

VISUALIZATION OF THE MOST POPULATED ZONES

Instek Digital VTrack HotZones video intelligent feature estimates and visualizes 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.

VTrack OccupancyRate can be utilized for two general purposes:

- business intelligence
more targeted and effective marketing actions, including increased the effectiveness of trade promotions by having a one shot information of the areas where the persons are more present. This helps to verify the ratio between the presence and the selling or the best placement of a product or the impact of a promotional campaign.
- optimize services and management activities
increase the efficiency of personnel and facilities, significant reduce management costs and monitor the utilization of services and facilities.

Vertical market:

- commercial centers, chain stores, supermarkets
- banks
- ports, airports, railways, public transportation
- theaters, cinemas, museums, sport facilities, casinos, public facilities, post offices
- urban areas
- beaches, lakes, parks, tourism facilities

Key Features

- Full integration with Instek Digital VMS Command Center
- More targeted and effective marketing actions
- Reduce management costs
- Windows based software architecture
- Unlimited configurable virtual zones of any shape and size
- Filtering out false alarms due to atmospheric phenomena, variations in environmental condition, vegetation
- Enabling/disabling of the module by external input or time scheduling
- Specific algorithms for filtering shadows and light changes
- Watchdog functionality: for automatic restart of the module in case of critical errors or hardware unit restart

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.

Functional Specifications

- Integrate within Instek Digital VMS Command Center
- Modular, scalable and flexible software architecture, available for Windows/Linux o.s. 32/64bit
- Unlimited configurable virtual gates, of any shape and size
- Mono or bi-directional counting for each configured virtual gate
- Detection and tracking of unlimited subjects of interest in the scene
- Robust and reliable in filtering false alarms due to atmospheric phenomena, changing of environmental conditions, vegetation, thanks to the most advanced self-adaptive algorithms based on Self Learning Background Modelling, Foreground Filtering and Multitarget Tracking
- Specific algorithms for filtering shadows and lighting changes
- Filtering of subjects of interest by size and dynamics
- 3D perspective management by linear interpolation on image, or by image calibration
- Unlimited configurable no-processing virtual zones, to inhibit not-of-interest areas in the image
- Unlimited configurable crops of the image, each one processed as separate video source
- Enabling/disabling of the module by external input or time scheduling
- Ability to process at resolution and frame rate different from the source ones
- Function GateFlowAggregator for the collection and management of the counting of several virtual gates configured on one or more cameras, with automatic and real time signaling of counting exceeding a certain configured threshold
- Web-based graphical and numerical visualization of the on-line and off-line counting data
- Manual or configurable reset for each configured counting function
- Scheduling and sending of automatic counting reports
- Export of counting data in csv format
- Interface for the simulation of the processing results, to verify the correctness of the configuration
- VTClient interface for the real time visualization of live and alarms, with bounding boxes and trajectories overlays
- Watchdog function, for the automatic restart of the module in case of critical error or hw unit restart
- Counting data sending according to specific communication/protocol requirements customizable by project
- Automatic and real time GateFlowAggregator's alarms sending to:
 - VMS or NVR compatible platforms
 - I/O contacts, electrical devices, external DVR or NVR units, through Modbus I/O devices
 - e-mail
 - FTP server
 - serial port, PLC
 - unit connected in web through http/TCP call, customizable
- VTrack-Recorder function, for the storage in local directories of continuous or event-based videos

System	Operating system	Microsoft® Windows™ 7 Pro 64-bit
	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)	570 x 535 x 245 / 445 x 402 x 88
	Weight w / wo box (kg)	12.2 / 7.6

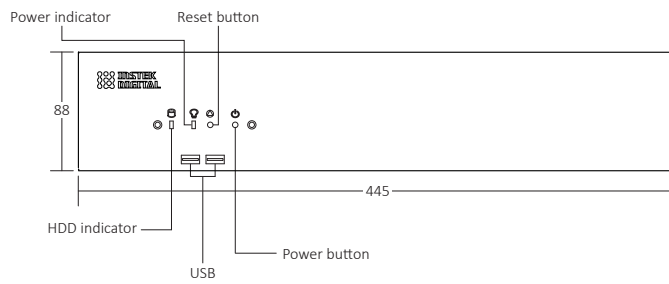
a) The actual video display performance may vary according to type of camera(s) and lighting condition.
 b) Product specifications and availability are subject to change without notice.
 c) Instek Digital is a registered trademark of Good Will Instrument Co., Ltd.

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:

<ul style="list-style-type: none"> • Video flow acquisition from: <ul style="list-style-type: none"> - IP cameras (optical or thermal), through standard protocols rtp/rtsp, mjpeg or ONVIF - analogue cameras (optical or thermal), by IP video encoders through standard protocols rtp/rtsp, mjpeg or ONVIF, or by compatible frame grabber cards - NVR compatible or through standard protocols rtp/rtsp, mjpeg or ONVIF - off-line videos in all standard formats (avi, asf, mpg, mov, ...) • Conditions of the subjects of interest in the image in order to be effectively detected: <ul style="list-style-type: none"> - 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, ...) - entirely visible in the image for at least 10-15 continuous frames 	<ul style="list-style-type: none"> - minimum size: area of 100 pixels - maximum size: about 1/4 of the image • Suggested camera set-up: <ul style="list-style-type: none"> - position: at least 3 meters height, the most possible vertical - lens: not longer than 2,8mm for camera positioned at 3 meters height • Minimum frame rate: 8fps • Suggested image resolution: CIF (352x288) or QVGA (320x240) • Computational need: <ul style="list-style-type: none"> - CPU: up to 6 video flows in CIF/QVGA resolution at 8fps per single core 2.8GHz - RAM: about 80MB per single video flow - Intel® HD Graphics / NVIDIA® GT730 or higher graphics card - Windows (XP or next) or Linux, 64 bit operating system
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Front View RV3900-2U



Rear View RV3900-2U

