4) Relaunch Of MxAnalytics*

Relaunch Of The Video Analysis Tool

How many people go in and out of which entrance during the day? How many people take the stairs and how many take the elevator? MxAnalytics – the camera-integrated video analysis tool designed by MOBOTIX – is being relaunched, starting with the Q25M-Sec, offering valuable added information users can leverage to optimize processes or for marketing purposes.

MxAnalytics makes it possible to collect statistical behavior data on people and objects. This is done by defining recognition zones (full live feed or a partial area) and counting corridors. The camera then records how often each counting corridor is crossed within a specified period. The most frequented areas in the recognition zone are highlighted in color as a heat map.

MxAnalytics can be activated and deactivated manually, based on a signal, or following a time table. The results are saved in the camera every 15 minutes and can be exported manually or at specified times (report profiles). Only around 30 MB per day or 1 GB per month of the camera's internal memory are required for continuous analysis.

MxAnalytics Available Via Firmware Update As Of Monday, 23 February 2015 (MX-V4.3.2.x_vca)

MxAnalytics is available **for free, initially for all Q25M-Sec** (with L12 or L25 lens, day or night version), **via firmware update** to **version MX-V4.3.2.x_vca** published at www.mobotix.com on **23 February 2015**. Starting on this date, MxAnalytics will be integrated into all Q25M-Sec by default. **Later firmware versions will make MxAnalytics available for other MOBOTIX camera models.**

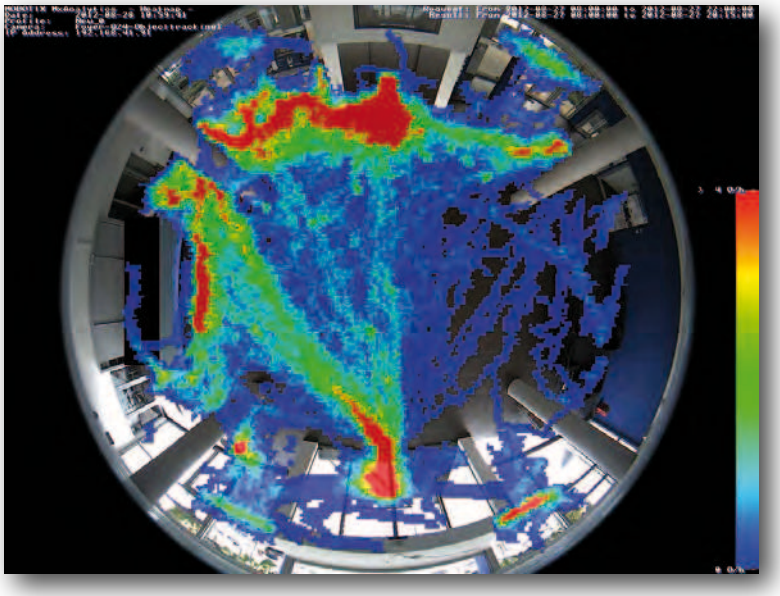
For more information and news, please see the **release notes** of the firmware on the MOBOTIX website: **www.mobotix.com > Support > Software Downloads > Cameras > MX-System Release 4.3.2.x_vca**

Tips & Tricks for optimized analysis results are provided in the **Compact Guide: MxAnalytics**, which will be available on the MOBOTIX website as a PDF file as of 23 February 2015: **www.mobotix.com > Support > MX Media Library > Compact Guide**

* MxAnalytics is a trademark of MOBOTIX AG registered in the European Union, the U.S. and in other countries.

Visualize Highly Frequented Areas (Heat Maps)

Which shelves in the shop are attracting the most customers this Saturday? Which paintings by the new artist hold the attention of the visitors most? Which waiting areas in the departure hall are preferred in the afternoon? All movements of objects of a particular size are recorded and evaluated, either in the live image or in a previously defined detection area, to provide answers to questions like these. The frequency of the movements is shown visually by means of different colors in a heat map.



Count People And Objects (Counting Corridors)

You can define counting corridors in appropriate locations in the camera feed to find out, for example, how many people walk in and out of each entrance of a shop over the course of a week (the system always generates two counts). The camera records how often each counting corridor is crossed within a specified period. The reliability of the count depends (a) on the similarity of the sizes and shapes of the persons or objects in the image, (b) on the distance between these (in terms or time or spatial distance), (c) on how effectively they can be visually distinguished from the underlying background, and (d) how close the counting corridor is to the center of the image (camera focus).

New In MxAnalytics 2015: Defining Counting Corridors

The three factors that define a counting corridor in the live feed, **direction**, **length** and **width**, are easily configured using the shift and control key (Shift and Ctrl) and a mere **three clicks of the mouse**:

Click 1 (for 1st reference point):	Shift+Ctrl+mouse click
Click 2 (for length and direction):	Ctrl+mouse click
Click 3 (for width):	Single mouse click

Clicks 2 and 3 can be corrected (repeated) at any time. When redoing click 1, the other points are cleared.

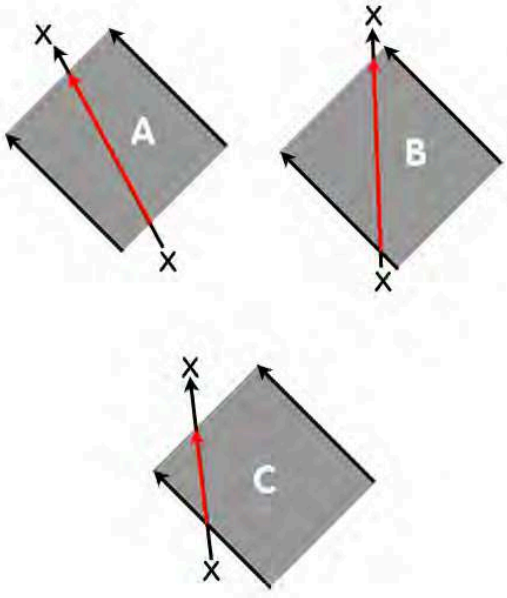
The image shows a counting corridor at the entrance of a foyer, indicated by two yellow arrows, which was defined with three mouse clicks (click 1–3): **Click 1** defines the first reference point, **click 2** determines the north direction and length of the corridor, while **click 3** defines the width. The system counts all objects that cross the entire corridor (from north to south and vice versa). Since the counting started, 444 people entered the foyer (green upper number in the center of the corridor; i.e., objects crossing the corridor alongside the arrow towards the north), and 519 people crossed the counting corridor in the opposite direction (red bottom number, movement from top to bottom).

Examples Providing Additional Details

Image A: Object x crosses the counting corridor and is **counted**. It will even be registered if the object moves very quickly or remains within the counting corridor for a long time before leaving it.

Image B: Object x enters the corridor somewhat to the side of the lower border, but the distance covered within the corridor (red line) is long enough for the system to **count** it.

Image C: Object x enters the corridor even farther up and to the side of the lower border. The distance covered within the corridor is too short, so the system **does not count** it.



MxAnalytics – Highlights
Live analysis locally in the camera, without network load
No additional devices like computers, servers or black boxes required
Free video analysis software with no usage restrictions
Also available for previously installed Q25M-Sec cameras via firmware update
User friendly thanks to easy configuration and operation

MxAnalytics – Highlights
Automatic counting corridor and heat map reports
Counting corridor solution can be configured to only count objects that move in a predefined direction (e.g., people who directly move from a supermarket's entrance to a shelf with special offers)
Up to 16 different counting corridors can be defined and evaluated in parallel for each camera

MxAnalytics: Technical Specifications And Requirements	
Camera	Q25M-Secure with day or night sensor
Camera firmware	Version 4.3.2.x VCA (VCA: Video Content Analysis)
Lens	L12 (180° × 160°) or L25 (82° × 61°)
Camera view	Full image (recommended)
Resolution	VGA (recommended)
Installation site	Ceiling mounting indoors (wall installation not recommended)
Installation height for L12 lens	2.5–6 m
Installation height for L25 lens	6–10 m
Storage location	Camera-integrated microSD card, specially formatted for MxAnalytics
Max. storage requirement	1 GB/month (to save MxAnalytics results data daily and around the clock)
MxAnalytics activation	- Manual (on/off) - Via time table (for example, Mon–Fri, 8 a.m.–6 p.m.) - Via camera signal inputs (for example, possible with MX-Input-Box)
Counting precision	Very high given suitable lighting conditions and when individual persons/objects are far enough apart
Detection areas (for heat maps)	1 to n areas individually definable (defined areas can be excluded)
Heat maps and counting corridors	- Results selectable by report profile - Automatic e-mail notification or FTP upload - A maximum of 16 counting corridors can be defined
Report profiles	Freely configurable, predefined default profiles (day/week/month)
Export format	- Heat map: JPEG (displayed in last live image or reference image) - Counting corridor report: HTML or CSV (table view)
Specific information	It is no longer necessary to define an "event dead time" to ensure correct counting

Camera Firmware 4.3.2.x VCA (Video Content Analysis)

Product Designation	Description	MSRP in EUR	Available online as of
Firmware 4.3.2.x VCA	Camera firmware version 4.3.2.x VCA with built-in MxAnalytics video analysis tools for all Q25M-Sec cameras • Download free of charge from the MOBOTIX website. www.mobotix.com > Support	0	23 Feb. 2015