

MS-7VCA

MoviSight

TURNKEY ANALYTICS SOFTWARE

All-in-One, Stand-Alone Analytics Software

- +Rapidly add analytics functionality to a system, VMS, PSIM or NVR software.
- +Open and standard interfaces for rapid integration.
- +Also operates as a stand-alone server-based analytics solution.
- +Stream video directly from any IP camera or VMS via RTSP.
- +State-of-the-art Machine Learning and AI algorithms for tracking people, vehicle types and bags.
- +Full analytics metadata stream provided to facilitate forensic search or other value-added applications.
- +Deployable on Intel x86 and ARM hardware.
- + Customisable out-of-the-box HTML5 user interface for analytics configuration;
- + Configure rules and review events using your web browser on any device (via Chrome on Windows, Linux, Mac, Android).

MS-7VCA Software Engine is an all-in-one analytics server and reference design that enables the rapid integration of MoviSight AI tracking and classification technologies to 3rd party systems such as VMSs, NVRs and PSIM systems.

In standalone mode, MS-7VCA can stream video from a range of input sources and generate events in a range of formats.

MS-7VCA has been designed from the ground up to be easy to use and integrate. With video streaming, event alerting and an HTML5 configuration interface out-of-the-box, simple integrations can be completed in less than a week.

ANALYTIC & AI FEATURES



Zones



Tamper Detection



Object Tracker



Presence



Counting



Counting Lines



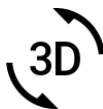
Hand Object Tracker



Logical Rules



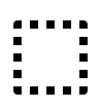
Meta Data



3D Calibration



Appear



Disappear



Direction



Dwell



Aggressive Behaviour



Fall Detection



Enter



Exit



Stopping Filter



Speed Filter



Abandoned Object



DL Skeleton Tracker



DL People Tracker



DL Object Tracker

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TECHNICAL SPECIFICATIONS

BEST-IN-CLASS ANALYTICS

Over 1,500,000 channels of MS-7 analytics have already been deployed on PC and embedded platforms. MS-7VCA software can upgrade any compatible IP camera, VMS, NVR or PSIM with a best-in-class analytics solution with minimum integration effort.

WEB-BASED CONFIGURATION INTERFACE

A HTML5 web-based interface supports the configuration of detection rules and notifications on desktop and mobile devices.

EASY INTEGRATION

Easy integration with a wide range of VMS, NVR and PSIM platforms over HTTP, TCP or email. MS-7VCA simple token-based message format provides relevant metadata to your platform. Enabling real-time analytics alerts, metadata overlay and forensic search capabilities from within the native VMS environment.

ADVANCED AI ANALYTICS ENGINE

State-of-the-art deep learning classification and people tracking engines for reduced false alarms and accurate business intelligence metadata.

LOGICAL RULES

Simple to use logical rules engine, allowing the coupling of rules to create advanced behaviour detection. Create bespoke alarms and events.

OPEN STANDARD API

Fully documented, open standard, REST API and metadata streams, for simple integration into a range of customized monitoring scenarios and applications. Facilitates simple event reporting to real-time metadata streaming for forensic search.

STAND-ALONE ANALYTICS SERVER MODE

MS-7VCA Software can be deployed as a stand-alone analytics server, streaming video from cameras or VMSs directly, and is also available as a reference design for deeper integrations.

SYSTEM

Supported OSs	Ubuntu 18.04 LTS-22.04 LTS, Windows 10-11
Supported Browsers	Chrome (version 61 and above)
Supported Clients	PC, Android
Supported Platforms	Intel / AMD x86, ARMv8
Supported Video Formats	H.264, H.265, MPEG-4

BASIC EVENT RULES

Event Sources	Analytics Rules, Loss of Signal, Interval (heartbeat), Schedule, HTTP, Arm, Disarm
Event Actions	E-mail, TCP, HTTP, Arm/Disarm

HARDWARE RECOMMENDATIONS



Designed to run on many different combinations, allowing the flexibility to deploy in any scenario. Refer to our website for more details

SUPPORTED ANALYTICS

Deep Learning Object and People Tracking	Deep learning trackers for highly accurate detection and classification of people, hands, vehicles types and objects. Optimised for business intelligence and metadata generation.
Event Rules	Intrusion detection, Tamper, Enter & Exit filters, Appear & Disappear filters, Stopped filter, Dwell filter, Direction & Speed filters, Counting, Abandoned & Removed object filter, Zones & lines, 3D calibration, Tailgating filter, Aggressive Behaviour, Fall Detection, Logical rules.
Object Detection, Tracking and Classification	Robust object tracking engine tracks through occlusion. Deep learning classification for reduced false positive rate. Multiple modes permit optimization for intrusion detection.
Object Counting	Accurate people and vehicle type counting, even in dense scenes.
Event Actions	E-mail, TCP, HTTP, Arm/Disarm.
Tamper	Camera Tamper Alert, Loss of Video Input Connection Alert.

VCA LICENCES

MSW-7VCAProAi:	Tripwires, zones and tamper. Complete rule set including logical rules and deep learning trackers
MS-7VCAbehaviour:	Aggressive Behaviour, Fall Detection, Hand Object Interaction Tracker and DL Skeleton Tracker
CMS-7Custom:	Custom project features

SUPPORTED INTERFACES

Video Input Method	RTSP, Files (avi, mp4, mpg)
Output Data Format	Events (TCP, HTTP, SMTP, VMS / NVR / PSIM Client) Metadata (JSON)
Web Interface	HTML5 via embedded web server, No plugins necessary
API	RESTful API for 3rd party integration and customization, ONVIF profile S and T

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PROCESSOR ARCHITECTURES



x86

ARM

SUPPORTED PLATFORMS



SUPPORTED VIDEO FORMATS

H.264

H.265

MPEG 4

GPU HARDWARE

*Hardware shown has been tested with Ubuntu, maximum channel numbers shown. Other solutions are available. Input stream configuration: 640x480, 15FPS, and high bitrate for good image quality

APPROPRIATE CPU REQUIRED

Tracker	DL Object / People	DL Skeleton	Hand Object Interaction	Behaviour (Aggressive, Fall)
GPU	Number of Channels			
GTX 1660 Super	25	25	25	10
RTX 3050	40	40	30	30
T1000	15	15	15	5
RTX 3070	60	45	60	30
RTX A2000 (12GB)	60	40	45	40
RTX 4060	80	70	70	40
RTX 4060 ti	110	90	110	80
RTX A4000	70	70	75	65
RTX A5000	150	135	150	60

ARM HARDWARE

*Hardware shown has been tested with Ubuntu, maximum channel numbers shown. Other solutions are available. Input stream configuration: 640x480, 15FPS, and high bitrate for good image quality

Tracker	DL Object / People	DL Skeleton	Hand Object Interaction	Behaviour (Aggressive, Fall)
Device	Number of Channels			
Jetson Nano	1	1	-	-
Jetson Xavier NX	5	5	6	3
Jetson Orin 4GB	4	3	2	2
Jetson Orin 8GB	7	5	4	4