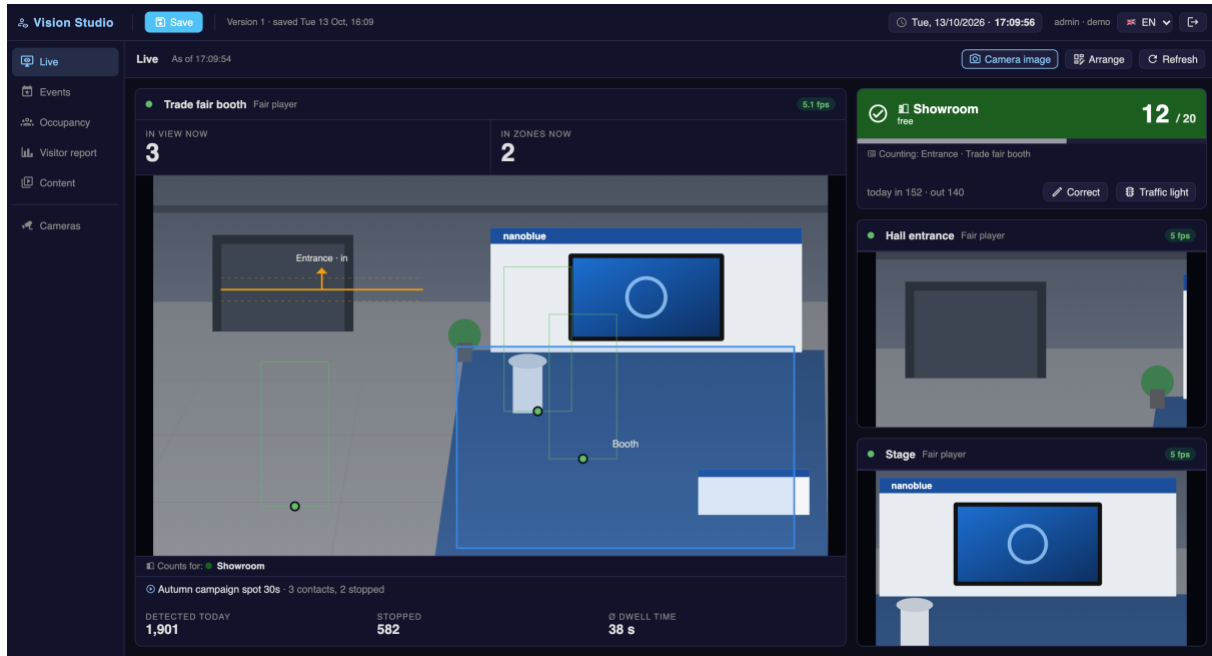


//nanoblu

nanoblu® Vision Studio

Count visitors, control occupancy, prove impact – with the nanoblu Vision Sensor



Live view, freely arranged: the booth large with detected people, “Booth” zone and counting line (“Counts for: Showroom”), next to it the room tile “Showroom” with occupancy and traffic-light level, plus entrance and stage.

What it is about

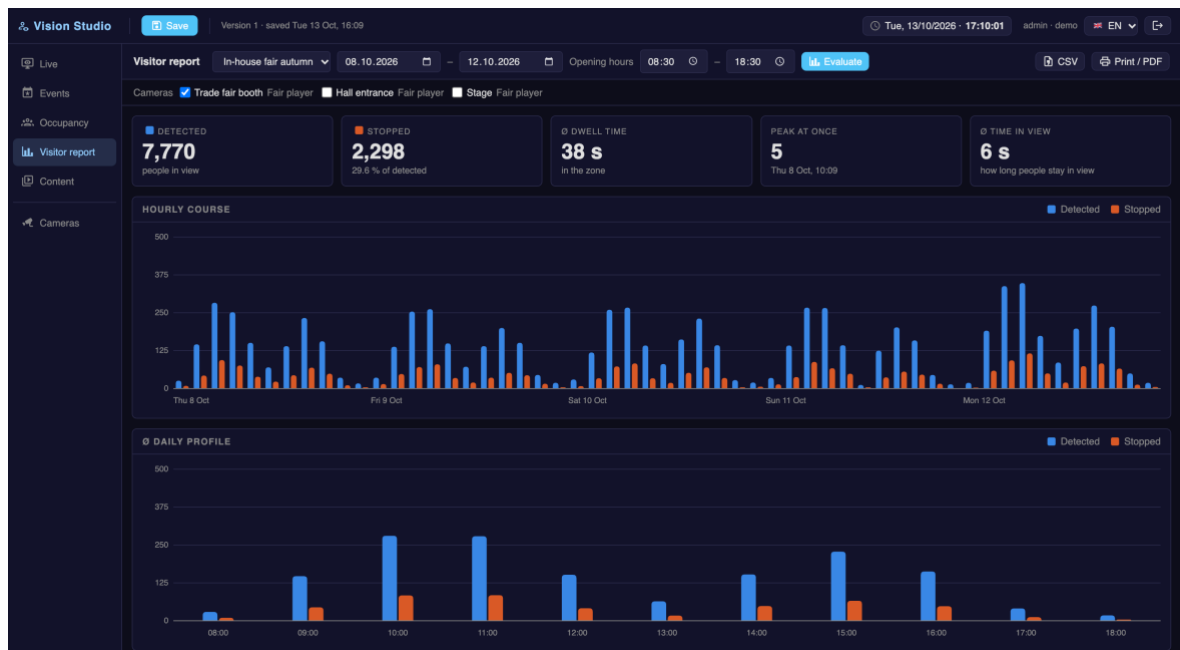
The nanoblu Vision Sensor is a camera with built-in AI. It detects people inside the device and only reports where people are – no video image. Vision Studio turns this into usable figures: how many visitors passed a trade fair booth, how many stopped and for how long? How many people are in a room right now, and will it soon be full?

The analysis runs directly on the nanoblu media player the camera is connected to. It reacts immediately – for example with a traffic light at the entrance or a different layout in the Interactive UI – even without an internet connection. Set-up and evaluation are done centrally in the browser via the nanoblu portal.

Key features

Visitor report for trade fairs and events

- **Detected:** all people who were in view – e.g. walked past the booth.
- **Stopped:** people who stayed in a zone longer than an adjustable time, e.g. 5 seconds at the booth – including the rate.
- **Dwell time, peak times, daily profile:** average dwell time in the zone, highest number of simultaneous visitors with time, hourly course and average daily profile across all days.
- **Per day with data check:** table per day; also shows whether the camera delivered data during the entire opening hours.
- **Export:** CSV for Excel and print or PDF as a report for exhibitors or customers.



Visitor report of a five-day event: key figures, hourly course and average daily profile.

PER DAY						
DAY	DETECTED	STOPPED	RATE	DWELL TIME	PEAK	DATA
Thu 8 Oct	1,510	461	30.5 %	38 s	5 10:09	100 %
Fri 9 Oct	1,466	421	28.7 %	38 s	5 10:01	100 %
Sat 10 Oct	1,483	418	28.2 %	38 s	5 11:15	100 %
Sun 11 Oct	1,410	416	29.5 %	38 s	5 10:56	92 %
Mon 12 Oct	1,901	582	30.6 %	38 s	5 10:15	100 %

"Data" = minutes with camera data relative to opening hours. Below 90 % the camera was temporarily off or unreachable.

Table per day; the "Data" column marks days on which the camera temporarily delivered no data.

Events

- Create trade fairs, exhibitions and events as presets: period, opening hours and cameras. One click opens the finished report.
- Opening hours filter the evaluation; data outside them is indicated and can be included with one click.

Event

NameIn-house fair autumn

Period08.10.2026 - 12.10.2026

Opening hours08:30 - 18:30

Cameras☒ Trade fair booth ☐ Hall entrance ☐ Stage

DeleteCancelApply

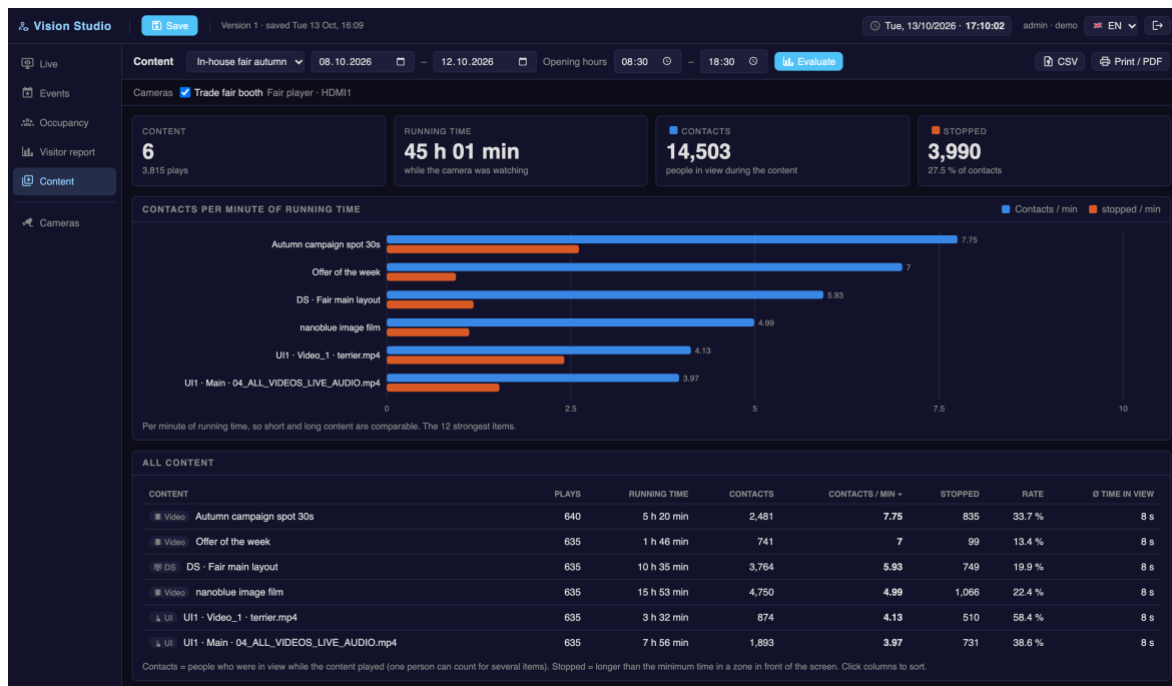
Event preset with period, opening hours and camera.

Audience per content

Which content works? If the camera watches the audience in front of a screen, Vision Studio counts for every content item playing there how many people saw it and how many stopped – automatically, without changing the content.

Screen	Content is recognised from
HDMI 1	Video player and Media Studio: every video and image, with its name from the media library
HDMI 2 – digital signage	DS player: the layout currently playing
HDMI 2 – Interactive UI	the current page and the visible video panel
any	own flows can report what is playing

- **Contacts:** people in view while the content was playing.
- **Stopped:** longer than the set time in the zone in front of the screen – including rate and average time in view.
- **Ranking per minute of running time:** short and long content is fairly comparable – e.g. two variants of a spot (A/B).
- **Live:** the camera card shows what is playing and how many contacts the content has so far. Export as CSV, print or PDF.

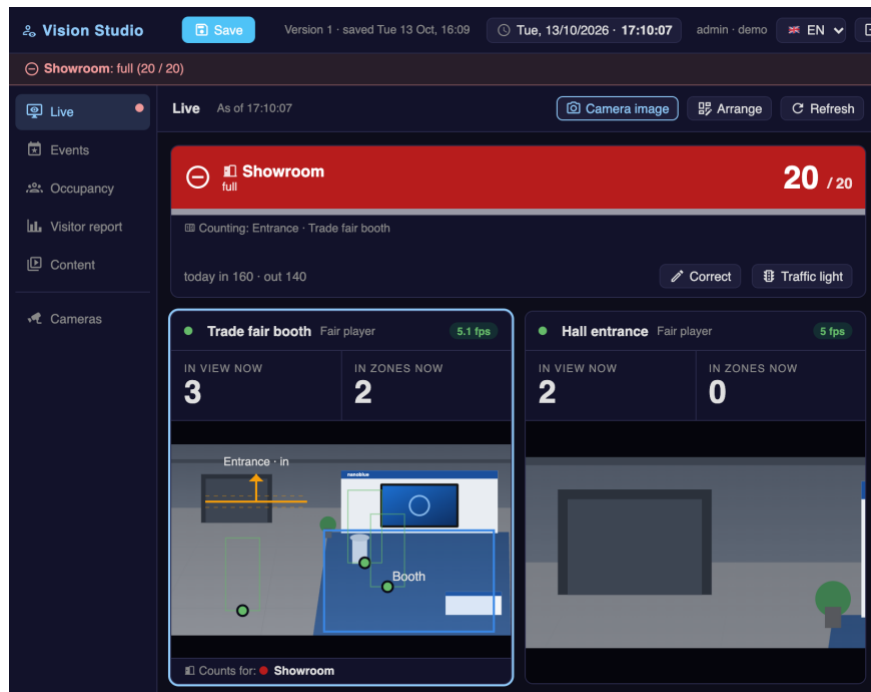


Content of an event: videos, DS layout and Interactive UI pages compared.

Occupancy and traffic light

- **Counting lines at the entrances** count who goes in and who goes out; this gives the current occupancy of the room – also across several entrances and cameras.
- **Three levels:** free, almost full (from a freely selectable number of people) and full (capacity). Hysteresis prevents flickering at the limit.
- **Daily reset and correction:** the count starts from zero at a fixed time; if needed, occupancy can be corrected manually in the studio.
- **Directly into the Interactive UI:** on every level change the player shows or hides elements, sets buttons, changes texts or switches the page – without any programming.
- **Ready-made traffic-light page** for a display at the entrance – with your own texts, in German, English or Spanish.

- **Room tile in the live view:** occupancy, traffic-light level and fill bar at a glance; “Counting:” names the cameras and counting lines the number comes from. Conversely, every camera tile shows “Counts for:” with the room and its traffic-light colour.
- **Connection made visible:** hovering over a room tile highlights the cameras that belong to it – and vice versa.
- **Notification:** notice in the studio and via Telegram and browser push (nanoblue Notify) on “full”, optionally “almost full”, and “free again”.



Room full: notice bar at the top, red room tile with occupancy, “Counting: Entrance · Booth”, correction and traffic-light preview; the mouse is over the room, so the counting camera “Booth” is highlighted.

SHOWROOM
Preview

Name
Showroom

Capacity
20
people

"Almost full" from
16
people (80 % of capacity)

Hysteresis
90
%

Reset to 0 daily at
03:00
o'clock

Counting lines
☒ Trade fair booth - Entrance (Fair player)
Calculated on player Fair player – the traffic light there also works without internet.

NOTIFICATION (TELEGRAM AND BROWSER)
Manage recipients

Notify on
☒ full ☐ almost full
"Free again" is sent automatically to everyone who was alerted before. Checked every 30 s on the server.

INTERACTIVE UI (ON THE PLAYER, ALSO WITHOUT INTERNET)
Suggest IDs

On every level change the player sends this mapping to the Interactive UI. Element IDs as in UI Studio; empty = send nothing.

free

almost full

full

belegung_showroom_frei

belegung_showroom_fastvoll

belegung_showroom_voll

button_...

button_...

button_...

No.

No.

No.

free

almost full

full

Page: only when entering the level; number as in UI Studio.

Level text element
belegung_showroom_text

Occupancy element
belegung_showroom_zahl
12 / 50

UI slot
all
e.g. ui1 – only this slot reacts; empty = all

Resend every
10
s
so everything is right after a reload or slot change (the page is not switched); 0 = off

TRAFFIC LIGHT PAGE (OPTIONAL)

free

almost full

full

Welcome

Almost full

Please wait

Please come in

Only a few places left

The room is full – it will be your turn shortly

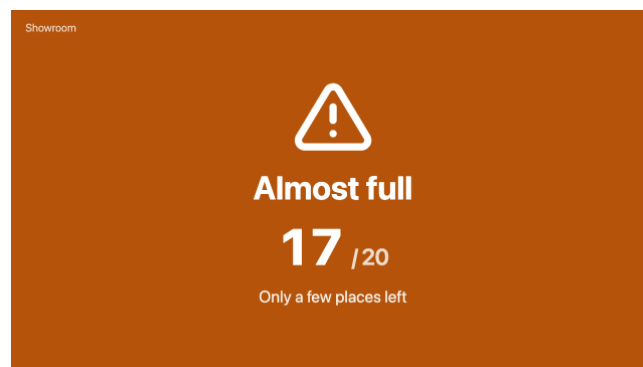
☒ Show occupancy and capacity on the traffic light

Address on the player
http://localhost:1888/vision-engine/ampel?room=r1

Full screen in kiosk mode or as a web page in DS Studio. In the Interactive UI as an HTML object: <iframe src="..vision-engine/ampel?room=r1">. Language with &lang=series, without number with &count=0.

Room settings: capacity, “almost full” threshold, counting lines, Interactive UI mapping and traffic-light page texts.

Interactive UI	What happens on a level change
Element visible	show the panel or element of the current level, hide the others – e.g. a different layout
Button active	set the button of the current level active – e.g. as a traffic-light symbol
Switch page	switch to a specific UI page, only when entering the level
Texts	show the level text (“Please wait”) and occupancy (“12 / 20”) in text elements

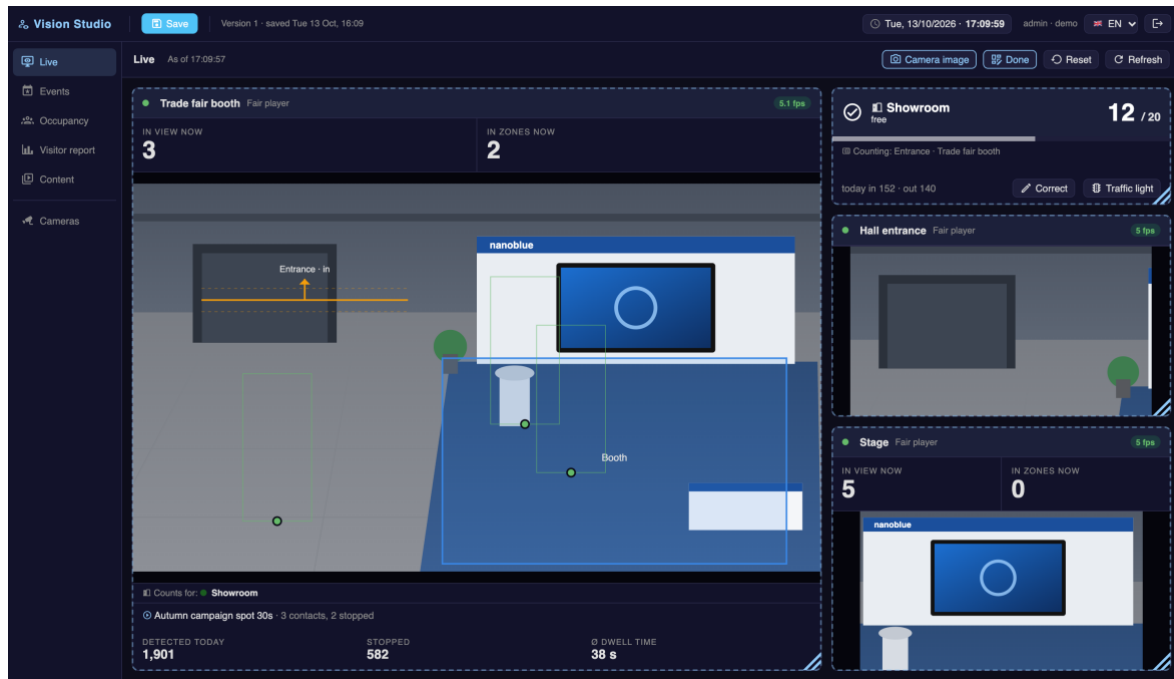


Traffic-light page on the player at the “almost full” level – runs full screen, in DS or in the Interactive UI.

Freely arranged live view

- **Tiles by drag & drop:** with “Arrange” the camera tiles can be moved by their header and resized at the corner – important cameras large, others small.
- **Always tidy:** tiles snap to a grid and never overlap. Room tiles can be moved and resized just like cameras – e.g. the occupancy next to the entrance camera.
- **Saved per user:** everyone sees their own arrangement, on any computer. On a smartphone the tiles are shown one below the other.

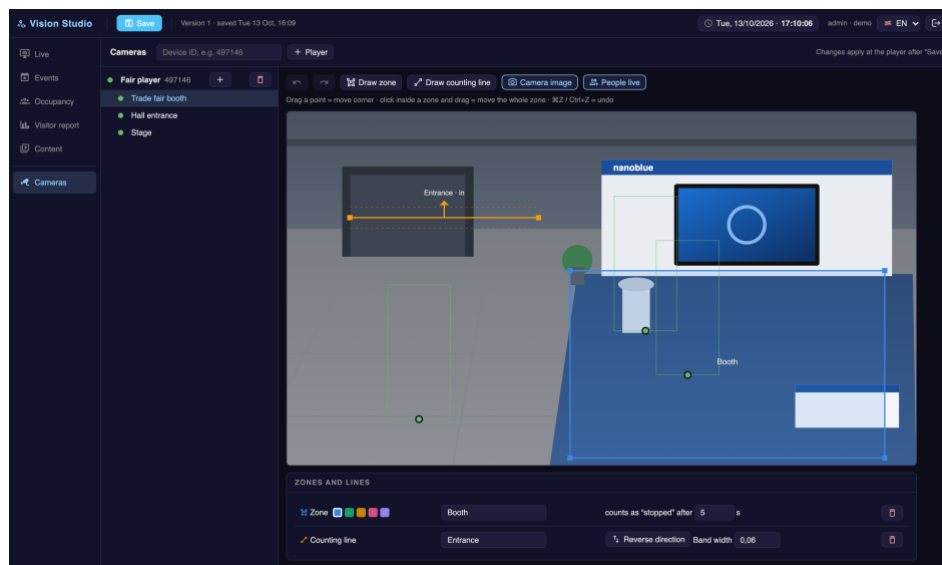
- **Date and time of the player** are always shown in the header – with a warning if a player’s clock deviates.



Live view while arranging: the booth large, room “Showroom”, entrance and stage next to it; drag a tile by its header to move it, drag the bottom-right corner to resize it (example image).

Setting up cameras

- **Draw zones and counting lines directly on the camera image** – set points, move them, move whole zones, each zone in its own colour, undo and redo.
- **Detected people live** in the image – so you can check immediately whether zones and lines are in the right place.
- **Direction of the counting line** visible as an arrow and reversible; a counting band prevents double counting when someone stops in the doorway.
- **One click on “Save”** transfers the settings to the players immediately.



Camera editor with “Booth” zone, “Entrance” counting line and detected people (example image).

Camera monitoring

The studio always shows whether each camera is working – and reports faults in a notice bar at the top and, if desired, via Telegram and browser push:

State	Meaning
delivering data	people are being detected (with frame rate)
ready	camera reachable, nobody in view right now
not reachable	camera does not respond on the network
Player not reachable	connection to the media player interrupted

Reliable in operation

- **Autonomous:** counting, occupancy, traffic light and Interactive UI run on the player – even without internet.
- **Nothing gets lost:** the player stores the per-minute values for three days and delivers them as soon as the connection is back.
- **Restart-proof:** occupancy and settings are kept through power failures and restarts.

Data protection

- Person detection runs inside the camera. Only positions of people reach the player, no images.
- People only receive a random number while they are in view. There is no re-identification, no face recognition and no attributes such as age or gender.
- Only figures per minute are stored and transferred to the cloud, e.g. “7 people detected, 2 stopped”.
- The camera image is only used in the studio for set-up and is not recorded.

Note: Whether additional obligations apply on site, e.g. a sign, is clarified by the operator with their data protection advisor.

Technology in brief

- nanoblu Vision Sensor: edge AI camera with its own AI processor (3 TOPS NPU), 8 MP, Gigabit Ethernet with PoE; person detection on the device, output via MQTT.
- Vision Engine as a flow in the nanoblu editor on the media player: tracking of people, zones, counting lines, occupancy, traffic light, Interactive UI.
- Vision Studio on the nanoblu Core; connection to the players encrypted via the nanoblu VPN.
- Web-based, integrated into the nanoblu portal, own login, multi-tenant with permissions per device; user interface in German, English and Spanish.

Typical applications

- Trade fair booths and exhibitions: visitor report per fair day for exhibitors and organisers.
- Shops, showrooms and museums: entry traffic light with limited capacity, identify peak times.
- Event and meeting rooms: live occupancy, notice when overcrowded.
- Digital signage and advertising: proof of which content reaches how many people; compare variants.
- Interactive shop windows: content and layouts react to the number of people.

In preparation

Gesture control for the Interactive UI, e.g. swiping behind a shop window · Security Studio with recording, retention and access log · Attention: whether people actually look at the screen.