

## PROTECT YOUR MOST VALUABLE ASSETS

Instek Digital™ VTrack StolenObject video intelligent feature automatically detects and signalizes removed objects in real-time.

VTrack StolenObject ensures effective and efficient assets, goods and facility management. It easily detects theft and prevents manipulation and damage. Including preventing vandalism of monuments or sensitive assets.

Vertical market:

- industrial areas and critical infrastructures
- commercial centres, chain stores, supermarkets
- banks
- ports, airports, metro and railway stations
- museums, schools, prisons, hospitals, public and institutional buildings

### Key Features

- Full integration with Instek Digital™ VMS Command Center
- 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
- Automatic and real-time alarm notifications

### 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 zones, of any shape and size
- 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 objects by size, type and dynamics
- Morphological filtering for improving the efficiency of the detection and separation of subjects by shape enhancement
- Ability to select several active points of the detected subjects (ex. baricenter and/or ground point and/or left upper point ...)
- Filtering of subjects of interest with specific size for each configured alarm zone (ex. Zone1: alarm only on little objects detection, Zone2: allarm only on big objects detection, ...)
- 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
- Calendar function, for the scheduling of different configurations in different timeframes
- Ability to process at resolution and frame rate different from the source ones
- VirtualAlertRule function, for the generation of alarms by correlating in AND within a certain time the occurring of multiple configured alarms
- Visualization on a centralized graphic map of the position and trajectory of the detected subjects
- 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
- Automatic and real time alarms sending to: VMS or NVR compatible platforms
  - I/O contacts, electrical devices, external DVR or NVR units, through Modbus I/O units
  - e-mail, with in attachment the image related to the generated alarm
  - FTP server
  - serial port, PLC
  - network device through http/TCP call, customizable
  - VTrack-Recorder function, for the storage in local directories of continuous or event-based videos

<b>System</b>	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
<b>Environmental</b>	Operating temperature	0 ~ 40°C
	Humidity	Max. 90%, non-condensing
<b>Electrical</b>	Power input	AC 100V ~ 240V
	PSU	300W
<b>Mechanical</b>	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

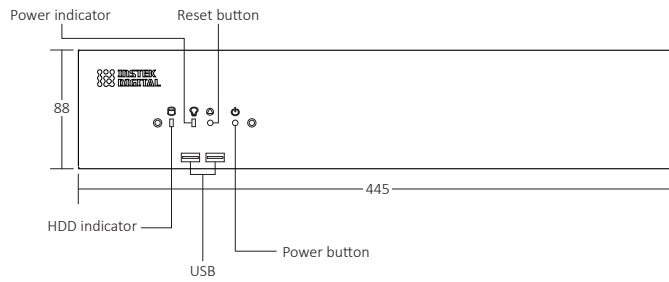
a) The actual video display performance may vary according to type of camera(s) and lighting condition.  
 b) Product specifications and availability are subject to change without notice.  
 c) Instek Digital is a registered trademark of Good Will Instrument Co., Ltd.

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

### Technical requirements for VTrack Software solution:

<ul style="list-style-type: none"> <li>• Video flow acquisition from:                     <ul style="list-style-type: none"> <li>- IP cameras (optical or thermal), through standard protocols rtp/rtsp, mjpeg or ONVIF</li> <li>- analogue cameras (optical or thermal), by IP video encoders through standard protocols rtp/rtsp, mjpeg or ONVIF, or by compatible frame grabber cards</li> <li>- NVR compatible or through standard protocols rtp/rtsp, mjpeg or ONVIF</li> <li>- off-line videos in all standard formats (avi, asf, mpg, mov, ...)</li> </ul> </li> <li>• Conditions of the subjects of interest in the image in order to be effectively detected:                     <ul style="list-style-type: none"> <li>- 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, ...)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- entirely visible in the image for at least 10-15 continuous frames- minimum size: area of 100 pixels</li> <li>- maximum size: about 1/4 of the image</li> <li>• Minimum frame rate: 8fps</li> <li>• Suggested image resolution: CIF (352x288) or QVGA (320x240)</li> <li>• Computational need:                     <ul style="list-style-type: none"> <li>- CPU: up to 5 video flows in CIF/QVGA resolution at 8fps with single core 2.8GHz</li> <li>- RAM: about 100MB for each processed video flow</li> <li>- Intel® HD Graphics / NVIDIA® GT730 or higher graphics card</li> <li>- Windows (XP or next) or Linux, 64 bit operating system</li> </ul> </li> </ul>
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## Front View RV3900-2U



## Rear View RV3900-2U

