

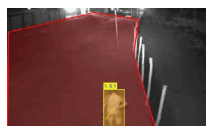
Instek Digital™ VTrack is more than only a video management solution. It takes video surveillance to the next level by undergoing the process of intelligent analytics. Instek Digital™ VTrack technology- can be linked to a large library- where it is collected and continuously updated all image processing state-of-the-art for automatically and real-time video processing of scenes. This is why INSTEK DIGITAL VTrack- unlike traditional motion detection based modules- can guarantee unprecedented functionalities and performance. It turns passive video into a highly accurate discernible tool. The intelligently analyses the video content and differentiates a moving object from its background. After learning the object's behavior- VTrack can trigger an event on the basis of that diagnostic information. The future of technology becomes a reality today by rich, real-time capture of people, vehicles and objects and their individual patterns of motion.



BENEFITS

- Robust and reliable, able to reduce efficiently false alarms due to light conditions, dynamic backgrounds, atmospheric phenomena and subjects that are not of interest
- Continuous level of attention
- Enhanced privacy protection- an electronic processor being- for the most part- the only spectator of events occurring in the scene

Functions INSTEK DIGITAL VTrack:



INTRUSION (Class 1)

detection and signaling of the intrusion within virtual areas of the crossing of virtual lines in a certain direction (tripwire) by subjects of interest



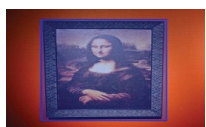
OCCUPANCY RATE (Class 1)

estimation and collection of the percentage of occupancy of virtual areas by subjects of interest, and for each area signaling of an occupancy percentage higher than a defined threshold



ATM (Class 1)

Detection and signaling of one or more than one person who remain within a virtual area for longer than a defined time



STOLEN OBJECT (Class 1)

detection and signaling of objects removed from virtual areas

INSTEK DIGITAL

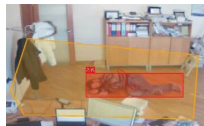
Instek Digital is a video surveillance business unit of Good Will Instrument Co., Ltd. and focus on the development of high quality digital surveillance solutions. The company inherited over 20-years of surveillance experience. Instek Digital has the luxury of a strong financial background supported by Good Will Instrument Co., Ltd. – has over 40-years of electronics R&D and manufacturing experience. And Good Will Instrument Co., Ltd. is also listed on the Taiwan Stock Exchange.

Instek Digital offers a wide array of video surveillance software and hardware – under the brand of Instek Digital. The core design are based on the following principles; “User-Friendliness”, “Scalability” and “Reliability”. Instek Digital’s solutions are based on an open platform – creating seamless third party integration. With this concept Instek Digital has created a business model that can meet every aspect in today’s surveillance demand. The results speak for themselves – based on small and large projects that we have deployed around the world.



LOITERING (Class 1)

detection and signaling of subjects of interest that remain within virtual areas for longer than a defined time



SLIP FALL (Class 1)

detection and notification a person falling and remaining on the ground for longer than a defined time



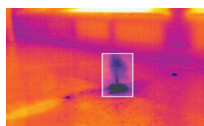
WRONG WAY (Class 1)

detection and signaling of subjects of interest moving toward a not allowed direction within virtual areas



SMOKE FIRE (Class 1)

detection and signaling of smoke and/or fire within virtual areas



THERMAL (Class 1)

detection and notification of targets of interest within a defined temperature range inside a configured virtual area, by processing thermometric cameras



LPR (Class 1)

detection and reading of vehicles license plates for access control management

(Supported Countries: Australia, Belgium, Bolivia, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Croatia, Czech Republic, Denmark, Ecuador, El Salvador, France, Germany, Greece, Guatemala, Hungary, Hungary, India, Ireland, Israel, Italy, Latvia, Malaysia (V4.0.1585.1) Netherlands, Norway, Peru, Poland, Portugal, Romania, Singapore, Slovakia, Spain, Sweden, Turkey, UK, Vietnam)



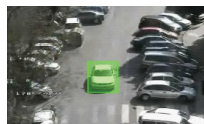
PARKING LOT (Class 1)

detection and notification of the status (free/occupied) of configured parking areas



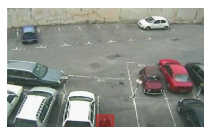
LACK REFILL (Class 1)

detection and notification of the lack of objects inside a configured area (i.e. basket, shelf, trolley area...), below a defined occupancy threshold



PTZ and ALONE (Class 1)

detection, notification and tracking of targets of interest by processing a Pan/Tilt/Zoom camera



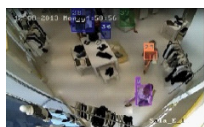
PTZ PLUGIN (Class 1)

automatic piloting of a Pan/Tilt/Zoom camera for tracking a target of interest alarmed by a Command Center function processing one or more fixed cameras



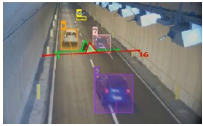
GATE FLOW (Class 2)

counting and collection of the number of persons crossing virtual gates in a certain direction



AREA ACCOUNTING (Class 2)

counting and collection of the number and the dwell time of people within virtual areas and for each area signaling of the presence of a number of person higher than a defined threshold



COUNTING (Class 2)

counting and collection of the number of subjects of interest crossing virtual gates in a certain direction



HOT ZONES (Class 2)

estimation and visualization in false colors on the image and on a map of the zones with higher or lower presence of persons within a defined timeframe inside virtual areas



LEFT OBJECT (Class 2)

detection and signaling of objects left unattended within virtual areas for longer than a defined time



STATIONARY VEHICLE (Class 2)

detection and signaling of vehicles stationary within virtual areas for longer than a defined time



PANIC DISORDER (Class 3)

triggers an alarm on sudden or anomalous variation of speed and/or acceleration of subjects of interest within defined virtual areas



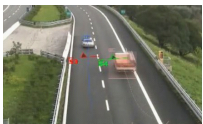
FACE DETECTION (Class 3)

Detection and signaling of the presence of faces within virtual areas



SKIMMER DETECTION (Class 3)

detection and signaling of the presence of minimal variations of the position of contours within a virtual area (ATM)



AV SPEED (Class 3)

estimation and collection of the average speed of vehicles crossing double virtual gates, and for each double gate signaling of average speed lower or higher than a defined threshold

VTrack performance (Quad Core CPU)

24 class 1 rule

intrusion, occupancy rate, ATM, stolen object, loitering, slip fall, wrong way, smoke fire, thermal, LPR, parking lot, lack refill, PTZ and alone, PTZ plugin

20 class 2 rules

gate flow, area accounting, counting, hot zones, left object, stationary vehicle

5 class 3 rules

panic disorder, face detection, skimmer detection, AV speed

System	Operating system	Microsoft® Windows™ 10
	CPU	Intel® Core™ i7
	Resolution	CIF
	Frame rate	10
	Streaming protocol	RTSP / ONVIF
	CMS / NVR behavior	trigger, recording, live/map, popup, PTZ, DO
	Keyboard mouse	PS/2 USB
	Ethernet	1 x Gigabit
	USB	4 x USB3.0 + 4 x USB2.0
	Display port	1 x VGA / 1 x DVI-D / 1 x HDMI
Environmental	Operating temperature	0 ~ 40°C
	Humidity	Max. 90%, non-condensing
Electrical	Power input	AC 100V ~ 240V
	PSU	300W
Mechanical	Form factor	2U
	Dimensions w / wo box (WxHxD mm)	535 x 570 x 245 / 445 x 402 x 88
	Weight w / wo box (kg)	12.2 / 8.6

a) The actual video display performance may vary according to type of camera(s) and lighting condition.

b) Product specifications and availability are subject to change without notice.

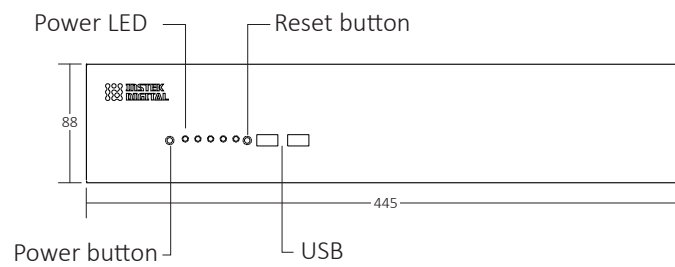
c) Instek Digital is a registered trademark of Good Will Instrument Co., Ltd.

Models:	Description:	Models:	Description:
HR-RV3900-2U	Turnkey	HR-RV30C5-SW	License, 1 channel + 5 rule
HR-RV30S1-SW	Standard software	HR-RV30C6-SW	License, 1 channel + 6 rule
HR-RV30C1-SW	License, 1 channel + 1 rule	HR-RV30C7-SW	License, 1 channel + 7 rule
HR-RV30C2-SW	License, 1 channel + 2 rule	HR-RV30C8-SW	License, 1 channel + 8 rule
HR-RV30C3-SW	License, 1 channel + 3 rule	HR-RV30C9-SW	License, 1 channel + 9 rule
HR-RV30C4-SW	License, 1 channel + 4 rule	HR-RV30CA-SW	License, 1 channel + unlimited rules

Technical requirements for VTrack Software solution:

• Video flow acquisition from:	- minimum size: area of 100 pixels
- IP cameras (optical or thermal), through standard protocols rtp/rtsp, mjpeg or ONVIF	- maximum size: about 1/4 of the image
- analogue cameras (optical or thermal), by IP video encoders through standard protocols rtp/rtsp, mjpeg or ONVIF, or by compatible frame grabber cards	• Suggested camera set-up:
- NVR compatible or through standard protocols rtp/rtsp, mjpeg or ONVIF	- position: at least 3 meters height, the most possible vertical
- off-line videos in all standard formats (avi, asf, mpg, mov, ...)	- lens: not longer than 2,8mm for camera positioned at 3 meters height
• Conditions of the subjects of interest in the image in order to be effectively detected:	• Minimum frame rate: 8fps
- clearly visible to the naked eye in the image, even in difficult environmental conditions (night, heavy rain, fog, glare from the sun or other sources of artificial light, snow, ...)	• Suggested image resolution: CIF (352x288) or QVGA (320x240)
- entirely visible in the image for at least 10-15 continuous frames	• Computational need:
	- Intel® Core™ i7 or higher CPU
	- 8GB or more memory
	- Intel® HD Graphics / NVIDIA® GT730 or higher graphics card
	- Windows (XP or next) or Linux, 64 bit operating system
	- up to 1080P display resolution

Front View RV3900-2U



Rear View RV3900-2U

