AirTraffic
CLI Network Tool

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What is AirTraffic?

Cross-platform CLI for:

- **Monitoring** network usage per application (live & historical)
- **Blocking / allowing** apps from using the network

Platforms: macOS, Linux, Windows
Stack: Python 3.7+, psutil, SQLite

Features

Monitor Network Usage

- Live dashboard with airtraffic live
- Historical usage with airtraffic since today/month

Block or Allow Apps

- Control individual apps or all apps at once
- Commands: block, allow, blocked, allowed

Background Service

- Automatically collects stats every 60 seconds
- Easy install and uninstall commands

Architecture

Module	What it does
cli.py	Handles commands you type
daemon.py	Runs in background, checks network every 60s
monitor.py	Tracks which app uses how much data
database.py	Stores and retrieves usage history
firewall.py	Blocks or allows apps from using internet

How blocking works

Windows:
- Uses built-in firewall to block apps
- Block = add firewall rule, Allow = remove firewall rule

macOS / Linux:
- No built-in per-app firewall, so we prevent the app from running
- Block = kill app + remove permission to run
- Allow = restore permission to run

Note: Needs admin/sudo to modify firewall or file permissions

How it works

Background daemon (after install):
- Checks network usage every 60 seconds
- Figures out which app used how much data
- Saves everything to a database

When you run "airtraffic since today":
- Reads the database
- Adds up all data since midnight
- Shows you the totals per app

When you run "airtraffic live":
- Monitors network in real-time (no database needed)
- Updates the screen every few seconds

Install & usage

Install:

```
pip install -e .
airtraffic install   (sudo / Admin)
```

Common commands:

```
airtraffic live
airtraffic since today │ month │ "dd:mm:yyyy hh:mm:ss"
sudo airtraffic block Chrome │ allow Chrome │ block all │ allow all
airtraffic blocked │ allowed
airtraffic uninstall
```

Summary

- AirTraffic = **monitor** (live + since) + **firewall** (block/allow per app) via a single CLI.
- Daemon persists stats to SQLite; CLI reads for "since" queries.
- Cross-platform: Windows uses firewall rules; macOS/Linux use execute-bit blocking.
- One-time install sets up launchd (macOS), systemd user (Linux), or Task Scheduler (Windows).