



Product Specification

VUgarde2 offers Unique, Advanced and Industry Standard Surveillance

Features:

VUgarde2 is a highly stable software platform, easy on any network and very easy to deploy with the advanced Auto Detection feature for IP cameras. VUgarde2 also provides extreme flexibility as it can manage unlimited servers, sites, and cameras remotely, quickly and efficiently. VUgarde2 is an open architecture Video Management Software (VMS) for Windows. VUgarde2 accepts MJPG, MPEG-4 and H.264 as well as Full HD and megapixel video streams from Network (IP) cameras, encoders and capture boards. This along with VUgarde2 client-server architecture allows you to build hybrid scalable solutions from a single NVR/DVR to multiple servers handling thousands of cameras.

VUgarde2 accepts video streams from Network (IP) cameras from 90+ manufacturers including all major manufacturers such as Axis, Arecont Vision, Pixord, SONY, JVC, Panasonic, IQinVision, Toshiba, Zavio, Acti, Vivotek (more than 1800 models supported) VUgarde2 also works with several DVR cards, like H.264 (up to 960fps and 32 channels at D1 resolution) boards from UDP and other manufactures. Moreover VUgarde2 is considered to be a hybrid system, since a DVR card with analogue cameras, IP cameras and IP mega pixel cameras could be combined together on a single server.

Unique features:

Surveillance from anywhere – Multiple client options are supported, including Vugarde2 client, Web client, VUgarde2 VMS Mobile client app for IOS, and Android. Web client "Anywhere Server" including IE, Chrome, FireFox, Safari, iOS, Android, etc. VUgarde2 Anywhere re-samples and recompresses original video streams for the best performance, quality and bandwidth utilization.

Fully-featured Client application – All functions, without exception, may be controlled both locally and remotely (only one user interface). Anyone operating the client application can connect to the server, access live and recorded video, change settings, etc. in accordance with granted user rights. It enables quick navigation between cameras from any server.

Server can run as a Windows Service – (no need to login). This feature allows the running VUgarde2 server to go virtually unnoticed. Also the server can run without logging in, so the security of the server is not compromised. **Server can run as a stand-alone server using Windows Exclusivity.**

EDGE VCA (Video Analytic with DATA MINING Filters)

- DATA MINING for post event analysis and data management.
- Sensitive tracking with a low false alarm rate.
- VCA adapts automatically to varying lighting and weather conditions.
- Simple detection zone set-up.
- Fire and Smoke – WARNING - The smoke and fire video analytic s does not comply with any detection standards and should not be used as a safety device. It should be installed in addition to certified safety devices and used only to supply additional information.
- VCA enabled encoder/camera can be used as a stand-alone intruder sensor or digital output contact can be set to react to specific triggers.
- Analytic s stabilization allows software to work effectively on swaying cameras.

- Rapid 'learning time' of just a few seconds. Can be used with PTZ cameras - detection is suppressed during camera movement
- Unique features - PTZ auto tracking, fog and smoke reduction, image stabilization and camera tamper.
- VCA has NO single point of failure, because the Analytics is integrated on the Edge HW; Video server or into the Camera.
- VCA is very easy and simple to configure even for installers with limited experience.
- VCA fits many market segments without modifications.

OPEN VCA (Video Analytics with DATA MINING Filters) No extra hardware required.

Software video analytics. Includes data mining. VCA Advance includes:

- Counting lines
- Camera Tamper Detection
- Camera Shake Cancellation
- Surveillance tracker
- Presence filter
- Appear Disappear Filters
- Abandoned Object Detection
- Removed Object -Detection
- Class and speed filters + calibration
- Direction & dwell filters
- Tail-gating filter
- On-screen counters
- Object Meta data
- VUgarde2 VMS data mining.

Counting (open VCA), No extra hardware required - Counting (people, car, and object counting) With VCA counting highly accurate information on the number of people who enter their premises to use their facilities. It can apply to several applications such as, airports, bus and train stations, bars and clubs, car parks, retail stores and shopping malls, museums and tourist attractions, sports and leisure facilities, and more.

Live View VCA Metadata – Live Viewing of Metadata Filters, Such as: Classification for People and Vehicles and much more.

Event and Action Management Wizard – Send E-mail and SMS Text notifications. Client application audio notifications by alarm events. Create Events such as: Video Lost, Video Restored, Motion Events, VCA Events and Digital Input. Create Actions such as: PTZ preset, Digital Output, Write to application/event log, Activate Layout, Popup video, Email/SMS Notification and Run program.

Client can be connected – To multiple servers simultaneously. A client application user, if granted sufficient privileges, can connect to an unlimited number of servers to view live or recorded video as well as perform other operations.

Supports unlimited number of cameras – (hardware limitations may apply, cameras licences added in packs of 16). The PRO edition imposes no limitations on how many cameras can be connected to a server. Although there will be hardware performance cap (mostly CPU productivity and network bandwidth) you may still connect to several hundred cameras. However, in time these limitations will decrease as hardware efficiency grows.

Efficient CPU usage – If used in connection with Network (IP) cameras, Network Video Servers or DirectShow devices, the server will not use the power of the CPU to digitalize video and audio; this means that the CPU usage will be low enough to avoid interference with other software applications

enabling the user to use the server for various applications in conjunction with video monitoring. *(This configuration is not recommended. Please refer to TDSi for any specific requirements).*

Full featured local and remote playback – With search on motion and areas of motion you can now find momentary clips of video without searching for hours. If an object is missing just highlight the area and hit go. VUgarde2 can take you to all of the video clips that had motion in that area until you are satisfied.

Archive Investigation - Multi-camera Playback and Advanced Functionality:

- Timeline
- Multi Layout Video Export without extra codec needed
- Motion regions settings
- Quick Snapshots over Timeline

Multi-Language Support – English, German, French, Spanish, Portuguese, Italian, Czech, Polish, Russian, Hungarian, Chinese, Danish, Estonian, Finnish, Greek, Simplified Chinese, Turkish, Korean and Japanese localizations.

Audio Support - Supports: Two way Audio from IP cameras and encoders. One way Audio is supported from the H.264 frame grabber HC7008, HC7016, HC7032 and from devices that expose themselves as (compatible) MS DirectShow devices, this includes USB audio devices.

Multicast support – (from server to multiple clients)

Authentication for Windows Domain – via Microsoft Active Directory for Enterprise Edition

Bandwidth Control (VIDEO TRANSFER Properties): Our advance built-in module in all VUgarde2 editions allows you to, enable time laps broadcast, Motion control video Transfer, Bandwidth controlled Broadcast, And Video re-compression for optimum video frame rate according to available bandwidth.

Supported compressions: H.264, MPEG4, MJPEG, JPEG.

Client configuration – (screen layout, connection to servers, etc.) is a registered file type, so it is possible to store different configurations on one computer, email them or export them as a database and open them on any computer with the client (configure one client with all your connections and import database to unlimited computers).

Support for the standard Direct Show devices – The list of these devices includes everything from very basic USB cameras to camcorders to advanced multichannel video capture boards. These devices can be used alone or together with supported hardware and/ or IP cameras.

Screen may be configured for HDTV or wide-screen monitor (WXGA).

Supports all major brands of IP (Network) security cameras – Network (IP) cameras by multiple manufacturers are supported; the list of supported IP cameras is growing rapidly and an addition of a not yet supported camera may be expedited upon request.

IP Camera Configuration – All IP cameras on the LAN may be configured via Auto Search Wizard. Using the Wizard a user is able to find all Network IP cameras available within the network. A user can configure them and connect them in no time and with little effort.

Full range of editions – For all needs and budgets.

Global configuration – All cameras, IP and Analogue can be configured globally all at once for Recording, Motion, Video motion information, Time Lapse, Motion control, Event, and Storage Quote.

Camera status report: VUgarde2 VMS offers an application which will interrogate and report the status of configured camera, including snapshot.

VUgarde2 Anywhere - is a part of VUgarde2 VMS suite. Its purpose is to make video streams received by VMS server available through web interface to various web-browsing platforms, such as: Internet Explorer, Firefox, and Google Chrome as well as for iPhone, Android, etc. VUgarde2 Anywhere will optionally resample and recompress video streams for web or mobile clients depending on connection speed and viewing capabilities for the best performance, quality and bandwidth utilisation.

Licensing

Licensing for the VUgarde2 software is bound to the Hardware of your computer, like motherboard and Ethernet controller. Cameras are licenced in bundles of 16 channels. Client licenses are based on the number of concurrent connections.

Advanced Surveillance Features:

User-friendly wizards – Make VUgarde2 easy to use and configure. All commonly used operations, such as adding access to a new Server from the Client application, searching for Network IP cameras within a LAN, User management, etc. can all be performed via the VUgarde2 intuitive wizards. This helps make very advanced features accessible to the average computer user.

Enterprise Scalability and Monitoring (ESM) – All functions such as: Screen Mapping, Layout Sequencing, Alert Notifications, PTZ Control, Camera Configurations and more without exception may be accessed and administered both locally and remotely allowing management and administration for an unlimited number of servers around the world. Flexible Event/Action configurator that enables you to manage events and notifications such as emails, text messages and more task for multiple servers from one interface.

Runs as a Windows Service – Not only can you lock windows, but you can log off windows all together and create a bullet proof environment.

Optimized and Designed – For Microsoft Windows 2008/2012/Windows 7 and Windows 8.

User Management - Controls access to cameras and program features. Depending on user status, user can be either allowed or denied access to software abilities and features such as: Administer server, Camera viewing, remote connection, Playback, Archive, Data Delete and so much more.

Network Camera Search Wizard – Using this Wizard a user is able to find all available network cameras, configure them, and connect them in no time and with little effort.

Automatic detection for IP cameras – Available for LAN or a WAN range of IP addresses – Just connect your IP cameras to the network and tell VUgarde2 an IP range to find cameras on. NO additional configuration required by integrator.

Hybrid and Tribid – Captures video from any source or multiple sources. CCD, CCTV analogue camera, IP camera, USB camera, Web camera etc. Mix and match on the same machine.

Control PTZ cameras – Pan, tilt and zoom cameras can be fully controlled from within the Client application.

Multiple clients may be connected to a single server – Depending on licence and user management settings, 1 to unlimited number of local and remote client applications may access the server to receive live and recorded video, as well as perform other operations. Depending on User Name limitations, the user could do everything or may be limited to certain access only.

Client connected to multiple servers – A user of the client application, if granted sufficient privileges, may connect to an unlimited number of servers to view live and recorded video as well as perform other operations.

Each camera is individually configurable – This allows adjustment of the camera operation to the particular monitoring area. The options that can be individually configured include: Frame-per-Second (FPS) rate, recording, motion detection, image adjustments (brightness, contrast, sharpness, hue, saturation) and more.

Map camera layouts – Create map layouts on either Google maps or using a jpeg map. A user can place camera markers anywhere on a map for easy navigation of cameras.

Fully featured local and remote playback, no limitations on remote client.

CD/DVD Backup Wizard with player. Hard drive backup wizard. Using our CD/DVD export wizard, any computer can open the exported videos with audio without the need of codec or the need to install any playback software.

USB Joystick Support – Control PTZ Cameras, Presets, Open Archive and much more from remote client with VUgarde2 VMS support USB Joysticks.

Advance server recording settings – Can be configured locally and remotely.

TCP Port – User can select TCP port to their Preference the default is 60554.

Disk analysis screen display – For improved recorded data analysis.

Layouts – Create custom Layouts by grouping cameras from different DVR Servers/Locations into groups for more efficient monitoring, and better management. Drag and drop cameras from a server or multiple servers to custom layouts.

Exclusivity Mode – Exclusivity Mode (windows lock-out) can be set up, to take special care to ensure VUgarde2 is the only application the user is interacting with. Advance properties are available for start-up and password authentication as well.

Layout Sequences – Layouts can be used for Sequencing. Layout sequences can be set in custom time intervals with custom layout priorities. Multiple Sequences can be created and activated at any given time.

Adjustable screens – Need to view more than 32 cameras? Adjust the VUgarde2 window and open multiple instances. Open as many as your monitor can handle or you can view.

Software watchdog – Advance Watchdog Operations, Programmable with maintenance settings. Watchdog can be configured to periodically restart server services to clear any possible problems which could degrade server system performance, (select different time frames (days, hours, etc.)), Adjust auto settings for error control and advance detection for problem detection and recovery.

Hardware watchdog – (On supported frame cards when available).

Video Adjustments – Video adjustment can adjust every individual camera with its own settings remotely and locally. Adjustments for Brightness, Contrast, Saturation, Sharpness, and Hue. Adjustable image quality camera by camera. Adjustable compression settings camera by camera.

Motion control recording – with option for recording frames when no motion is detected (EX. 1 FPS when no motion and 30fps when Motion).

Export Snapshots – Save current frame as JPEG or Bitmap file.

Export recorder video – Available Properties with options built into VUgarde2 for most supported Codecs.

Digital zoom – Available for all cameras.

Free distribution of the client software for unlimited computers – User can install client software on unlimited pcs at no additional cost for licensing.

Output Video to a NTSC/PAL

Live View Events Pane – Shows Live Events configurable via Action & Events configurator. Allows to quickly switch to selected camera and open archive for selected event.

Network Drive Mapping – User can map network drives at no additional cost for licensing.

Camera/Network Support – Supports all major brands of Network (IP) cameras and Network Servers.

Each camera is individually configurable – including: recording, motion detection, and image.

Multiple resolutions support – (camera by camera) up to D1 (frame cards) and 5960x3352 Pixels (IP Mega Pixel Cameras).

Display Mode

- 1 camera (full screen) layout
- 4 camera (2 x 2) layout
- 6 camera [2x2 + 1(large view)] layout
- 8 camera (7 + 1(large view)) layout
- 9 camera (3 x 3) layout
- 10 camera (8 + 2(large view)) layout
- 13 camera (12 + 1(large view)) layout
- 16 camera (4 x 4) layout
- 25 camera (5 x 5) layout
- 36 camera (6 x 6) layout
- 48 camera (6 x 8) layout
- 54 camera (6 x 9) layout
- 49 camera (7 x 7) layout
- 64 camera (8 x 8) layout
- 96 camera (8 x 12) layout
- 81 camera (9 x 9) layout
- 108 camera (9 x 12) layout
- 100 camera (10 x 10) layout

1 row of streams from 1 to 10 streams in a row

Wizards

Wizards are for easy navigation and step-by-step setup instructions on how to perform configurations and other setup tasks as follow:

- Add a new connection to the VUgarde2 server
- View or modify Server connection properties
- View or modify server User permissions (camera by camera)
- Add, Configure or delete camera device
- Configure export of video frames
- Open Server Archive
- Manage server Watchdog settings

- Configure Server Events
- Report camera status
- Start and stop server services and application
- Configure Server Events
- Submit a problem report
- View or modify server recording properties
- View or modify server TCP communication properties
- Submit a problem report
- Automatically discover network video devices
- Backup server archive data

More Standard Surveillance Features:

Generic and Standard Support - VUgarde2 DVR supports PSIA, ONVIF and Generic RTSP compatible devices

Quota Management - VUgarde2 VMS is capable of using individual per camera recording quotas. Options to constrain footage in gigabytes or duration of days or both

Continuous recording – No tapes to be replaced; Recording operation uses FIFO Technologies (First in, First Out).

Scheduler-Based Recording – No tapes to be replaced; Recording operation uses FIFO Technologies (First in, First Out).

Multiple screen configuration options – You can choose from 1 screen view, 4, 9 or 16, 25, 36, 49, 64, 81 and 100 equal screen views. Other options include custom views, where as one or two screens are larger than the others.

Motion Detection – Each camera may be set to detect motion. No additional hardware is required for motion detection; Motion detection is performed solely on a software based level. Triggered by motion, a camera can perform numerous operations and is not limited to only recording video. Motion activated recording supports an unlimited number of Motion Zones that each have unique sensitivity settings. View results in real time for easy setup - label each Motion Zone to trigger actions and event log allows quick review of video associated with motion or alarm events.

- Event log allows quick review of video associated with motion or alarm events.
- High performance Motion Detection mode added, featuring software motion detection on key frame and sub stream (Designed to reduce CPU load on Server PC)

Sound Notifications – for Client Application Events.

Notification sounds – Custom sounds can be upload for certain application events, such as:

- Connection to server
- Disconnection from Server (Failure)
- Disconnection from Server (Success)
- Server notification 1, 2, 3,
- Video Source Alert
- Video Source motion

Option for live screen and mapping – User define options for screen mapping mode are available,

such as automatic, manual, per arrangement. This option includes Away Mode, which includes Window minimization action (Default (Away mode), Do nothing Mode, Temporarily Unmap). Leave Map, Unmap on Away, and Temporarily Unmap on away)

Option for archive playback – User define option for to pause live stream whenever archive window is open for faster remote playback

Event Indication – Flashes box around video if event is triggered or motion is detected

Remote Management – via Internet and/or LAN/WAN. The server can be accessed from any part of the world for remote monitoring, remote playback, user management and more.

Real-time playback – without interrupting the recording cycle any camera can be played back using the local or remote Client application software. Such playback will not interrupt on-going video recordings, nor will the quality of the recordings be compromised.

Output Video – for NTSC/PAL

Digital Zoom – Available for all cameras

Screen Footer Options – Will show you Average Frame rate, Resolution, Bandwidth Usage and more.

Multi streaming support (designed to reduce CPU and network load on Client PCs)

Fisheye video stream de-warping - support (Live view and Archive)

On-screen PTZ control - for all PTZ cameras

Notifications on server's storage failure/malfunction

Sub stream configuration - Available for Generic RTSP video stream configuration

Quick save snapshot ability - Available for Live View

Support for ImmerVision 360-degree Panomorph lenses

SureView Immix® compatibility added (contact Immix for the driver)

VUgarde ANPR

Vugarde ANPR is an automatic License Plate Recognition application that is designed to work with VUgarde2 VMS Server. This application accommodates customers with the specific need to detect, recognize and register motor vehicle license plates. VUgarde2 ANPR is ideally suited for vehicle access control applications as well as for traffic control and enforcement applications.