

HOW TO SET UP FOR 24-HOUR TRAFFIC COUNTING

I experimented with different combinations and finally it has come down to this.....

GROUND RULES (best practice in Department for Transport)

- Between March and October.
- Only weekdays.
- Disallow school holidays and bank holidays.
- Between 7am and 7pm. Better still, 24-hours continuous – manual is most accurate. Counting from video recordings.... See below to see how that can be done.
- There is a case for deliberately counting traffic when the M2 has accidents or during the four-month closures of the A249 junction.... Something to look forward to!

The main objective for us is to count total volume - the exact mix is not relevant. Don't waste time and energy trying to count axles. However, if you follow my approach, you will count cars and "commercial" made up of HGV and LGV. Also buses and motorbikes.

PICK A VIEW-POINT

Where and how you place your webcam/camera affects your field of view and how easy it is to count from the completed recording.

* The nearer you are to the road, the more important it is to slant your view at an angle so you can see vehicles coming and going for longer.

* Centre your field of view on a fixed point such as a lamp-post that can be seen over the tops of vehicles (or is on your side of the road. This will help you keep track by 'clicking' when vehicles have passed that fixed point. Take it from me, it really helps – it took me a while to realise!

*If you can, place your camera in an upstairs window. It is easier to track traffic on both sides of the road that way. You will be counting vehicles in two directions.

I fixed my stand-alone webcam on a monopod leaning against the window-frame (connected to my laptop with an extension cord) so it looked along the road at an angle.

HARDWARE

A laptop (or desktop if it is in the room overlooking the road in question and within the reach of an extension cord to a webcam)

A Webcam (I chose a Logitech C615 Portable webcam @ £35 - Full HD 1080/30fps) – but you don't need to spend that much

Tripod (or monopod) for the webcam - anything will do that lets you set up the camera to look at the road.

An extension cord for the webcam to connect your PC to the camera (I bought a UGREEN 3-metre A Male to A Female @9.99)

A Smart Phone - for counting (see below for the App)

SOFTWARE - All Open Source (free)

On the Laptop:

1) To create the video - **OBS Studio** (<https://obsproject.com/>) - download the one for your operating system - PC or Apple). I chose this software because it allows recordings of any length. That is not true of all software.

2) To review the video - **VLC Media Player** (<https://www.videolan.org/>). I use this software a lot because it is flexible, handles large files perfectly well, and controls are easy. The time is tracked accurately so you can count one hour at a time (for your sanity!) and pick up at the same point at a later time.

I chose to deliberately stop my count after every hour of recording and wrote the cumulative count into a notebook. I just wanted to understand the distribution of traffic (and pollution) over the 24-hour period.

On the Smartphone:

1) **Traffic Counter by Daily Fun**. With this app, your smartphone becomes a simple key pad where you 'click' counts in two directions - covering motorcycles, Commercial (HGV and LGV), Buses, Cars. I also ticked a paper note pad each time I saw a bicycle in either direction - they are *very* rare and half the time are on the pavements!

Why I made these choices

1) A laptop tends to have **discs** large enough to cope with recording a 40Gb (or less file(s)). Once recorded, a laptop **screen** is large enough to keep eyes on moving traffic and avoid visual confusion. If traffic counting

speed is too much to keep track of and count, VLC software allows you to slow down or speed-up the playback. I wasn't happy going above 2x speed for the night-time recordings and I absolutely didn't speed-up the playback when the traffic was at its highest. That would be madness!

- 2) The smartphone 'clicker' gave large 'buttons' to record quickly as you watch the recording. It just suited me.

HINT: It is NOT necessary to be 100% accurate on which button you press for the vehicles. Sometimes a people-mover looks like a Light Goods Vehicle or a beefy four-wheeler could be commercial or private. What IS important is to count the types of vehicles that matters most to you on the road in front of you. For my 24-hour count on the A2, it was TOTAL VOLUME – but I did try to count cars, HGV/LGVs together, buses and motorbikes.

In our lanes (Lynsted Lane, Station Road, Frognal Lane, Lower Road), you may want to make the same distinctions. The mix of HGVs, agricultural vehicles and buses is important when our lanes are so narrow – particularly as they approach the A2. Taken all together, we can tell the “real world” story of what it is like to live in our communities.

I am happy to chat this through or answer questions if anyone wants to take on a count that matters to you outside your home. If you want to see the results of my own count visit - <http://aqma5.co.uk> (the full summary figures are in a downloadable PDF - http://aqma5.co.uk/_assets/A2_-_Manual_Traffic_Count_-_21st-22nd_July_2022.pdf).

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6th September 2022