

Honeywell Video Analytics

www.honeywellvideo.com

INTELLIGENT VIDEO ANALYTICS

Honeywell's suite of video analytics products enables enhanced security and surveillance solutions by automatically monitoring video for specific people, vehicles, objects and their associated behavior within a camera view. Active Alert can provide real time alarms based on user defined rules to detect abnormal or suspicious behavior without the need for human supervision. This powerful capability enhances both manned and unmanned operations by working 24/7, reducing the amount of video data operators must review, and enabling a high level of monitoring for any size video system.

Honeywell's video analytics software is accurate and high performing and is capable of monitoring and analyzing the behavior of up to 20 objects per camera view, both indoors and outdoors. There are three packages available: Active Alert®, People Counter and Smart Impressions. Active Alert is available in three levels: Base, Standard and Premium. Each of these enables a different set of detectable behaviors.

Product packages can be mixed and matched on a single server enabling the user to assign a product package for each camera to enable the features they need for that particular camera. This results in flexibility for the user to select a combination of product packages to run on each analytics server to ensure optimal end user deployment requirements.

Market Opportunities

Honeywell's suite of video analytics products is an ideal solution to enhance a facility's current level of security or to optimize the use of current personnel resources. The software packages can be used as a standalone solution or in conjunction with a compatible recording system with local and remote management capabilities. The user interface is intuitive, user friendly and easy to maintain, regardless of the system size. Powerful data search tools enable almost instantaneous access to events and alarms.

Active Alert applications include exterior perimeter protection, controlling restricted areas and detecting behaviors that may be precursors to potentially dangerous or illicit situations. Use Smart Impressions to provide data that tracks the movement of people and vehicles for powerful insight into the design, use, and efficiency of operations. Use People Counter to better understand operations and maximize potential revenue opportunities.

Features

- Supports Honeywell's equiP® Series MPEG-4 and H.264 cameras
- An i-LIDS® approved system both as primary detection for operational alert use and as approved event based recording for sterile zone monitoring applications
- User interfaces available in English, French, Spanish, Italian, Dutch and German
- Real-time scene analysis and alarms based on user definable rules
- Powerful onsite or remote configuration capabilities
- Rich set of detectable events and behaviors to suit a broad set of system requirements
- Accurate indoor and outdoor applications with patented technology to reduce false alarms
- High performance software that minimizes the need for excessive PC hardware
- Powerful search tools for instantaneous retrieval of incidents
- Ability to provide voice, visual, relay closure, email, or cell phone alarm
- Supports multiple relay boards to trigger relays on analytics alarms



ACTIVE ALERT®

Honeywell Active Alert is offered in three packages: Base, Standard and Premium, each of which enables a different set of detectable behaviors. The Active Alert Base package includes basic people and vehicle behavior detections, in addition to camera tamper detection: blinding, blurring and scene change. Real-time alarms are generated to alert the user of any of these conditions in order to protect the camera view from being altered due to intentional or non-intentional acts. The Active Alert Standard package builds on the Base package by adding the ability to discern more advanced behaviors such as a person jumping a fence line or loitering, and vehicles parked or pulled off the road. The Active Alert Premium package builds on the Standard package by adding the ability to detect abandoned or removed objects, and possible theft incidents.

	Active Alert Base	Active Alert Standard	Active Alert Premium
PEOPLE EVENTS			
Person entered restricted area	X	X	X
Person exited restricted area	X	X	X
Person loitering in restricted area		X	X
Person started moving in wrong direction	X	X	X
Person stopped moving in wrong direction	X	X	X
Person on fence line		X	X
Person entered sterile zone		X	X
Person started running			X
Person stopped running			X
People converged		X	X
People passed by		X	X
Person trespassing-tripwire	X	X	X
Person running in wrong direction			X
CAR TRAFFIC EVENTS			
Car started moving in wrong direction	X	X	X
Car stopped moving in wrong direction	X	X	X
Car entered restricted area	X	X	X
Car parked in restricted area		X	X
Car entered sterile zone	X	X	X
Car speeding			X
Car made illegal u-turn		X	X
Car parked in disabled parking space		X	X
Car pulled off road		X	X
Car needs assistance		X	X
Car exited restricted area	X	X	X
Car trespassing-tripwire	X	X	X
VIDEO/CAMERA EVENTS			
Video signal lost	X	X	X
Video signal restored	X	X	X
Camera sabotage features	X	X	X
COUNTING EVENTS			
Person counted as entering		X	X
Person counted as exiting		X	X
Car entered car park		X	X
Car exited car park		X	X
Car counted in lane			X
PREMIUM EVENTS			
Object left unattended			X
Object removed			X
Possible theft			X

SMART IMPRESSIONS®

Honeywell's Smart Impressions® video analytics software provides the data that tracks the movement of people and vehicles to help end users better understand their operations and potential revenue opportunities.

It provides real-time counting data of people and vehicles entering or exiting a camera scene. Two innovative analytics algorithms include the ability to track people entering a target zone and how long they dwell in the area. This data can provide businesses with powerful insight into the design, use, and efficiency of operations.

Smart Impressions is high performance software capable of accurately monitoring indoor and outdoor scenes 24/7. Custom reports can be configured to perform statistical analysis of people or vehicle traffic patterns. The software also provides the ability to instantaneously retrieve the images of these people or vehicles. This innovation enables video to move beyond security applications and to provide valuable business data and insight that may otherwise never be fully utilized. It can be used as a standalone solution or in conjunction with a compatible recording system with local and remote management capabilities. The software user interface is intuitive, user friendly and easy to maintain regardless of the system size.

People Activity

By counting and reporting the number of people entering and exiting as well as providing information on dwell time and entering target zone data, managers can better understand their closing ratio and opportunities for operational improvements.

Smart Impressions also provides key components to track the effectiveness of merchandising, advertising, promotions, window changes and location changes.

Combining Smart Impressions data with other operational data provides you the methodology to accurately:

- Increase customer service during key selling periods
- Reduce costs during slow selling periods
- Determine effectiveness of advertising expenses and promotional campaigns
- Determine the effectiveness of merchandising, displays, end caps, window changes and location changes
- Drive accountability

Traffic Activity

Smart Impressions' ability to count vehicles adds a new dimension in analyzing roadway and parking operations including design, safety, revenue opportunities and detection of problems and deficiencies. Traffic counts are critical to understanding traffic conditions, growth, and planning for long-range road improvements and resurfacing of roadways. It drives the data necessary for:

- Roadway geometry analysis
- Planning for roadway improvements and maintenance
- Estimates of revenue
- Location and design of roadway routes
- Signal timing
- Omissions control
- Design of control and safety systems

Features

- Ability to count people and vehicles
- Target zone data for people or vehicles entering and remaining in target zone
- Real-time scene analysis and counting data based on user definable rules
- Accurate indoor and outdoor applications with patented technology to reduce false alarms
- Powerful custom reports enable statistical analysis of people or vehicle traffic
- High performance software minimizes the need for excessive PC hardware
- Powerful onsite or remote configuration capabilities
- Scheduled reports automatically delivered by email



PEOPLE COUNTER

People Counter provides the data that enables end users to better understand their operations and maximize potential revenue opportunities. By counting and reporting the number of people entering and exiting a specific area, managers can better understand their closing ratio and identify opportunities for improvement.

People Counter provides the key component to determine your close ratio. Transaction, sales and staffing data can only truly be interpreted by adding traffic information to the equation. Combining traffic data with other operational data provides end users with the methodology to accurately increase customer service during key selling periods, reduce costs during slow selling periods, and determine effectiveness of advertising expenses and promotional campaigns.

People Counter is an ideal solution to accurately automate the gathering of data relating to people entering and exiting a site that can be used for a variety of purposes. This innovation enables video to move beyond security applications and to provide valuable data that may otherwise never be fully utilized. It can be used as a standalone solution or in conjunction with a compatible recording system with local and remote management capabilities. The intuitive user interface is user-friendly and easy to maintain regardless of the system size.

Understanding key selling periods and reallocating staff is the most cost-effective and time-efficient means to increase total sales. People Counter reports on the following events to provide data to organizations to increase revenues and plan more effectively:

Counting Events

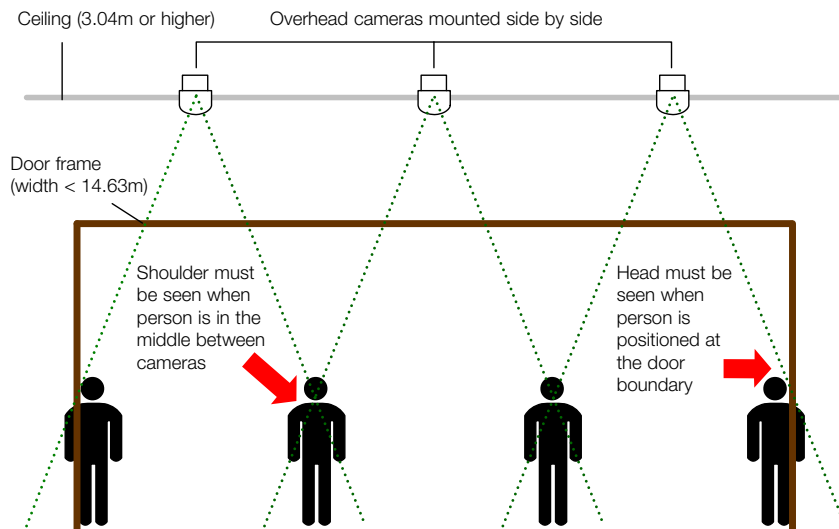
- Person counted as entering
- Person counted as exiting

Video/Camera Events

- Video signal lost
- Video signal restored

Features

- Directional counting gives users the ability to count people entering and exiting
- Accurate indoor and outdoor applications with patented technology to reduce false alarms
- Powerful custom reports to enable statistical analysis of people traffic
- High performance software that minimizes the need for excessive PC hardware
- Powerful onsite or remote configuration capabilities
- Scheduled reports automatically delivered by email



CENTRALIZED ALARM MANAGEMENT SERVER FOR VIDEO ANALYTICS

Honeywell's Alarm Management suite allows security operators to monitor real-time alarms from a large number of video analytics servers. The Alarm Management Server (AMS) is a service that connects to a large number of Honeywell video analytics servers to receive analytics alarms generated by these servers. Multiple security operators on separate workstations can run separate copies of Alarm Watch Station (AWS) client applications to connect to AMS and collaboratively manage real-time alarms coming from all various analytics servers.



The alarm acknowledgement state modified by one operator can be seen on the AWS by all other operators in real-time.

There are three components in the software that enable Alarm Management functionality:

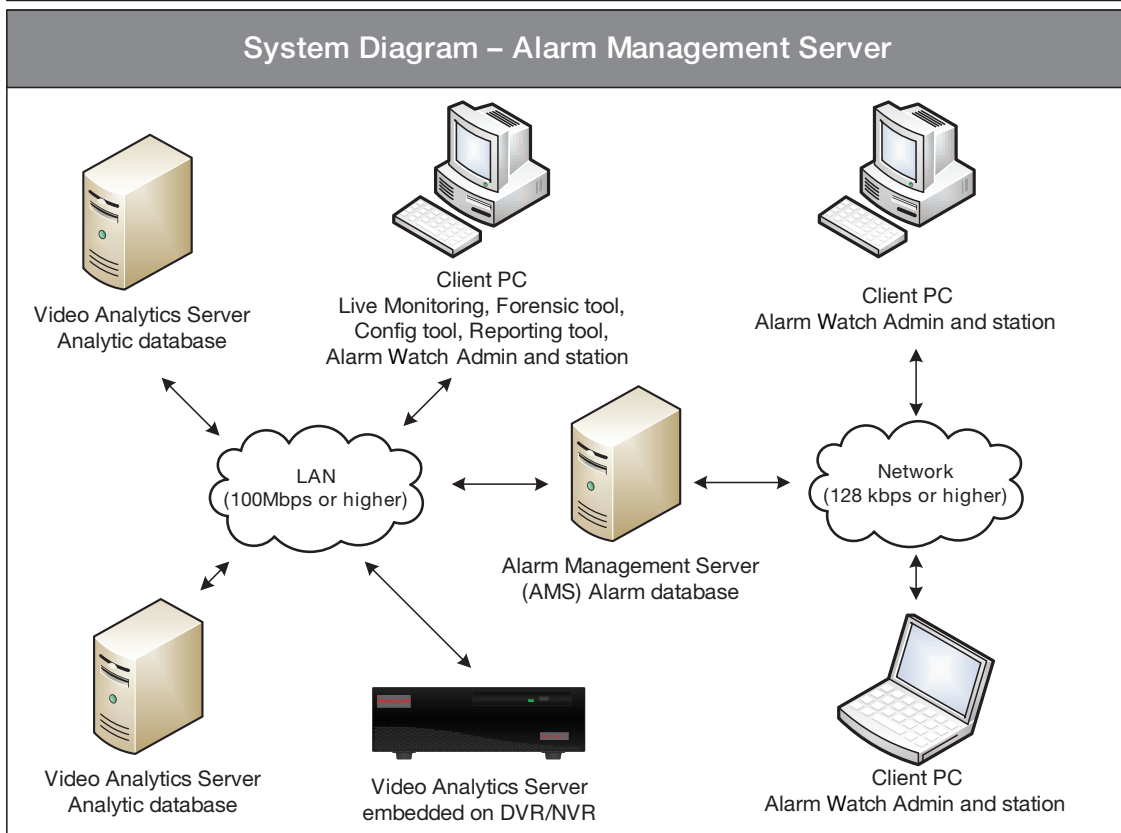
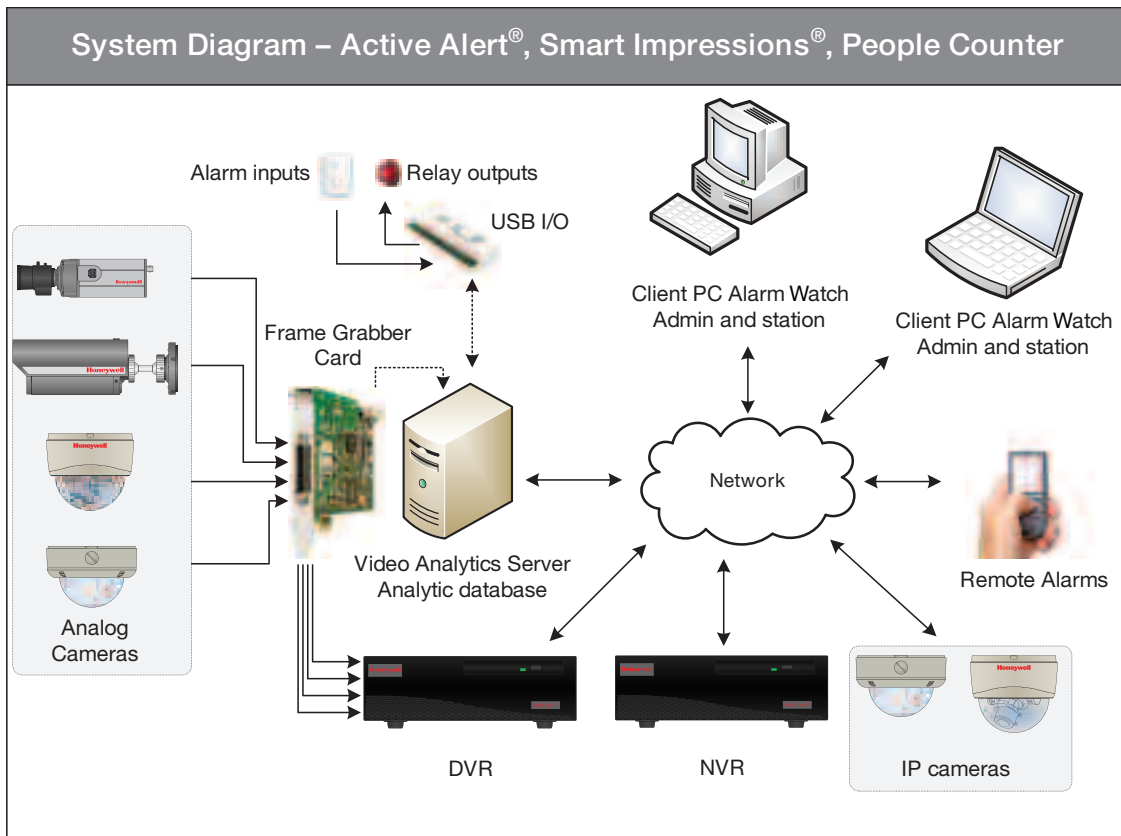
- Alarm Management Server – Running as a Windows service on the AMS PC. It serves as a communications interface between all HVA servers and the AWS client applications. AMS connects to HVA servers, stores all the incoming alarms into a local database, and delivers these alarms to all the AWS units that are connected to it.
- Alarm Watch Admin – A client application that allows the user to configure the AMS. The user can add HVA servers for AMS to connect to, customize alarm acknowledgement states that best suit the organization's own alarm management operation, and create user accounts to be used by AMS. Alarm Watch Admin is one of the client applications included in the Honeywell Video Analytics client package.
- Alarm Watch Station (AWS) – A redesign from the previous version of AWS, this client application now works with AMS to allow the user to view and manage all the alarms coming from the list of HVA servers that AMS is connected to. The user can view and modify the status of any alarm; the status is shared across workstations and can be viewed by other operators. AWS is one of the client applications included in the Honeywell Video Analytics client package.

Market Opportunities

The Alarm Management suite is an ideal solution for larger Honeywell Video Analytics systems in addition to central station monitoring types of applications.

Features

- AMS has its own alarm database to store alarm data including acknowledgement states of all alarms for real-time alarm management
- User-defined alarm case management enables the user to filter alarms by date, time, alarm severity, event type, alarm classification, alarm acknowledgement and analytics server
- Customizable alarm acknowledgement states enable a company to synchronize alarms according to their internal alarm management protocol
- Multiple security operators on separate workstations can collaboratively manage real-time alarms from various analytics servers; alarm action taken can be viewed by all operators in real-time
- Separate user account management for AMS results in an added level of system security
- Four types of user level permissions include Admin, View Live Alarms, Modify Alarm State and Search



SYSTEM SPECIFICATIONS

Suggested Minimum System Requirements for Active Alert and Smart Impressions			
Component	16 Channel PC	32 Channel PC	48 Channel PC
Operating System	<ul style="list-style-type: none"> - Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions - Windows 7 SP1 (32-bit and 64-bit), Professional, Enterprise and Ultimate Editions - Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions - Windows XP (32-bit) Professional (SP2, SP3) 	<ul style="list-style-type: none"> - Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions - Windows 7 SP1 (32-bit and 64-bit), Professional, Enterprise and Ultimate Editions - Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions - Windows XP (32-bit) Professional (SP2, SP3) 	<ul style="list-style-type: none"> - Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions - Windows 7 SP1 (32-bit and 64-bit), Professional, Enterprise and Ultimate Editions - Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions - Windows XP (32-bit) Professional (SP2, SP3)
Processor	Recommended: Quad Core Intel Xeon E5-2403 (1.8 GHz or higher) or comparable Minimum: Dual Core Intel Pentium 935 (3.2 GHz or higher) or comparable	Recommended: Quad Core Intel Xeon E5-1410 (2.8 GHz or higher) or comparable	Recommended: Six Core Intel Xeon E5-2420 (1.9 GHz or higher) or comparable
RAM	2 GB or higher	4 GB (64-bit)/2 GB (32-bit) or higher	4 GB (64-bit)/2 GB (32-bit) or higher
Hard Drive Storage	400 GB (for 60-day storage of metadata)	750 GB (for 60-day storage of metadata)	1 TB (for 60-day storage of metadata)
Video Adapter	Video card with 16 MB memory	Video card with 16 MB memory	Video card with 16 MB memory
Network Connection	100/1000 Ethernet	100/1000 Ethernet	100/1000 Ethernet
For Analog Video Input	Two Pico Alert Compact frame grabber PCI or PCIe	Four Pico Alert Compact frame grabber PCI or PCIe	Not recommended. IP video only.

Suggested Minimum System Requirements for People Counter			
Component	20 Channel PC	40 Channel PC	60 Channel PC
Operating System	<ul style="list-style-type: none"> - Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions - Windows 7 SP1 (32-bit and 64-bit), Professional, Enterprise and Ultimate Editions - Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions - Windows XP (32-bit) Professional (SP2, SP3) 	<ul style="list-style-type: none"> - Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions - Windows 7 SP1 (32-bit and 64-bit), Professional, Enterprise and Ultimate Editions - Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions - Windows XP (32-bit) Professional (SP2, SP3) 	<ul style="list-style-type: none"> - Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions - Windows 7 SP1 (32-bit and 64 bit), Professional, Enterprise and Ultimate Editions - Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions - Windows XP (32-bit) Professional (SP2, SP3)
Processor	Dual Core Intel® Pentium 935 (3.2 GHz or higher) or comparable	Quad Core Intel Xeon E5506 (2.13 GHz or higher)	Quad Core Intel Xeon E5530 (2.4 GHz or higher) or comparable
RAM	2 GB (64-bit)/1 GB (32-bit) or higher	2 GB or higher	4 GB (64-bit)/2 GB (32-bit) or higher
Hard Drive Storage	160 GB (for 60-day storage of metadata)	300 GB (for 60-day storage of metadata)	400 GB (for 60-day storage of metadata)
Video Adapter	Video card with 16 MB memory	Video card with 16 MB memory	Video card with 16 MB memory
Network Connection	100/1000 Ethernet	100/1000 Ethernet	100/1000 Ethernet
For Analog Video Input	2 Pico Alert Compact frame grabbers with 2 spider (breakout) cables (recommended) can only support 16 channels. The rest of the channels must be IP video inputs.	2 Pico Alert Compact frame grabbers with 2 spider (breakout) cables (recommended) can only support 16 channels. The rest of the channels must be IP video inputs.	2 Pico Alert Compact frame grabbers with 2 spider (breakout) cables (recommended) can only support 16 channels. The rest of the channels must be IP video inputs.
Processing Resolution	All channels must be processed at QCIF (160x120) resolution.	All channels must be processed at QCIF (160x120) resolution.	All channels must be processed at QCIF (160x120) resolution.

NOTES:

1. This assumes all channels are processed at QCIF (160x120) resolution for overhead people counting purposes.
2. The number of analog video inputs allowed per server depends on the available PCI slots for frame grabber devices.

ALARM MANAGEMENT SERVER SYSTEM SPECIFICATIONS AND ORDERING

Minimum PC System Requirements for Alarm Management Server	
Component	Requirement
Operating System	<ul style="list-style-type: none"> – Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions – Windows 7 SP1 (32-bit and 64-bit), Professional, Enterprise and Ultimate Editions – Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions – Windows XP (32-bit) Professional (SP2, SP3)
Processor	Recommended: Dual Core Intel Xeon W3503 (2.40 GHz or higher) Minimum: Dual Core Intel Pentium 935 (3.2 GHz or higher) or comparable
RAM	2 GB (64-bit)/1 GB (32-bit) or higher
Hard Drive Storage	160 GB, Note: On average, the size of an alarm record is 20 KB
Video Adapter	Video card with 16 MB memory
Network Connection	100/1000 Ethernet
Other	One USB 2.0 interface
PC Minimum System Requirements, Video Analytics Client Component Requirement	
Operating System	<ul style="list-style-type: none"> – Operating system Windows Server 2008 R2 SP1 (64-bit), Standard and Enterprise Editions – Windows Server 2008 (32-bit and 64-bit), Standard and Enterprise Editions – Windows 7 SP1 (32-bit and 64-bit), Standard, Enterprise and Ultimate Editions – Windows Vista (32-bit and 64-bit), Business and Ultimate Editions – Windows Server 2003 (32-bit), Small Business, Standard and Enterprise Editions – Windows XP (32-bit) Professional (SP2, SP3)
Processor Recommended	Pentium Dual-Core E5800 (3.2 GHz or higher)
Minimum	Intel Pentium 4 (3.0 GHz or higher) or comparable RAM 2 GB (64-bit)/1 GB (32-bit) or higher Video adapter video card with 32 MB memory display resolution minimum of 1280x800 pixels Network connection 100/1000 Ethernet other audio with speakers
Ordering	
HASWCD	Software CD
HAAB	Active Alert Base (single channel add on license)
HAAS	Active Alert Standard (single channel add on license)
HAAP	Active Alert Premium (single channel add on license)
HASI	Smart Impressions (single channel add-on license)
HAAC	People Counter (single channel add-on license)
HAAMS*	Alarm Management Server Software

*Alarm Management Server Software needs to be installed on a separate PC Server

NOTE: Honeywell reserves the right, without notification, to make changes in product design or specifications.

