijack

No updater, no binary serializers, no XML parser, no secrets in the code. RADIUS secrets and SNMP communities / v3 passwords are masked and never kept.

A provable build

Built by GitHub from this source, actions pinned to exact commits. The build can only read; a separate release step signs provenance. SHA-256 on every file, 0 analyzer findings.

STAYING LIGHT

A penny in the background.

~0.5%
of one CPU core with only the widget

2–3%
with the engineer view open — zero the moment you leave

64 MB
memory budget, shown live in the footer

18·36·74
checks a minute: Penny · Balanced · Engineer

Memory stays flat

Fixed-size rings; capped lists (300 events, 3,000 conversations, 7 days).

Paints only on change

The widget checks the mouse 20×/s near the corner, 4×/s otherwise, 2×/s when hidden.

Nothing leaks

Windows, timers, bitmaps and helper tools released on close — and the self-test proves it.

PROOF, NOT PROMISES

AdeeboMeter.exe --selftest

30 checks on your own PC, written to `AdeeboMeter-selftest.txt`:

- Counters, socket tables and DNS reading work
- **Never listens**
- Bad destinations are rejected
- The engineer view opens in under 1 second
- **No handle leaks** over 30 open/close cycles
- Every label has an explanation
- Parsers give the right answers on known samples: Wi-Fi, LLDP/CDP, event log, RTP, DNS records, SNMP and its v3 keys, MIB files
- Memory stays inside the 64 MB budget
- `--deeptest`: hostile input into every tool, repeats to catch leaks, the UI under stress

```
AdeeboMeter 1.1.3 self-test
PASS never listens
PASS socket tables
PASS destination validation
PASS engineer view opens < 1 s
PASS 30 open/close, no leaks
PASS Wi-Fi information elements
PASS LLDP / CDP parser
PASS RTP call quality
…
ALL PASSED
```

HONEST LIMITS

What Windows doesn't let us do without admin or the cloud.

AS numbers / BGP data

Need an internet service — only through the opt-in, timed online lookups. Otherwise router names tell the story.

TCP / UDP traceroute

Needs raw sockets (admin) — traces use ICMP.

Per-connection RTT

Needs admin to switch on — per-app traffic comes from live capture instead.

The DNS cache

Admin-only on some Windows builds — then names come from live capture.

Speed tests

Only to a server you run (iperf3, bufferbloat, TWAMP-light) — AdeeboMeter never listens.

Inside a tunnel or your ISP

Can only be inferred, never seen.

DSCP marking

Windows usually clears a marking a program asks for unless a QoS policy allows it — only a capture proves it.

Screens with different scaling

Moving between a 100% and a 200% screen: Windows scales the window, slightly soft.

GET IT

One file. It installs itself.

1

Download

The zip from the website or GitHub Releases. Open it.

2

Double-click AdeeboMeter.exe

Choose **Install**. It goes in just for you — a Start menu entry, an entry in Settings › Apps, no admin rights.

3

Look at the corner

It's already running, bottom-right. Tray icon or Ctrl+Alt+A for the full story.

Update

Run the new exe, choose **Update**. Your settings come along; the old version steps aside.

Remove

Settings › Apps, or the tray menu. Everything goes — folder, settings, history.

Or don't install

Just run it from here keeps it portable. Not code-signed: SmartScreen says *More info → Run anyway*.

Is it me or the network?

Now you know — in one glance.

No cloud. No telemetry. Never listens.
Every packet it sends is listed — and you can switch each one off.

`adeeb111.github.io/AdeeboMeter`