



MOBOTIX Glossary

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3

3D laser scanner

A 3D laser scanner scans real objects or their real environment. In 3D scanning, a real object and its environment is analyzed to collect data on its shape and possibly its appearance. Digital 3D models can then be created from the collected data.

A

AI-BIO

AI-BIO is an app for recognizing the gender and estimating the age of a person by analyzing the face.

AI-CROWD

AI-CROWD is an app in that can be used in crowded areas where persons can stop or move slowly, even determining queuing situations. It allows to estimate the number of persons inside one or more areas of interest.

AI-CROWD-DEEP

AI-CROWD-DEEP is a video analysis app in based on deep neural networks, that allows to analyze the people in an area, even in very crowded situations. The solution, not being based on the analysis of the movement, does not suffer from disturbances due to the movement of the camera that takes the scene.

AI-CROWD-PLUS

AI-CROWD-PLUS is a bundle with two different products, which are installed simultaneously on one camera, consisting of the apps AI-CROWD and AI-OVERCROWD.

AI-FACEDETECT-DEEP

AI-FACEDETECT-DEEP is a video analytics app able to detect the faces of the persons inside the scene. It is also able to distinguish faces with mask from faces without mask. It implies that the plug in can be used for both statistical (in order to know the number of persons inside an area) and security purposes

AI-FIRE

AI-FIRE is an app for the detection of flames in outdoor environments, such as urban forests, parks and so on. It generates events that can be managed by all the notification channels. It uses information about the color, so it cannot be used with thermal cameras; for the same reason, the performance may decrease during the night.

AI-HEAT

AI-HEAT is an app for classifying the areas depending on the time spent by moving people inside the areas of interest, thus allowing to distinguish between the most visited areas (hot spots) and the less crowded ones (dead areas).in indoor and outdoor environments. It generates periodic heat maps that can be managed by AI-Dash and AI-Dash Embedded. It can be used also with thermal and fisheye cameras.

AI-INCIDENT

AI-INCIDENT is a video analytics app for monitoring the road traffic in real-time; thus, the environmental conditions will affect the performance of the application. It is able to detect the presence of pedestrians, stopped vehicles, queuing or vehicles crossing a road in the wrong direction. It generates events that can be managed by all the notification channels.

AI-INTRUSION

AI-INTRUSION is a video analytic app that is able to detect intruders in indoor and outdoor environments; thus, the environmental conditions will affect the performance of the application.

AI-LOITERING

AI-LOITERING is a video analytic app that is able to detect loitering in indoor and outdoor environments; thus, the environmental conditions will affect the performance of the application, FTP servers and third party servers.

AI-OCCUPANCY

AI-OCCUPANCY is a video analytic app that is able to detect abandoned or removed objects in indoor and outdoor environments; thus, the environmental conditions will affect the performance of the application.

AI-OVERCROWD

AI-OVERCROWD is a video analytic app that can be used to detect overcrowding inside one or more areas of interest in typical retail scenarios; of course, the position of the camera and

the environmental conditions will affect the performance of the application.

AI-OVEROCCUPANCY

AI-OVEROCCUPANCY is the video analysis app for the detection of overoccupancy in one or more areas inside the scene in indoor and outdoor environments. It generates events that can be managed by all the event notifiers. It can be used also with thermal cameras.

AI-PARKING

AI-PARKING is a video analysis solution for monitoring parking areas, perimeter and non-perimeter. It assesses whether a parking spot is free or occupied. It needs information about the color, so a thermal camera is not suitable for this app. It generates events that can be managed by all the notification channels.

AI-PEOPLE

AI-PEOPLE is a video analytic app optimized to count people crossing a gate in typical retail scenarios. It generates events that can be managed by all the notification channels.

AI-RETAIL3

AI-RETAIL3 is a bundle including three different products, simultaneously installed on board of your camera: AI-PEOPLE: People counting through gate AI-CROWD: Crowd estimation AI-OVERCROWD: Overcrowding detection for queue management

AI-ROAD-3D

AI-ROAD-3D is a video analytic app optimized to monitor the road traffic in real-time; thus, the environmental conditions will affect the performance of the application.

AI-SECURITY

AI-SECURITY is a bundle including three different products, simultaneously installed on board of your camera: AI-INTRUSION: Intrusion detection in sterile zone and virtual line crossing AI-LOST: Abandoned or removed objects detection AI-LOITERING: Loitering detection in forbidden areas

AI-SMOKE

AI-SMOKE is an app for the detection of smoke in outdoor environments, such as urban forests, parks and so on. It generates events that can be managed by all the notification channels. It uses information about the color, so it cannot be used with thermal cameras; for the same reason, the performance may decrease during the night.

AI-SPILL

AI-SPILL is an app for detecting falls in indoor environments like hospitals or apartments. It generates events that can be managed by all the notification channels. Since the app uses information about the color, thermal cameras are not allowed.

AI-TRAFFIC

AI-TRAFFIC is a bundle including three different products, simultaneously installed on board of your camera. AI-ROAD-3D: gathering of traffic statistics AI-INCIDENT: road monitoring for security purposes

artificial intelligence

Artificial intelligence is a branch of computer science that deals with the automation of intelligent behavior and machine learning.

B

backlight compensation

A feature on cameras that prevents underexposure when the subject is backlit by a light bright enough to distort the camera's normal exposure meter.

C

CCD sensor

CCD sensors are light-sensitive electronic devices based on the internal photoelectric effect. "CCD" is the abbreviation of charge-coupled device, which is used in the CCD sensor.

Certified Apps

Certified Apps are professional, deep learning based MOBOTIX apps and solutions from renowned partners, which are explicitly verified and certified by MOBOTIX.

connection protocol

A connection protocol (also called network protocol) is a communication protocol for the exchange of data between computers or processes (e.g. camera and pan-tilt heads with Pelco-D support) that are connected to each other in a computer network. It consists of a set of rules and formats (syntax) that determine the communication behavior of the communicating instances in the computers (semantics).

Custom Apps

Partners, customers and users of MOBOTIX AG can develop and program their own app solutions for the MOBOTIX 7 platform based on the MOBOTIX software and the Development Kit (SDK).

cyber security

Cyber security, also known as information security, refers to the properties of information processing and storage (technical or non-technical) systems that ensure the protection goals of confidentiality, availability and integrity. Information security serves to protect against dangers or threats, to avoid economic damage and to minimize risks.

D

deep learning

Deep learning is a method of machine learning that uses artificial neural networks (ANN) with numerous hidden layers between the input layer and the output layer, thereby creating an extensive

E

end-to-end encryption

End-to-end encryption (E2EE) refers to the encryption of transmitted data across all transmission stations. Only the communication partners (the respective end points of the communication) can decrypt the message.

exposure metering

Exposure metering in photography is the collective name for various methods of determining the appropriate combination of shutter speed and aperture to produce a correctly exposed image

F

face recognition

Face recognition is the analysis of the expression of visible features in the area of the frontal head, given by the geometrical arrangement and texture properties of the surface. In a technical context, face recognition is a biometric procedure. It is used for security, criminal and forensic purposes, for the identification or verification (authentication) of natural persons.

Typically, technical, computer-aided facial recognition is used to control access to security-sensitive areas and to search for duplicates in databases, for example in population registers to prevent identity theft.

focal length

The focal length is the distance between the main plane of an optical lens or curved mirror and the focus (focal point).

H

histogram

Graphical representation of a frequency distribution in the form of columns corresponding to the frequencies of the measured values (For example, the histogram of the MxManagementCenter shows a graphical representation of the distribution of the event frequency of one or more cameras).

M

MxPEG

MxPEG is a video codec and also a simple audio/video container format. MxPEG was developed by Mobotix in 2000. The goal was to have an encoder that could work on under-powered CPUs (for example, Intel StrongArm running at 206 MHz) and without any dedicated video compressing hardware. MxPEG was designed to be closely related to JPEG. Basically, it should add interframe compression where Motion JPEG (MPEG) only makes use of JPEG's intraframe compression. This typically yields a bandwidth reduced by two thirds, compared to Motion JPEG.

N

NAS

Network Attached Storage (NAS) refers to easy to manage file servers. In general, a NAS is used to provide independent storage capacity in a computer network without a lot of effort.

P

Pelco-D

Pelco-D is a popular PTZ (Pan / Tilt / Zoom) camera control protocol used in the CCTV industry.

privacy masking

Privacy masking is a function for protecting personal privacy in video images that is found in many IP cameras. The function can be used to hide or obscure parts of the image.

S

spot metering

Spot metering is a method of measuring exposure. Only a very small area of the viewfinder image is measured. The area that is measured is often shown in the viewfinder as a small circle and is approximately 2-4% of the viewfinder area.

V

video management system

A video management system, also known as video management software, is a component of a security camera system that typically collects video from cameras and other sources transmitting video in real time or storing it on a storage device provides an interface for both viewing live video and accessing recorded video.

video surveillance

Video surveillance is the observation of places by optical-electronic devices, optical room surveillance systems (video surveillance system).

video surveillance system

Video surveillance systems are used for observation with optical-electronic equipment. A main field of application of video surveillance systems is the surveillance of public or private rooms, traffic and technical installations of all kinds.

VoIP

IP telephony, or Voice over IP, is telephoning via computer networks that are built according to Internet standards. Typical telephony information, i.e. voice and control information for setting up a connection, is transmitted via a data network. (Wikipedia)

W

white balance

White balance is used to make the camera sensitive to the color temperature of the light at the shooting location. The digital recording of images (photo and film) and video technology - like analogue technology - allows a colour temperature adapted to the lighting conditions.

wide dynamic range

In a WDR (Wide Dynamic Range) image, several images are taken with different exposures and then combined to form an image with a higher dynamic range, so that details and structures can be seen even in dark areas.

Y

YUV

The YUV color model is used for analog color television according to the PAL and NTSC standards. It uses two components to represent the color information: the luminance (luma, luminous intensity per area, i.e. luminance) Y the chrominance (color portion, chroma), whereby this consists of the two sub-components U and V.

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