



CROWD PEOPLE COUNTER

(CANON VIDEO ANALYTIC SOFTWARE)

Canon Europe Ltd.
2020

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PRODUCT OVERVIEW

CROWD PEOPLE COUNTER

Area Counting

Counting people in specified area



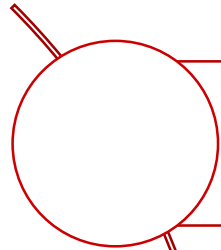
Massive Number

Real Time

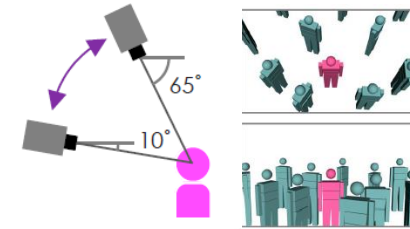
Great Accuracy

Canon

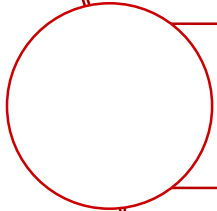
KEY FEATURES



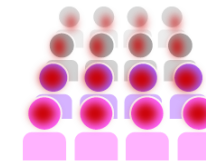
Flexible camera capture position
Ideal for **outdoor / open area** application



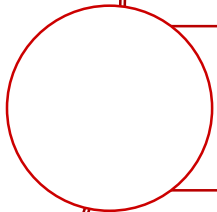
10° – 65°



Count number of heads (not body)
Suitable for **high density crowd counting**



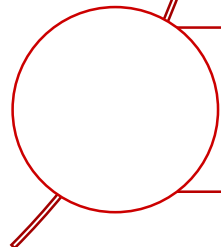
Heads
to be counted



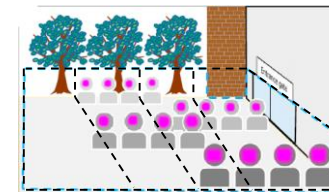
Only 15 pixels required for person's width
Enable to **cover wide area**



15 pixels or more
approx. 37.5 pixel/m



Easy segmentation of counting area
Useful for **area based crowd management**



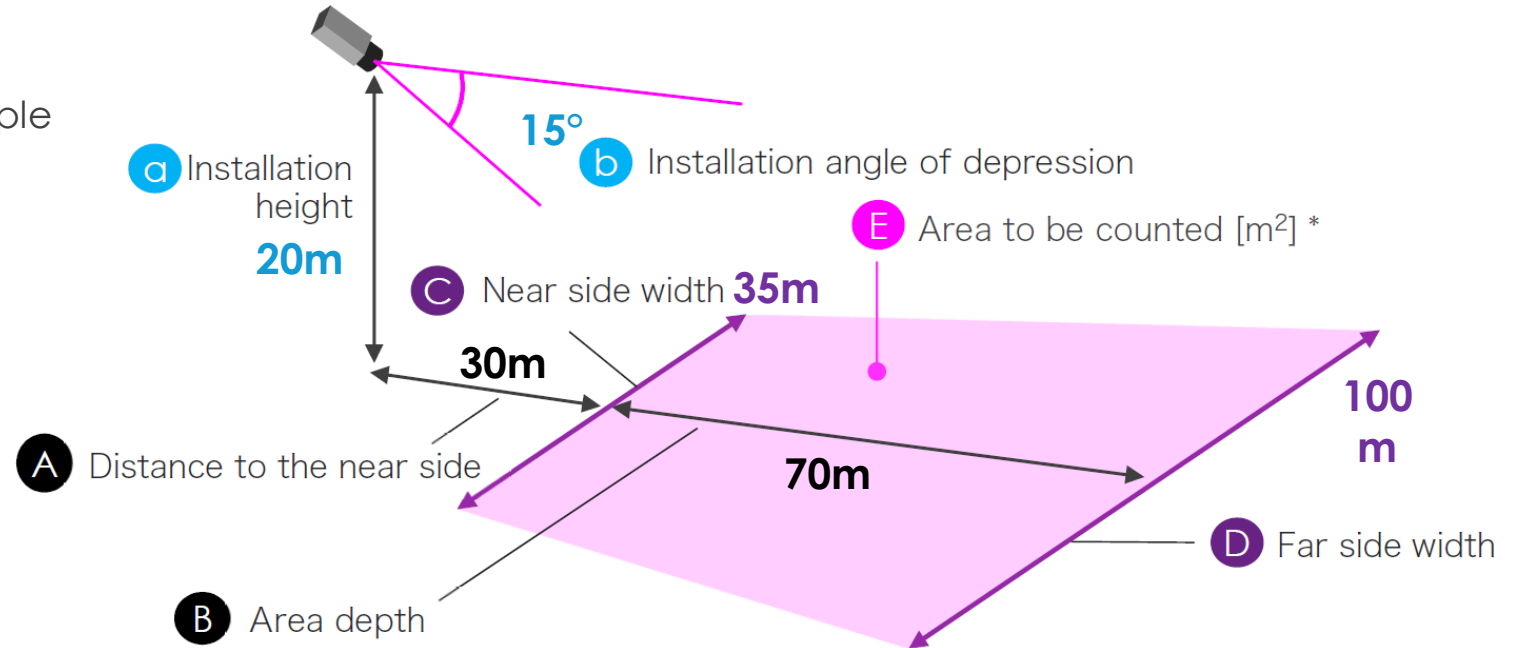
up to 4 areas

EXAMPLE OF COUNTABLE AREA

Approx. **4875** m²

can be covered by 1x camera at this example

- Camera
 - 4K (3840 x 2160)
 - 50.1° (Horizontal AoV)
- Installation
 - 20m (Installation height)
 - 15° (angle of depression)



The **higher resolutions** camera you choose, the **wider area** can be analysed.
Refer to [Optimizing Performance Guide](#) for details and other examples.

OUR TARGET SEGMENT

Target

Outdoor

Location

Indoor



Sidewalk



Retail



Outdoor Event



Airport / Station

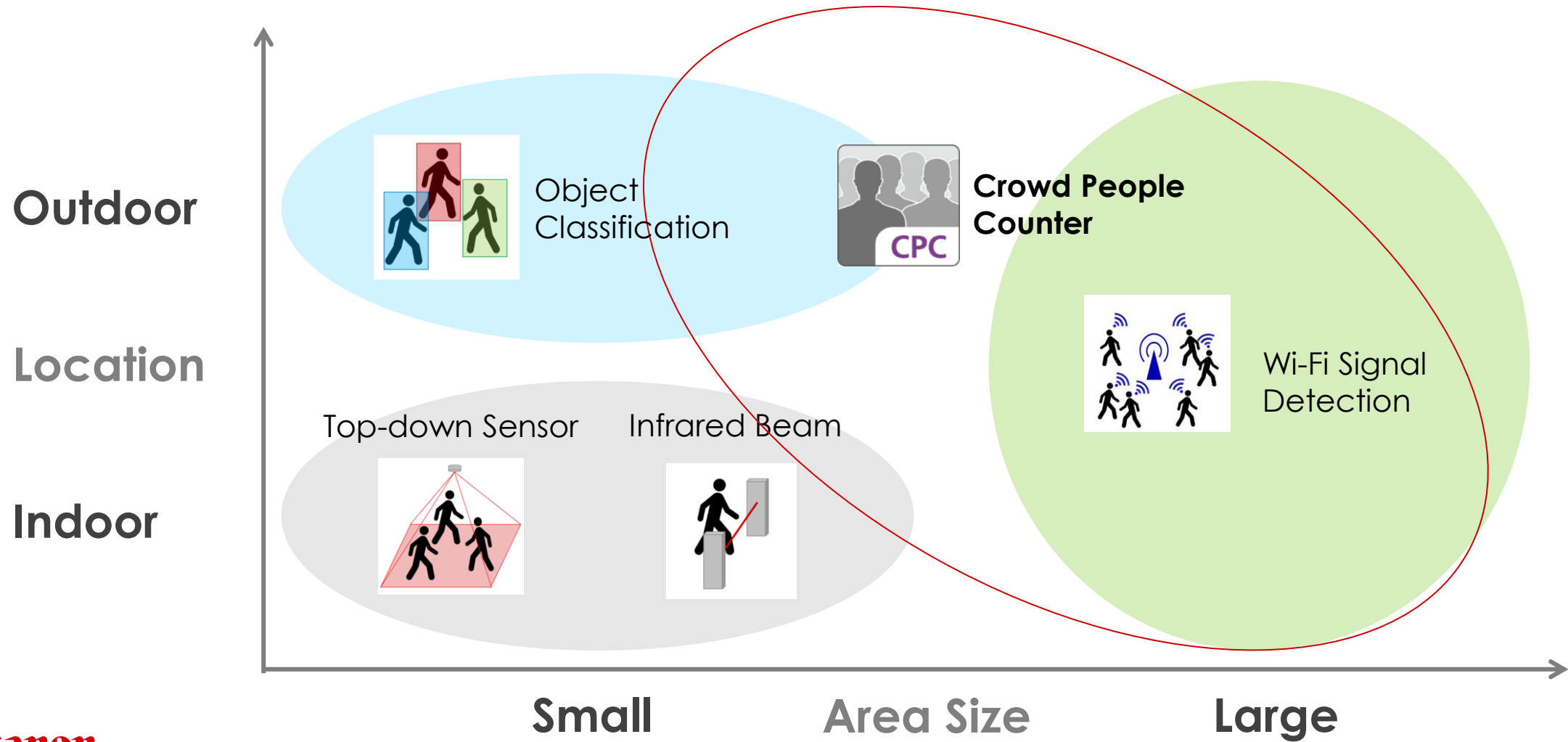
Small

Area Size

Large





Canon

POSITIONING OF CROWD PEOPLE COUNTER



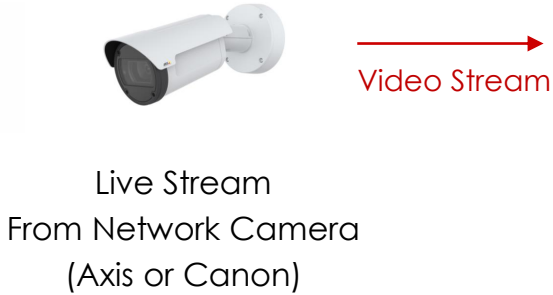
SYSTEM LAYOUT

PLATFORMS

Product and Platform	Crowd People Counter 	Crowd People Counter for Milestone XProtect 
Number of video stream per license	1	1
Camera Type	Canon / Axis	Any Camera (While connected to Milestone Xprotect)
Live Analysis	✓	✓
Post Analysis		✓ (using recorded video)
Schedule		✓
Maximum Resolution	5472x3648 	5472x3648 
Output Report	✓ (CSV, Jpeg)	✓ (CSV, Jpeg)
Historical Chart	✓ (Temporary use only)	✓
Event Notification	*	✓

* currently not supported, under consideration

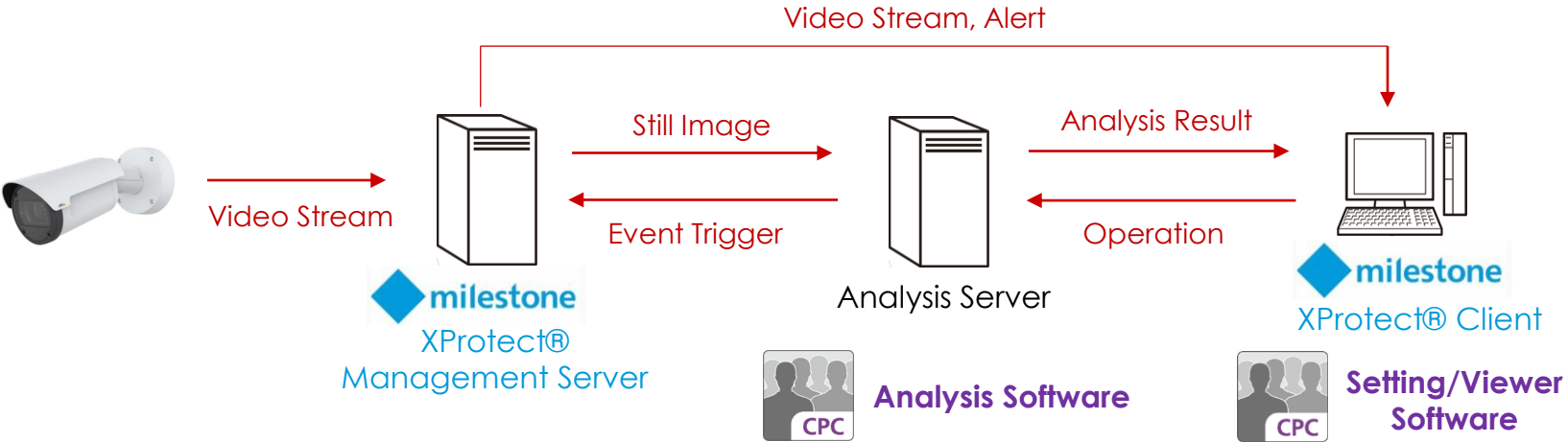
SYSTEM CONFIGURATION



currently not supported, under consideration



3rd Party VMS Server, etc.

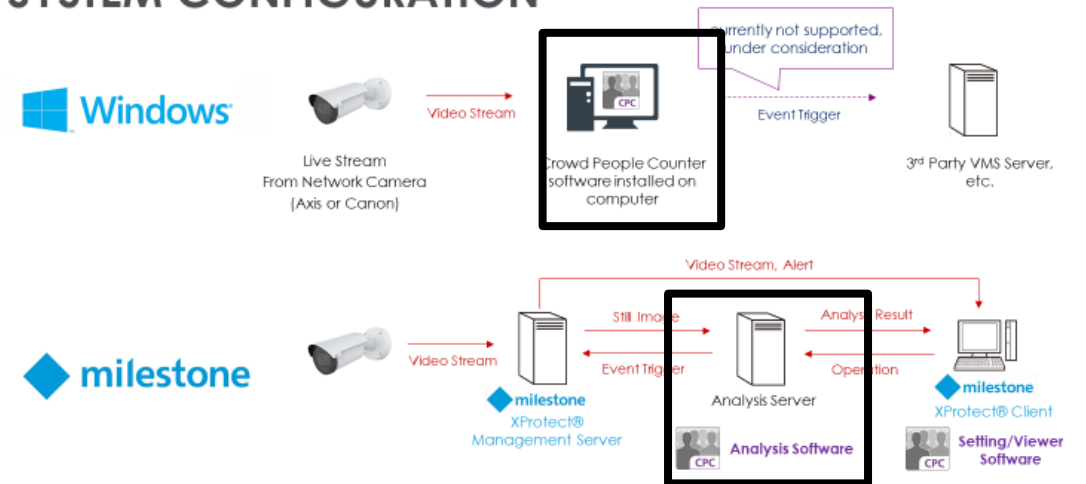


SYSTEM REQUIREMENT FOR ANALYSIS PC

- CPU : **Intel Core i7-6700 or higher** (4 cores or more, HT technology compatible)
- Memory : **16 GB or more**
- Storage: The amount of space needed for data output

Amount of output data
= JPEG image file size x period
between start and end of analysis
(sec.) / analysis interval (sec.)

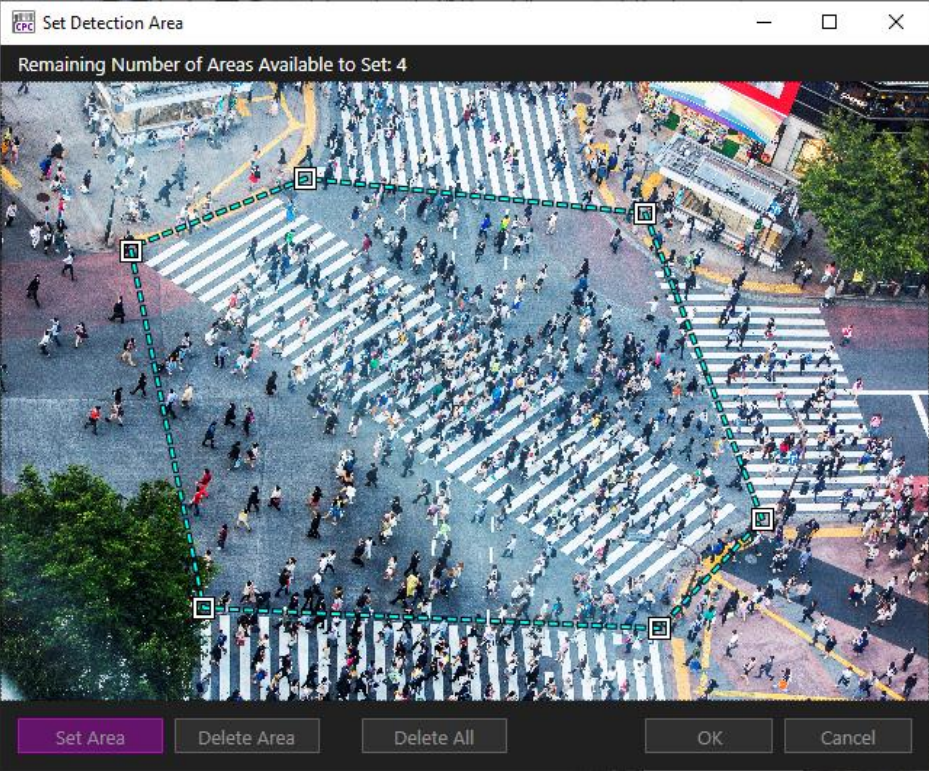
SYSTEM CONFIGURATION



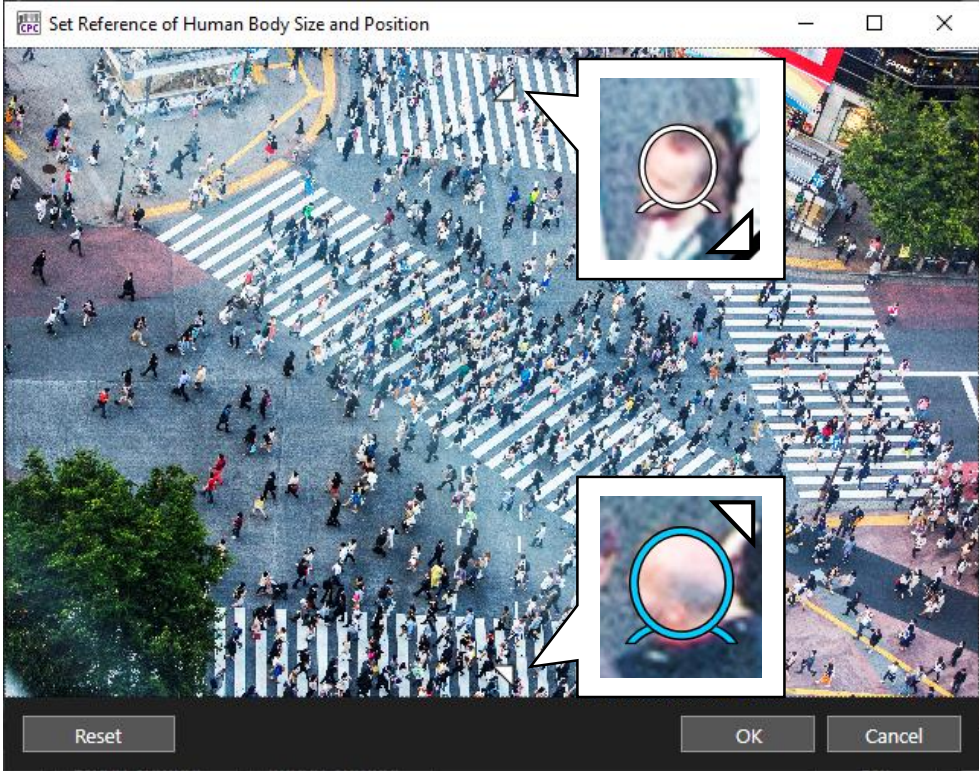
With this PC spec, up to **5 streams*** can be analysed at the same time.
(* 5 licenses needed)

SIMPLE & EASY SETTING FOR ANALYSIS

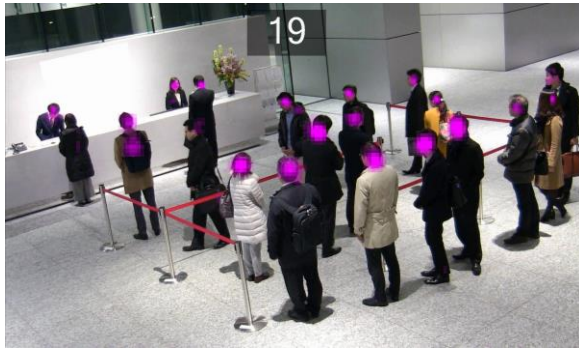
Detection area setting



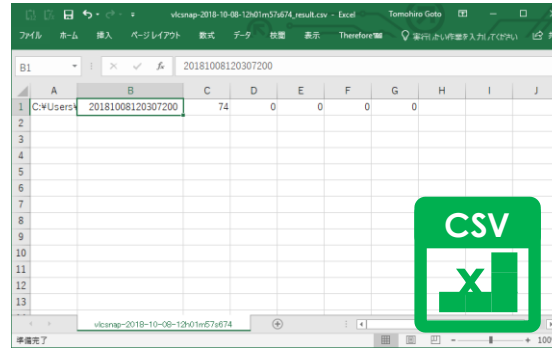
Human body size setting



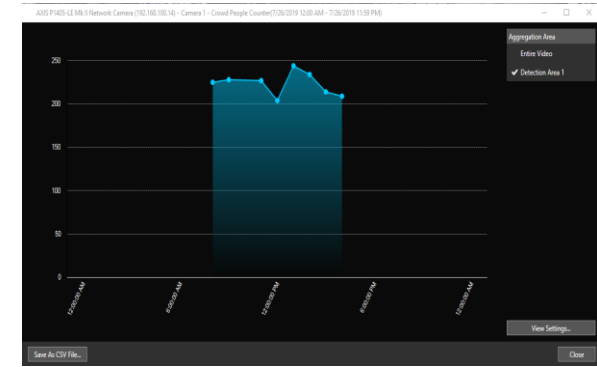
OUTPUT FROM SOFTWARE



JPEG file



CSV file



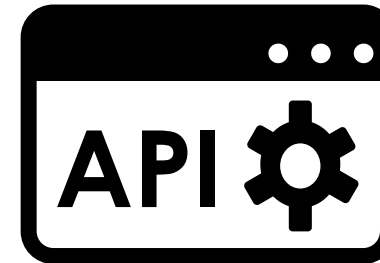
Chart

*only for temporarily use, cannot be saved



Alerting
(XProtect Alarm Manager)

Currently only available
for XProtect version

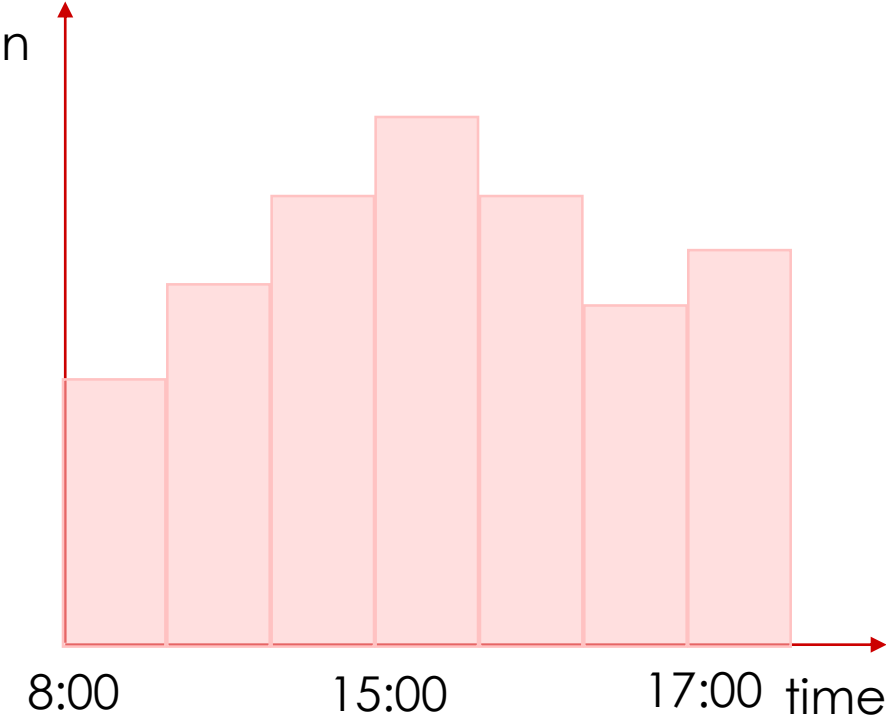


Web API
(JSON)

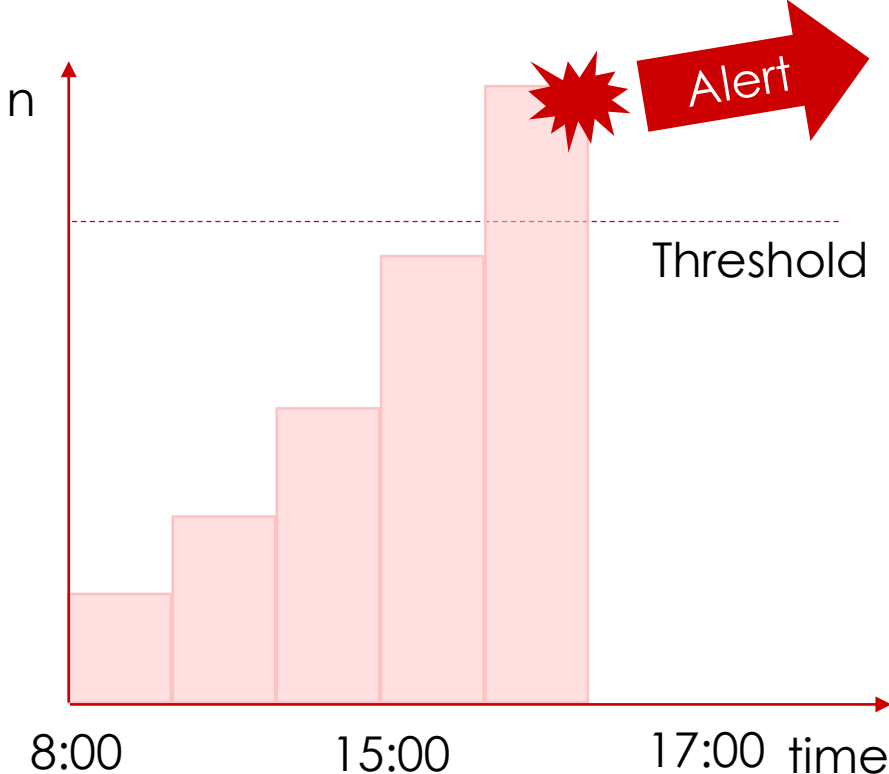
Currently only available
for XProtect version

TYPICAL APPLICATION

Obtaining statistics



Real time monitoring and alerting



*Currently only available for XProtect version

LICENSE TYPE

License Type	Description	License Access Number
Trial License	For trial usage only License expires in 60 days and can NOT be extended	NOT Required
Standard License	For real operation usage License doesn't expire 1x simultaneous video stream analysis / license	Required

RECOMMENDED AXIS CAMERAS

RECOMMENDED AXIS CAMERAS



Q1798-LE

- 4K/10MP high resolution provides accurate counting in wide area
- 4.0 times remote optical zoom makes it flexible to set appropriate wide angle
- Lightfinder 2.0 eases the difficulties of analysing dark environment

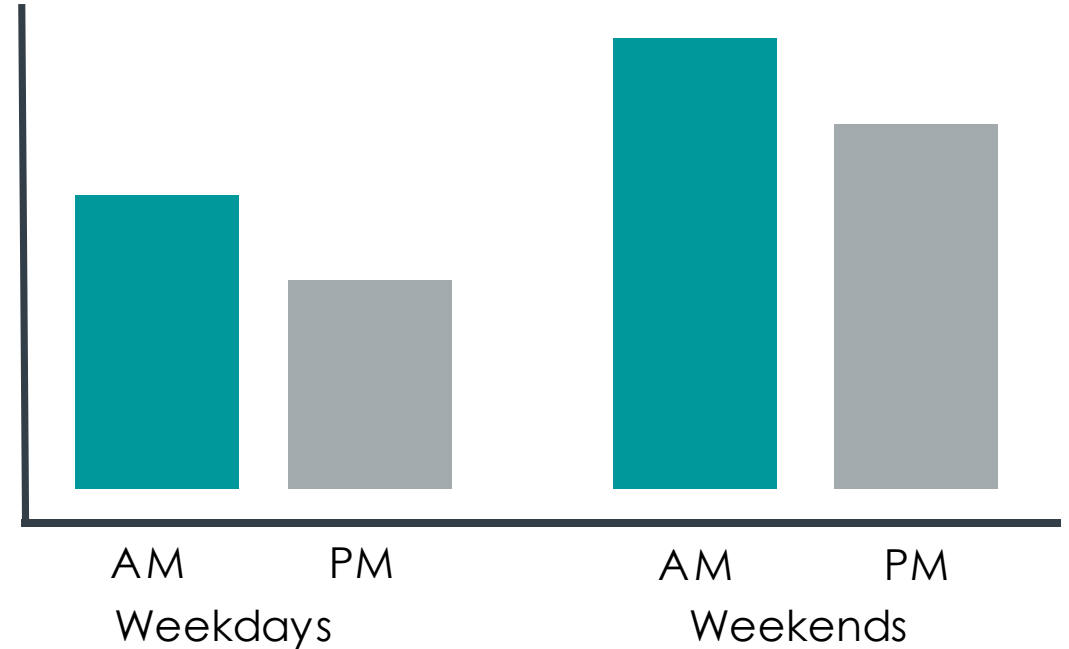


Q1659

- 20MP high resolution enable counting in great wide area
- Multiple choices of EF lens according to different environment

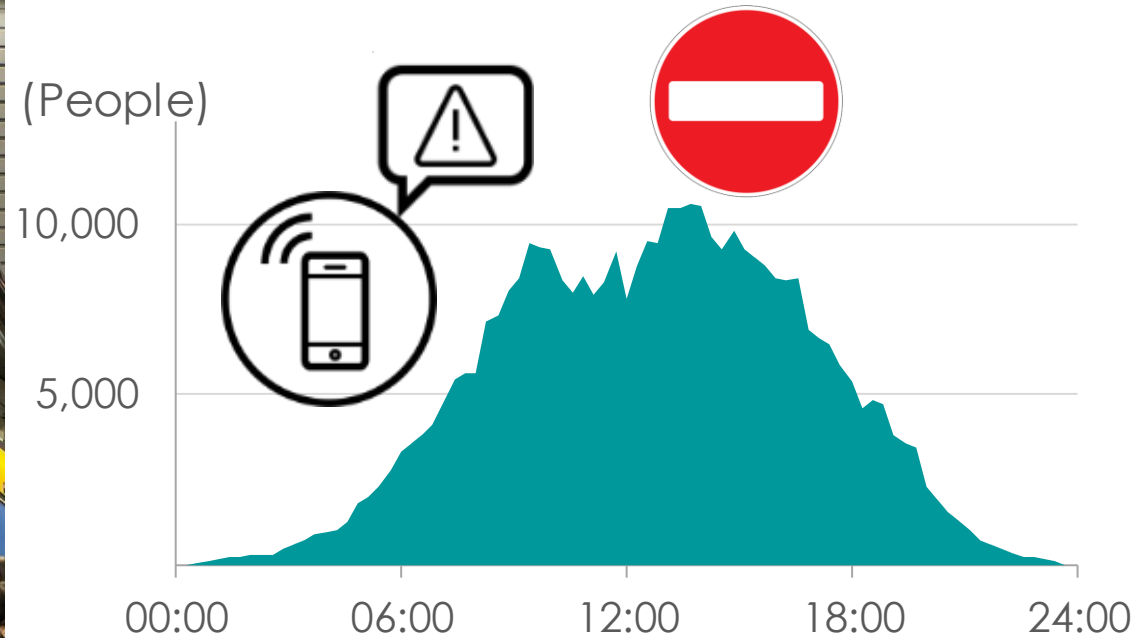
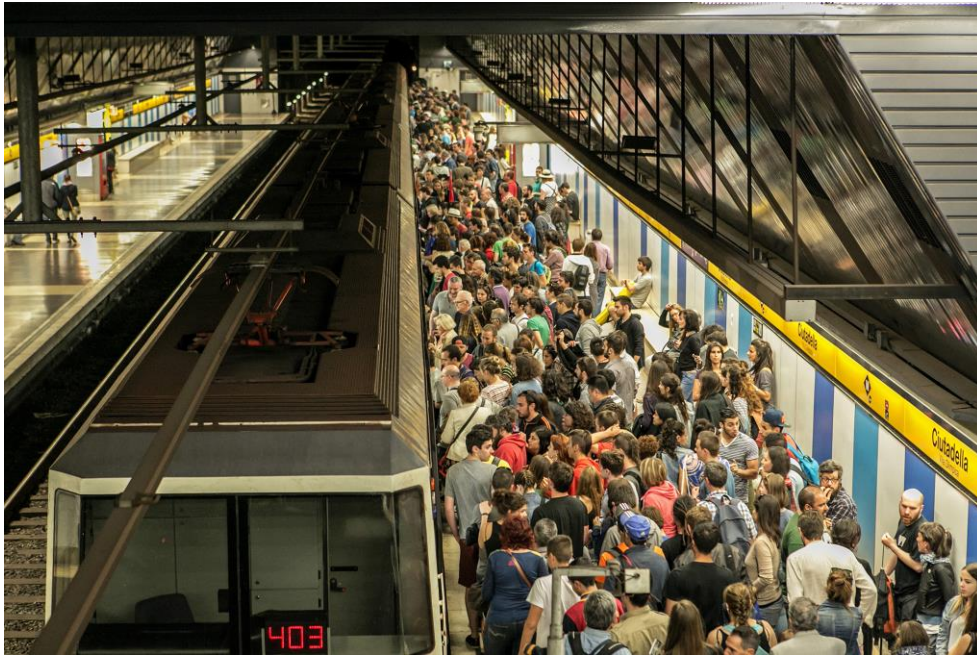
USE CASES

USE CASE 1 – EVENT MANAGEMENT



Discover valuable trends by analysing footfall data over time, allowing improved management of staffing to cover busy and quiet periods.

USE CASE 2 – PUBLIC SAFETY

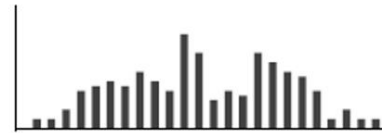


Monitor people movement in real time to implement safety measures when needed, by automatic alerts to security staff and closing entrances. * Alert function is available for Milestone version only

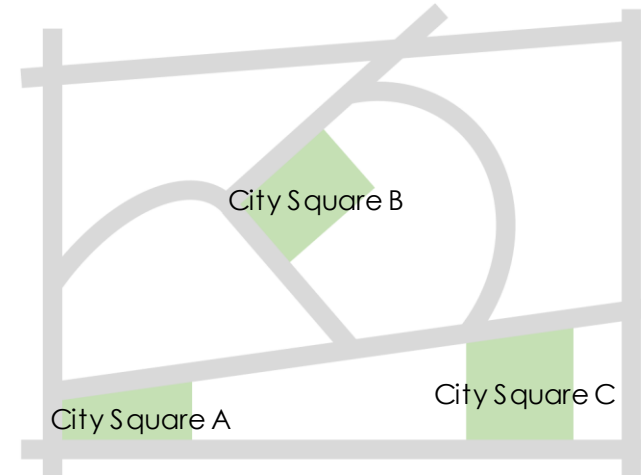
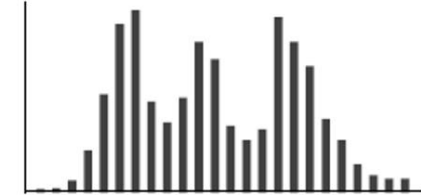
USE CASE – CITY PLANNING



People headcount at point A



People headcount at point B



People headcount at point C



Discover precise statistical trends of people headcount in specified areas such as city squares, commercial districts, or railway stations, to improve city infrastructure.

SPECIFICATION

SPECIFICATION – WINDOWS VERSION

SOFTWARE SPECIFICATION

Requirements for input data

[Live Video]
Compatible Cameras: Canon Network Cameras, Axis Network Cameras listed in supported cameras
Video Format: JPEG
Highest Resolution: 5472 x 3648
Communication Protocol:
IPv4 (IPv6 not supported), HTTP

Analysis interval

Select from [Not Specified, 1/30, 1/25, 1/20, 1/15, 1/10, 1/5, 1/2, 1, 2, 5, 10, 15, 20, 25, 30, 60, 600, 900, 1800, 3600](sec.)

Detection area

Up to 4 detection areas.
(Polygon consisting of 3 to 8 points).

Output

Analysed still image file (JPEG), analysis results file (CSV), aggregated results file (CSV), log (CSV)

Interval selection for analysis file

Select from [Do Not Create New File, 1min., 5min., 10min., 15min., 30min., 1hour, 2hours, 4hours, 8hours, 12hours, 24hours].

Aggregation interval of analysis result files

Select from [10 min., 15 min., 30 min., 1 hour].

Preview of analysis results

Display counted result on the screen.
Display aggregated result on the chart.

Settings information

Number of pixels necessary for detecting

Possible to import and export
15 pixels for a person's width

Angle Looking Downward on People (Angle of Depression)

10° – 65°

OPERATING ENVIRONMENT

Recommended PC specifications

CPU : Intel Core i7-6700 or higher
(4 cores or more, HT technology compatible)
Memory : 16 GB or more
Storage: The amount of space needed for data output
When outputting JPEG files, one JPEG file is output for each analysis interval, the amount of data from the start till the end of analysis can be calculated by the following formula. Amount of output data = JPEG image file size* x period between start and end of analysis (sec.) / analysis interval (sec.)
*A JPEG image file size can vary widely, depending on the resolution of the input video, background and colour of the image.

Operating system

Windows 8.1/Windows 8.1 Pro/Windows 8.1 Enterprise 64-bit
Windows 10 Pro/Windows 10 Enterprise/Windows 10 Home 64-bit
Windows Server 2012 Standard 64-bit
Windows Server 2012 R2 Standard 64-bit
Windows Server 2016 Standard 64-bit

Required Software

.NET Framework 4.5.2

Supported language

Japanese/English/Italian/Spanish
*Linked to the language of OS. Displayed in English for other regions.

SPECIFICATION – XPROTECT VERSION

SOFTWARE SPECIFICATION

Requirements for Input data

Supported cameras: Milestone XProtect Compliant
Live/recorded video from network cameras registered to Milestone XProtect
Highest Resolution: 5472 x 3648

Analysis interval

Select from [1, 10, 30 (sec.), 1, 5, 10, 15, 30, 60 (min.)]

Detection and Non-detection area

Respectively up to 4 detection areas.
(Polygon consisting of 3 to 8 points).

Output

Analysed still image file,(JPEG)*¹, analysis results file (CSV) *¹,
analysed data (JSON)*², log (CSV)
*¹Possible to download analysis results data to XProtect Client
*²An external system necessary to enable Web API to acquire an analysed data.

Interval for creating analysis results files(CSV)

Select from [Do Not Create New File, 1min., 5min., 10min., 15min., 30min., 1hour, 2hours, 4hours, 8hours, 12hours, 24hours].

Preview of analysis results

Display counted result on the screen.
Displays aggregated result as graph.

Event notification

Events are notified when triggered by thresholds.
Possible to set 2 levels of thresholds. Thresholds can be for a camera or for an aggregated results* of multiple cameras(2 to 5).
*Possible to set Multiple camera notification up to 8 sets.

Schedule setting

Up to 20 schedules can be set.
Up to 5 schedules can be set for a camera.
Run history can be saved as a text file.

Number of pixels necessary for detecting

15 pixels for a person's width

Angle Looking Downward on People (Angle of Depression)

10° – 65°

OPERATING ENVIRONMENT

Recommended PC specifications

CPU : Intel Core i7-6700 or higher
(4 cores or more, HT technology compatible)
Memory : 16 GB or more
Storage: The amount of space needed for data output

When outputting JPEG files, one JPEG file is output for each analysis interval, the amount of data from the start till the end of analysis can be calculated by the following formula.
Amount of output data = JPEG image file size* x period between start and end of analysis (sec.) / analysis interval (sec.)

*A JPEG image file size can vary widely, depending on the resolution of the input video, background and colour of the image.

Operating system

Windows 10 Pro/Windows 10 Enterprise 64-bit
Windows Server 2012 Standard
64-bit
Windows Server 2012 R2 Standard 64-bit
Windows Server 2016 Standard 64-bit

Required Software

[For Analysis Server]
.Net Framework 4.6.1
SQL Server Express 2016
Visual C++ 2015 Runtime Library
[For XProtect Client]
.Net Framework 4.5.2

Supported language

Japanese/English/Italian/Spanish
*Linked to the language settings of Milestone XProtect Smart Client.
Displayed in English for other languages than listed above.

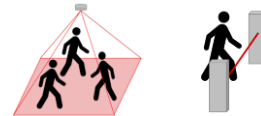
Thank you very much

COMPETITIVE ANALYSIS

Crowd People Counter



Top-down Sensor /Infrared Beam



Object Classification



Wi-Fi Signal Detection



	Crowd People Counter	Top-down Sensor /Infrared Beam	Object Classification	Wi-Fi Signal Detection
Outdoor / open area application				
High density crowd counting				
Wide area coverage				
Area based crowd management				