

appvision

Multi Application Command and Control Software



CCTV command and control



Perimeter & access control management



Fire & intruder alarm supervision

Building automation : air conditioning, heating, electricity consumption...



Building & street lighting

Parks & stadium sprinkler systems



and plenty more

Technical Description



Date Release September 2010

Objectives for this document

This document aims to list the various elements and features for the AppVision supervisory command and control application, as well as for the modules AppVideo : CCTV management; and AppControl : used to manage access control hardware and software.

AppVision is a highly flexible command and control system that is used in many different product applications. It is not possible to specify each and every one in this document.

If you do not find the information you are looking for please contact Prysm via email commercial@prysm-software.com with details for your requirement.

The contents of this document can be used to :

- Reply to tender offers by our partner companies
- Assist consultants and technical personnel for specific requirements

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Summary of Key AppVision Features

- Architecture client / server, redundant server, unlimited theoretic number of client stations
- Centralisation of alarms from multiple manufacturers with direct acknowledgment of alarms from the AppVision interface (where the equipment integration enables this feature),
- Simple to use cctv control room interface that centralises camera display, PTZ and playback from analogue and digital camera technologies and storage devices,
- Monitoring of security and technical alarms as well as lost connections for all connected devices,
- Management of user access levels and rights with an easy to configure hierarchy : administrator, operator, maintenance,
- Graphic representation of all centralised information made possible with use of floor plans / zones and dynamic icons, navigation toolbars to manually change zones, buttons, onscreen animation, use of colour changes.....
- Plans can be accessed manually using a hierarchy menu, or through graphic based navigation menus (plans can also be made to change automatically on alarm),
- AppVision contains a configuration module and graphic editor which can be used directly by persons who have administrator level access,
- AppVideo cctv module contains a virtual matrix application that is used to position and control the way camera inputs are displayed on cctv pc monitors, cctv control room walls and plasma televisions,
- Standard cctv display features menu,
- Easy PTZ of dome cameras either via screen interface or with compatible cctv joysticks,
- Build custom scenarios for equipment systems or events : cause and effect reactions in alarm event, panic buttons, mode security....
- Log of all events and operator actions with time & date stamp,
- Recommendation and report after each security alert : operator action to follow and action report (copied to supervisor),
- Automatic link from alarm to live cctv camera or playback,
- Full playback from DVR's and VMS,
- Video analytics supported natively or through external VMS software,
- Number plate recognition supported natively or through external VMS software,
- No theoretical limitation on the quantity of connected systems or types of equipment systems
- AppVision uses open architecture : free of charge SDK, low cost developments of new systems, configuration and software developer training, OEM versions

Technical data

General

- AppVision version 3.xx was written using the latest Microsoft programming language .NET (DOT NET),
- We used the following development tools : Microsoft Visual Studio .NET /C#,
- AppVision supports Windows 2000, Windows XP, Windows Server 2003 and Windows Vista,
- The scalable licensing model for AppVision starts from 100 variables or 150 detection points (as appropriate) up to unlimited connections,
- Module options include single client station up to unlimited client stations,
- AppVision manages equipment systems using native drivers (or protocols). Protocol options include single protocol deployments up to unlimited protocol,
- AppVision is supplied ready to use on a SQL Server database (MSDE) although can be configured differently is required.

IP - Multi client station

- AppVision uses the TCP-IP network communication protocol to communicate with remotely deployed client stations,
- The architecture model is client - server.
- Light client stations can be deployed in some cases.

Categories, tables and search fields

- Synoptics (graphic images of floor plans, equipment flow charts, statistics..),
- List of alarms,
- Tables of equipment status,
- Display of managed events des in real time table,
- Calculation and display of real time statistics in graphic format ,
- Archived events,
- Archived alarms,
- List of forced variables,
- Journal of modifications by user,
- Display of HTML pages possible,
- Dynamic on line help,

Other elements

- Supports multi window display,
- Supports multi screens,
- Software development kit – used to develop external modules,
- Redundant server synchronisation tool,
- Inter server protocol dialogue,
- Native administration of SQL : SQL via ADO.NET,
- Unlimited number of connections to equipments,
- Maximum number of redundant servers : 2

Summaries

- Automatic generation of summaries using internal script commands in a format that can be modified as required
- Internal calculations : number of start up's, response times....
- Print out of summaries.

License / sub-applications

- AppVision licenses are modular – from small mono protocol installations up to unlimited number of equipments
- AppVision comprises various applications and tools :
 - An application tool used for deployment preparation and configuration : AppVision Configurator
 - A tool for creating synoptics and symbols : AppSyno. This application allows users to integrate standard format images into AppVision synoptics : BMP, JPG, GIF, ICO, WMF, DXF

Development and Integration

- Simultaneous multi user development on a same project
- Import/export of all or parts of an application
- Dynamic update of modifications
- Use of script in C# (.NET)
- Integration of a .NET format library of tools,

AppVision Communications Methods

AppVision contains many ways to establish systems communications with other software applications and equipment systems :

- **.NET and ActiveX controls**

AppVision supports .NET and ActiveX controls via synoptics – these behave as their containers, configured within a synoptic.

- **Display of HTML pages**

Easy link up to webpages and HTML format documents : display of tables, script execution, ... or to integrate another application using HTML format or links.

- **OPC protocol**

AppVision is able to emulate an OPC client and to connect to OPC servers in order to read or write to variables.

- **DDE protocol**

AppVision connects to DDE servers in order to read or write to variables.

- **Software development kit**

Our SDK contains a library of documents that allows a developer to build annex applications annexes and to access the status of variables within AppVision. It also includes ways to develop communication modules for protocol drivers.

- **Database access**

AppVision connects to standard SQL databases. It is possible to develop external applications that connect directly to the AppVision database.

- **CSV Files**

CSV files can be produced by import/export features within AppVision drawing from configuration tables or archives. These files are used directly from external applications that access the CSV format, such as Excel.

- **Data import-export & restore function**

AppVision disposes of a tool used for the import and export of data such as configuration tables or archives. A similar tool is used to save or restore data.

AppVision Architecture

AppVision® associates the following features :

- Dynamic management of graphic plans and diagrams (or synoptics),
- User and group profile management,
- Client – server hierarchy (using TCP-IP) that enables multi station deployments over LAN's or WAN's,
- High level alarm centralisation and management,
- Archive database and multi criteria search fields,
- Multi protocol driver manager,
- Dedicated CCTV interface, AppVideo, for use with DVR's, VMS/NVR's and IP cameras.

The internal multi protocol driver manager enables AppVision to centralise and in most cases remotely command various types of equipment used in the building management and electronic security industry :

- CCTV systems,
- Alarm panel : fire and intruder,
- Access control,
- Building automation,
- PA systems,
- Intercoms
- HVAC....

AppVision is composed of 3 different applications that are used to centralise security equipment :

APPVISION
Supervisor : AppUser
Configurator : AppConfig
Graphic Editor : AppSyno

- **AppUser** is the front end supervisory application.
This is a Human Machine Interface (HMI) that is installed on client stations (and the server if required) for users to centrally manage the various equipment systems that AppVision is connected to.
- **AppConfig** is our configuration application.
AppConfig enables the integrator / installer to configure equipment variables with equipment or zonal groups, install protocols, establish user rights...

- **AppSyno** is a graphic editor.
It is primarily used to build graphic images or import background images into AppVision.

As already stated AppVision is a modular application that uses a client – server architecture. Client station can include :

- The Configurator application,
- The supervisor HMI (the main AppVision application for command and control),
- Protocol administration and communication drivers,
- Other specific modules or those that have been built using our SDK.

The supervisor application is fully configurable to meet specific customer requirements for command and control, display of data, presentation of equipment....

The scalable solution means that the software is deployed to meet the needs of each specific project, whether the project is a small single server application or a large multi site deployment with thousands of inputs.

Architecture multi client

In this architecture AppVision features can be rendered common to all stations or made specific.

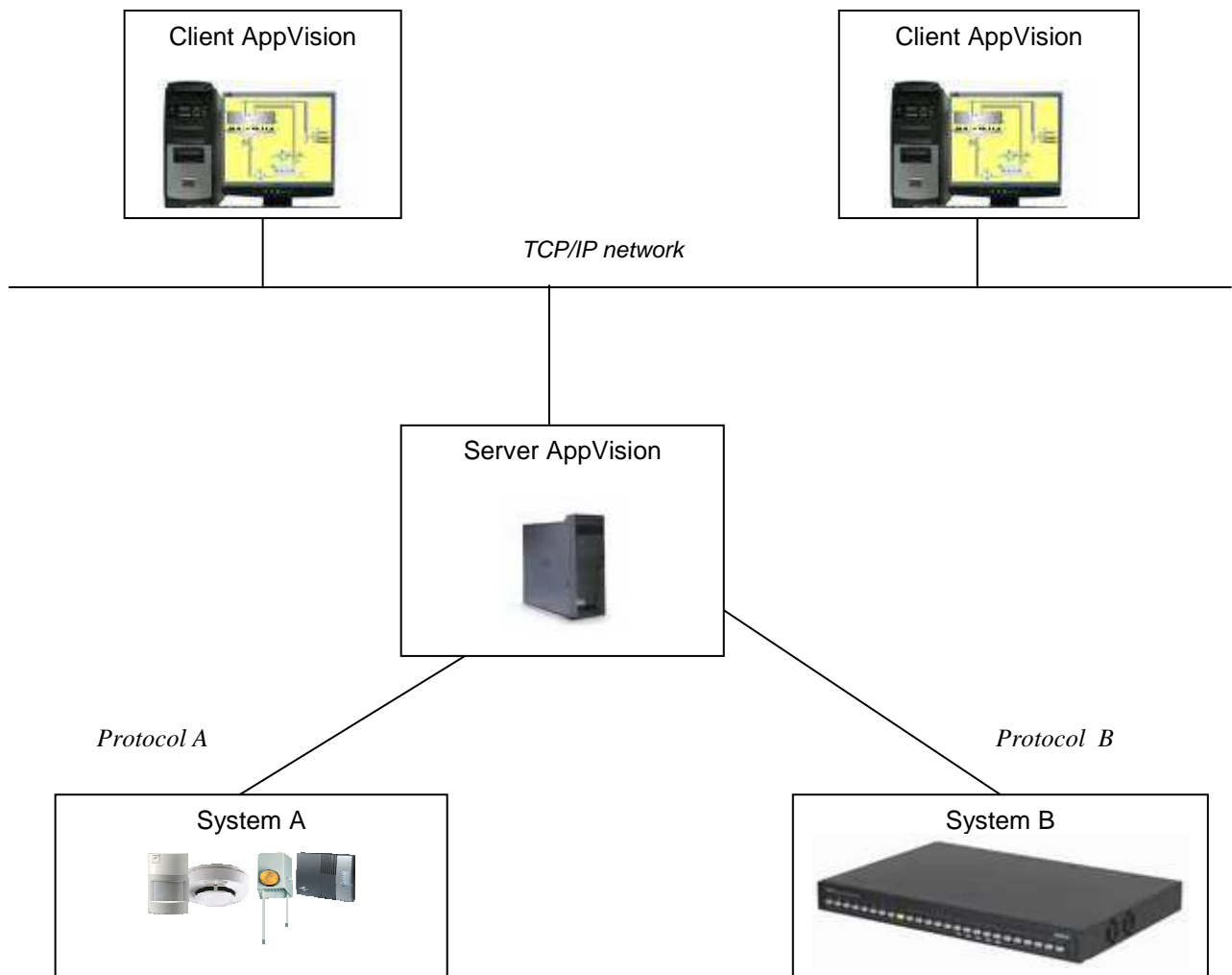
Server station :

- Server processes,
- Database,
- Communications interfaces.

Client stations:

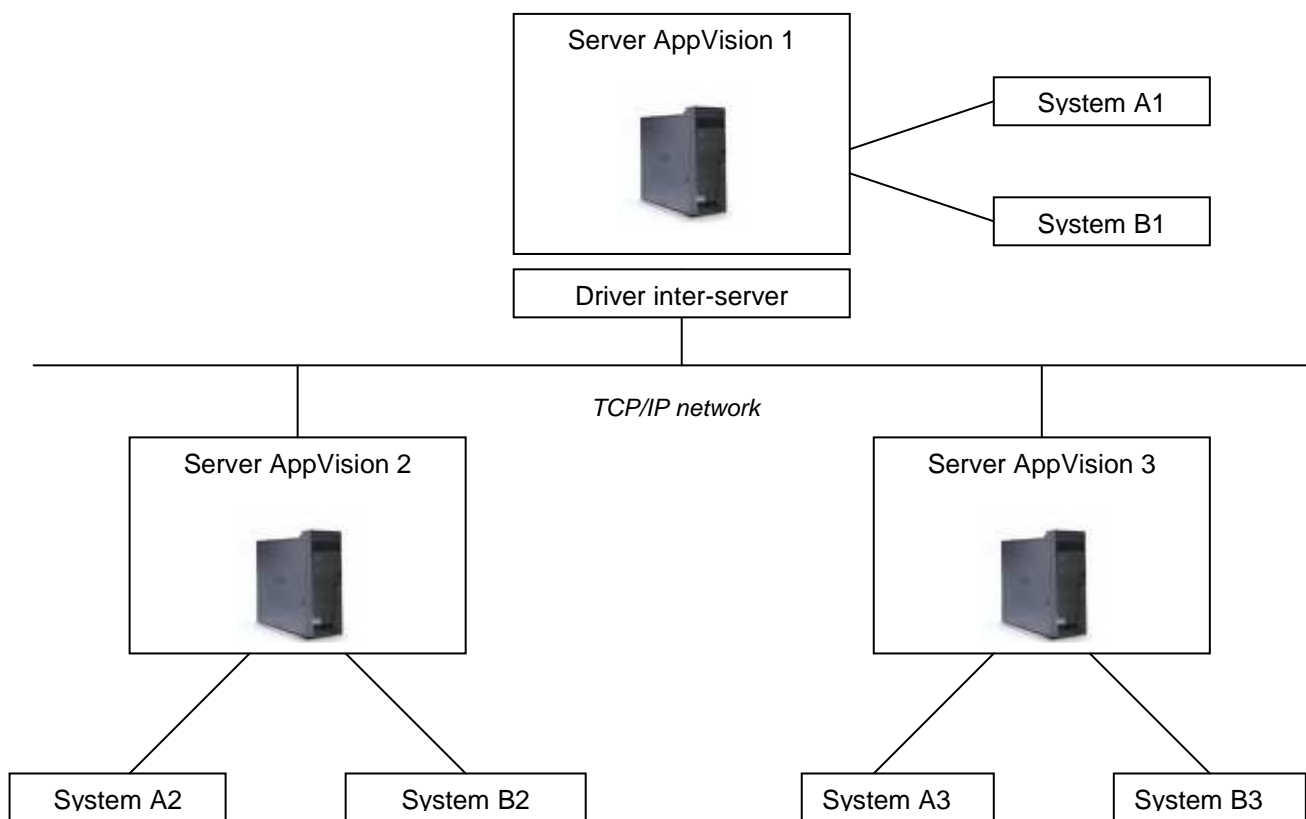
- User interface.

Note : it is possible to move the database and communication interfaces to other stations.



Architecture multi servers

Each server manages a dedicated zone (or type of equipment) autonomously using a local database. Using an 'inter-server' driver mechanism each of the local (or product) servers communicates bidirectionally to ensure the synchronisation and management of the whole installation in real time, irrespective of geographic location.



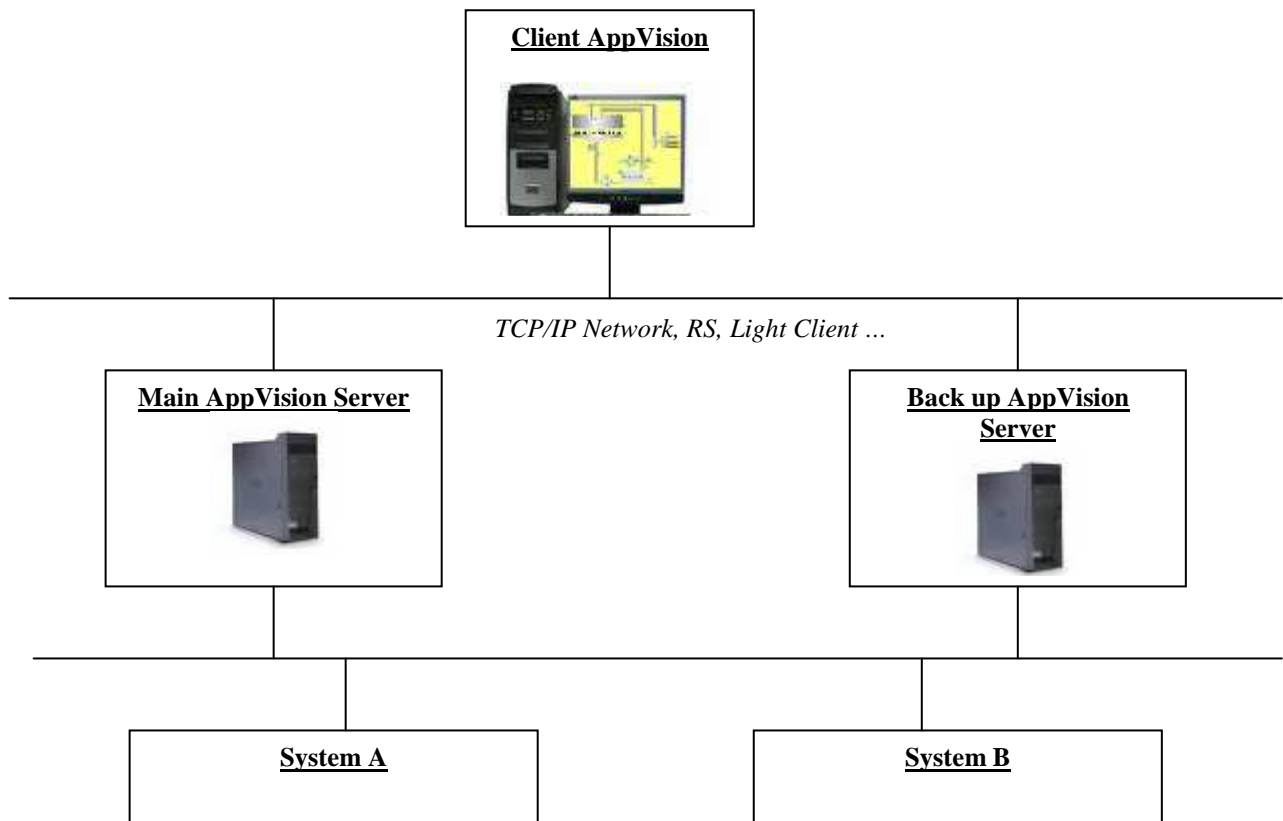
Architecture redundant server

2 AppVision servers are installed : the main server plus the back up (or redundant) server. 2 types of configuration are possible depending on the sub systems to be managed :

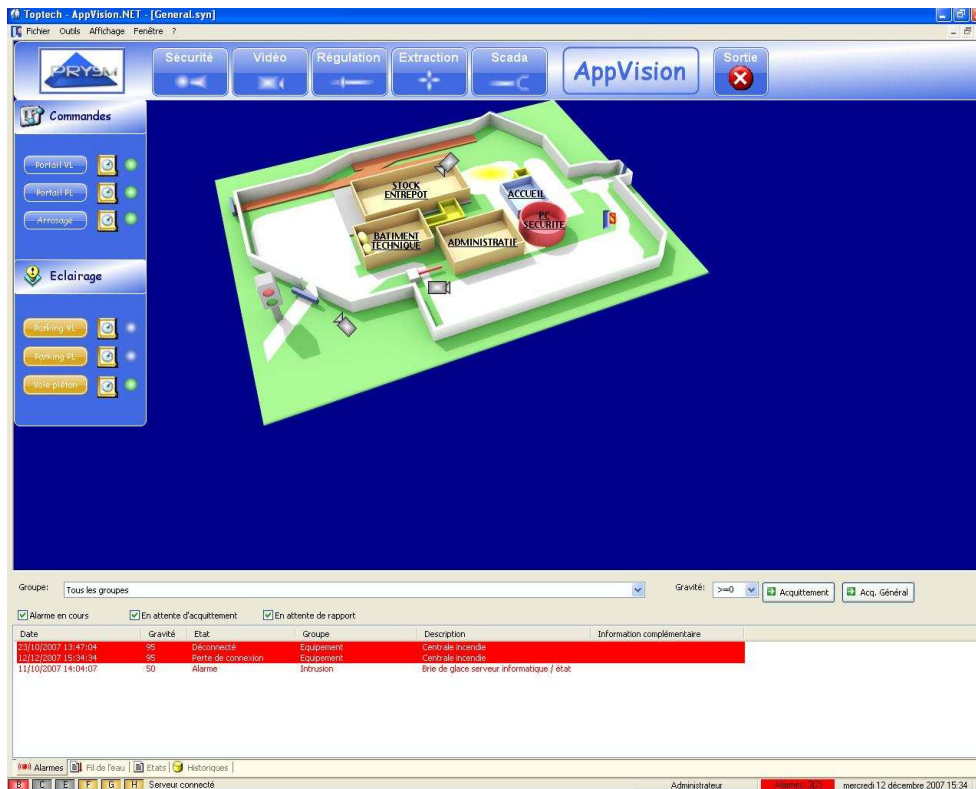
- the sub systems accept multiple connections
- the sub systems accept only a single connection

In the 1st case a live redundant connection may be possible: this means that the 2 servers are active, while the client stations are connected to the main server. In case of a system falldown on the main server the clients will automatically connect to the back up server and continue to function with no reboot needed.

In the 2nd case only the main server is active. The back up server is simply synchronised with the main server so that it can reboot in case of a main server system falldown. As with the 1st case, all clients will connect to the back up server and continue to run normally. The client stations will redirect their connections to the back up server when this server reboots.



AppVision Supervisor: Specifications



Rapid configuration – library of icons

- Used to rapidly set up AppVision deployment configurations for many different popular makes of equipments,
- Ready to use library of actionable parameters and icons,
- Existing tables of data and 'dashboards' of information for easy presentation,
- Copy and paste icons from the product specific library. Copies features with icons – contained within icon properties.

Variables

- Value are presented in data tables
- Inhibition possible for an equipment or variable : stops all related processing of value such as data acquisition, alarms...)
- Simulation mode

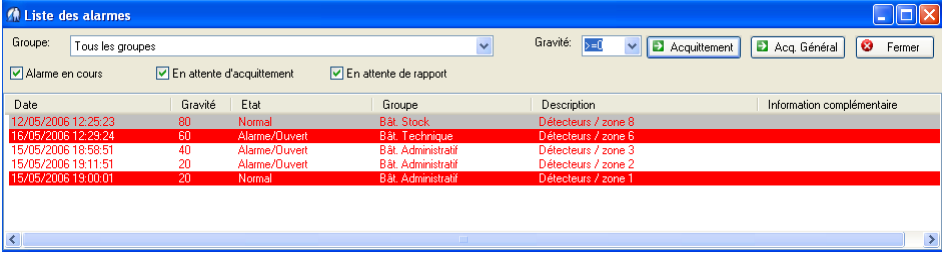
All alarm information can be shown in text format within the text based list of alarms or in graphic format such as an animated object or synoptic.

Alarms can be linked to recommendations to tell the operator how to react and treat a specific alarm. These recommendations are shown on screen once the operator has acknowledged the alarm. In the same manner AppVision can issue a sound or bring to screen the appropriate (graphic) synoptic once a variable is in alarm status.

The list of alarms can be filtered by level of importance, by alarm group or also by unacknowledged alarms (these are set up by the installer)

Alarm management

- Display of alarms in progress / unacknowledged,
- Display of simplified alarm summary,
- Acknowledgement by individual device, by group, zone or all,
- Display of recommendations on alarm : general or specific,
- On / off by alarm,
- Masking of alarms,
- Temporalisation of alarms,
- Alarms can be set to numerical values (e.g. temperatures),
- Option for operator reports presented on screen on alarm : post alarm action report,
- Broadcast of sonar message on alarm (can be sent over pc speaker or a public address system),
- Automatic 'send to' command for display of synoptics or HTML pages on alarm,
- Filter alarms by level of importance or by group,
- List of general recommendations,
- List of ready to use reports,
- Automatic send of emails on alarm,
- Automatic send of SMS on alarm,
- Alarms archives,
- Export feature for alarm list,
- Automatic save for database and XML files,
- Analysis reports can be filtered by variable, zone, group, type ...
- Display of personalisable fields using a variable value,
- Time stamped events : date, time, operator...
- Unlimited number of alarm groups,
- Number of characters for description field : 255
- Inhibition of variables during server reboot



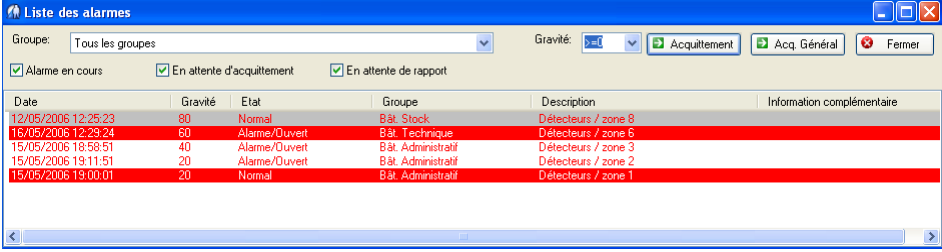
The screenshot shows a window titled 'Liste des alarmes'. At the top, there is a 'Groupe:' dropdown menu set to 'Tous les groupes'. To the right, there is a 'Gravité:' dropdown menu set to '50'. Below these are three buttons: 'Acquittement', 'Acq. Général', and 'Fermer'. There are three checkboxes: 'Alarme en cours' (checked), 'En attente d'acquittement' (checked), and 'En attente de rapport' (checked). Below the checkboxes is a table with the following data:

Date	Gravité	Etat	Groupe	Description	Information complémentaire
15/05/2006 12:25:23	80	Normal	Bât. Stock	Détecteurs / zone 8	
15/05/2006 12:28:34	80	Alarme/Ouvert	Bât. Technique	Détecteurs / zone 8	
15/05/2006 18:58:51	40	Alarme/Ouvert	Bât. Administratif	Détecteurs / zone 3	
15/05/2006 19:11:51	20	Alarme/Ouvert	Bât. Administratif	Détecteurs / zone 2	
15/05/2006 19:00:01	20	Normal	Bât. Administratif	Détecteurs / zone 1	

Remote alerts

AppVision can be configured so that it automatically sends alerts or messages via SMS or email, or to a remote pc via internet (with adequate login password rights).

The remote station can thus gain access to real time alerts (where allowed).



The screenshot shows a window titled 'Liste des alarmes' with a table of alarm events. The table has columns for Date, Gravité, Etat, Groupe, Description, and Information complémentaire. The events are listed in descending order of time.

Date	Gravité	Etat	Groupe	Description	Information complémentaire
12/05/2006 12:25:23	80	Normal	Bât. Stock	Détecteurs / zone 8	
15/05/2006 12:23:24	60	Alarme/Ouvert	Bât. Technique	Détecteurs / zone 6	
15/05/2006 18:58:51	40	Alarme/Ouvert	Bât. Administratif	Détecteurs / zone 3	
15/05/2006 19:11:51	20	Alarme/Ouvert	Bât. Administratif	Détecteurs / zone 2	
15/05/2006 19:00:01	20	Normal	Bât. Administratif	Détecteurs / zone 1	

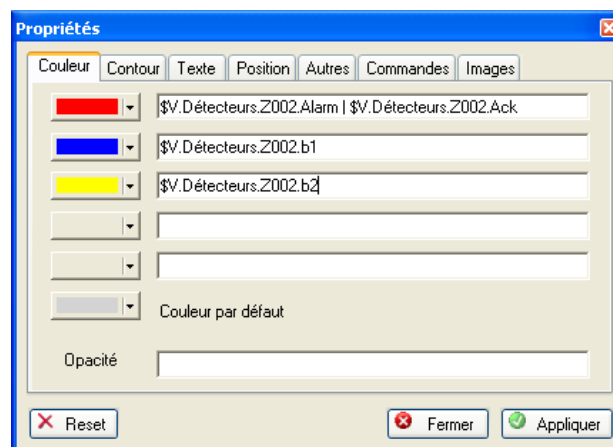
There is no limit to the number of synoptics that can be used in a configuration. Installers should organise the presentation and access to the various synoptics that best fits the project requirements. Please consult us if help or training is required.

Vector Zoom: AppVision.NET includes the vector zoom feature. This enables users to enlarge or reduce synoptics in size (using the control keyboard button + mouse wheel) with no loss of picture quality or proportions.

Multiple windows : AppVision allows you to open multiple synoptic windows at the same time.

Synoptics and object icons can be animated to attract attention when needed. This is done via the properties menu (right mouse click over the desired object) from where it is possible to select the required graphic parameters for each object: colour, position, dimensions, flashing, ... in function with the status of the associated variable.

Likewise, each object can be associated with specific execute commands once the object itself is activated. . The user can thus take manual control over the system in the event of an alarm to remotely control a specific equipment device.



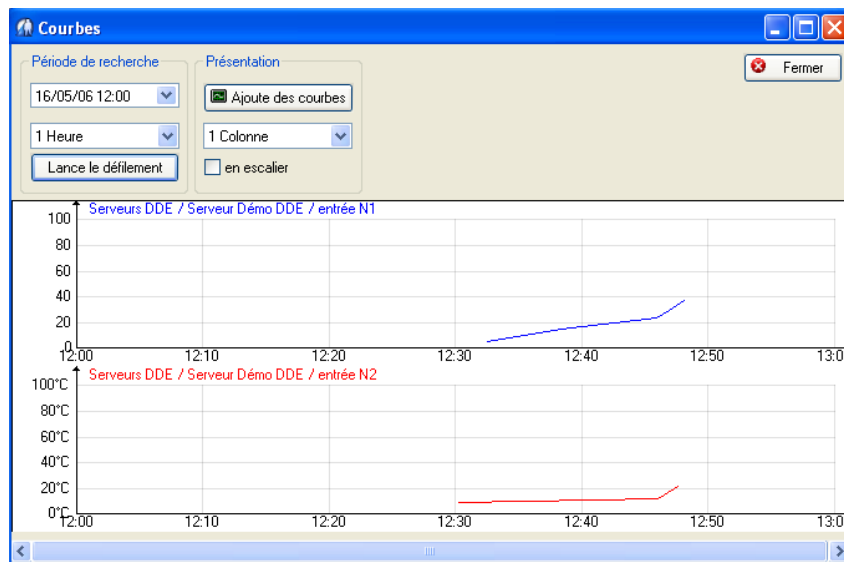
Graphs and statistics

- Display of real time graphs for different variables,
- Real time or from archives,
- Calculation of statistics using graphs: values min /max, averages, ...,
- Export graphs and statistics.

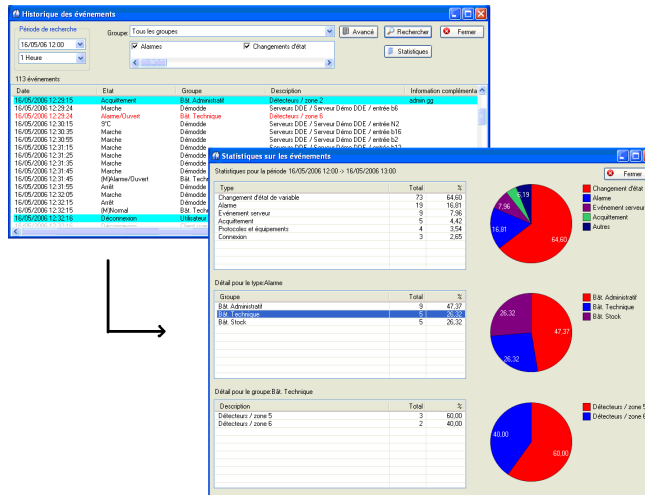
Graphs are used within AppVision so that users can follow the evolution of a single or multiple variables over time.

The graph display module enables the user to select the variables that are managed by AppVision and present them on screen. When placed aside other variables simultaneously the user can compare data from each source. These can be placed on screen in various formats : superimposed, horizontally or vertically.

The selected variables are shown in real time with automatic progression, or required from archived data.



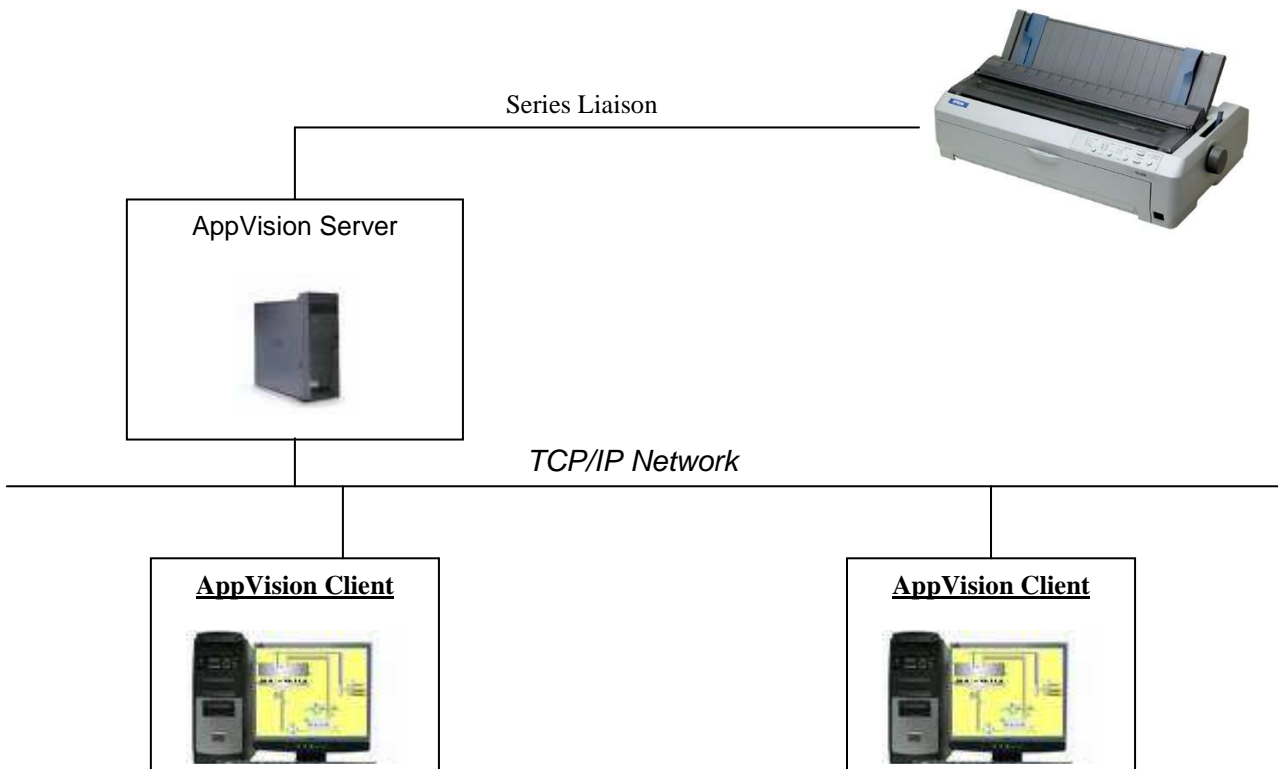
The *Statistics* feature enables the user to visualise some basic calculations for the managed variables on screen : minimums, maximums, averages, delta differential, average differential, sums of.....and so on.



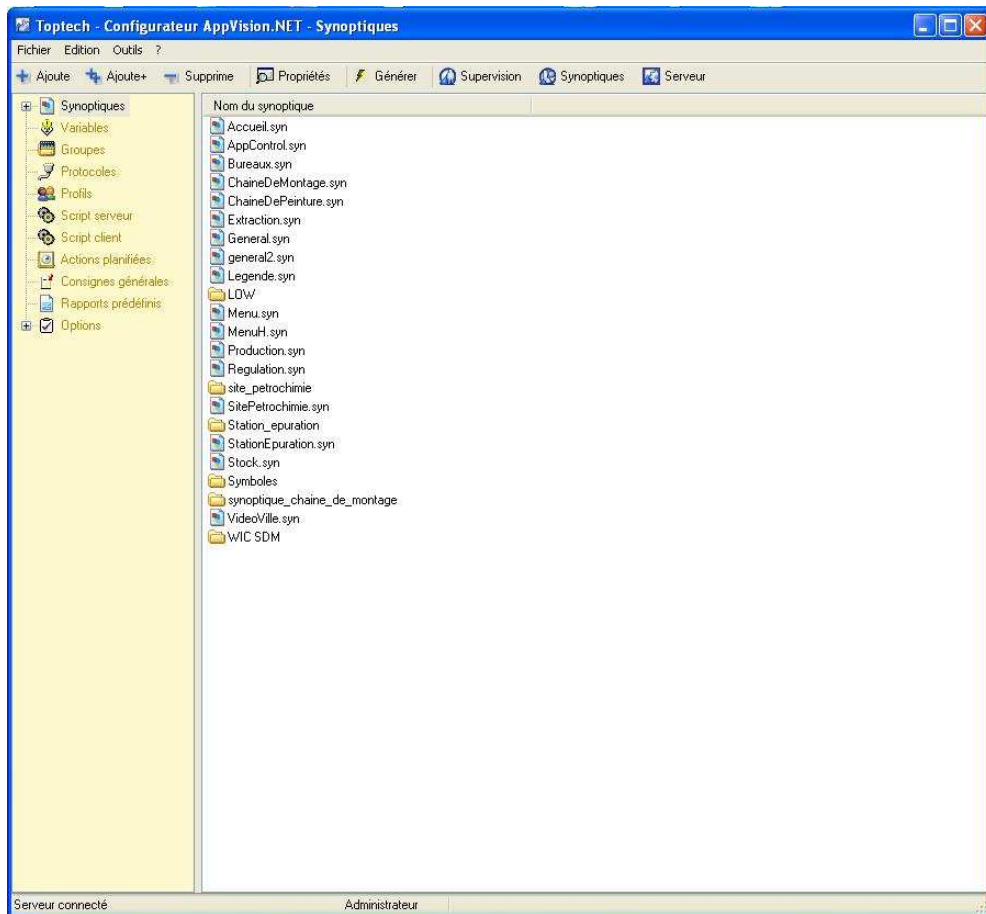
Printing

AppVision enables real time data to be printed out using standard dot matrix or suitable real time printers. It is also possible to print out the majority of elements contained within the AppVision software including synoptics.

Printer connection :



AppVision Configurator : Specifications



Database

- 2 databases are used : one is used for the configuration in use (variables, protocols, groups , users...), while the other contains archives (time stamped events, archived real time data for use in graphs and statistics),
- Flexible choice of database : SQL is the standard selection while for small installations Access can be used,
- Can link to external databases using SQL Server, Oracle, or other OleDb format databases,
- Import –export tool that allows users to select tables within databases.

Programming & Scripts

- AppVision contains a scheduled program feature that enables users to schedule the switching on or off (or partial on/off where appropriate) of suitable equipment.
- The scheduled program is a simple to use colour coded graphic based interface that incorporates daily or weekly programs as well as holidays and days off,
- Hourly schedules with multiple equipment status,
- Incorporates server scripts that render events management automatic,
- Also client scripts that can be used to customise the user interface,
- Automatic task management of regular or irregular tasks,
- Programming languages : .NET (C# or VB.NET) : for scripts, scheduled programs and synoptic animation,
- SDK supplied to integrators / manufacturers for own development of communication protocols (where integrators / manufacturers choose to develop themselves),
- SDK supplied to integrators / manufacturers for own development of cctv integration (where integrators / manufacturers choose to develop themselves).

Multiple protocols

- AppVision supports many standard communication protocols used by the building & security automation and SCADA industries: Modbus, ModbusTCP, Client OPC, Client DDE, ...
- AppVision has also been integrated with many proprietary protocols that are managed directly by our software. This includes :
 - Intruder detection panels,
 - Fire protection panels,
 - Access control systems,
 - CCTV surveillance cameras, DVR's and NVR's.
- We integrate many new equipment systems each year,
- Our SDK enables technical partners to directly integrate new systems.

Multi user

- Login to AppVision is with a personal user code and password,
- AppVision enables installers to establish a user profile that reuses identical user rights for various users,
- Each profile is set up with various access options that can be used to limit user access to specific features,
- It is possible to establish a specific configuration for each user – AppVision loads the users own configuration based upon the login used. The synoptics loaded for a user may be related to their specific job responsibilities,
- Various script entry points for connection to external applications and devices,
- User specific information filters,
- User specific access to scheduled programs,
- Unlimited number of users,
- User actions fully traceable by login and password,
- Fully configurable user interface : page/synoptic presentation, access rights to synoptics, devices, specific equipment, zones, variables and groups.

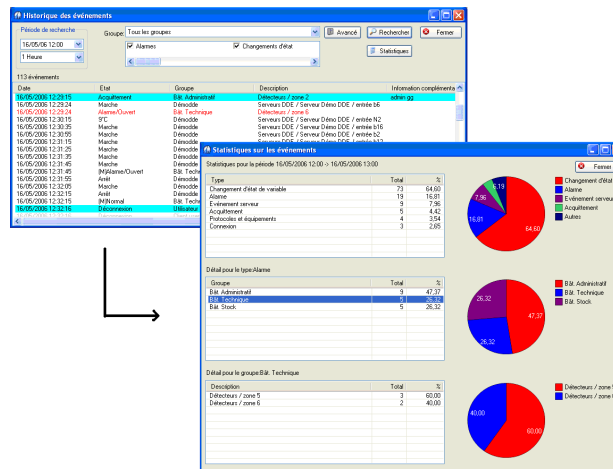
Variables

- Maximum number of characters for variable names : 255
- Maximum number of variables connected : unlimited
- Description field for each variable
- Variable management by name
- Alarm declaration / variable declaration
- Configurable order for variable bytes

AppVision contains a data import-export tool that is used to transfer data, specific configurations and archives. A separate tool is used to save data and restore configurations.

AppVision also contains various archives used to store various types of information :

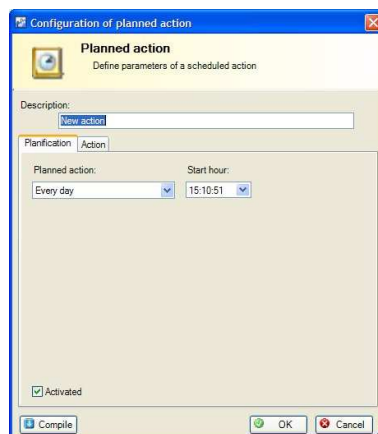
- General archived events,
- Alarm management archives,
- Real time progressive variable archives that is optimised to display graphs and calculate statistics,
- User modifications archive : all configuration modifications are stored for each user so that they can be recalled when needed.



AppVision natively integrates all languages that are supported by the .NET platform : C#, VB.NET, ... it is therefore possible to write script commands using a standard programming language. Compiled scripts are executed directly by AppVision using DLL's.

Task management and scheduled programs

Using the AppVision Planned Action tool enables users to simplify the start up / close of regular actions for a specific equipment or group of equipments. These can include periodical events : daily, weekly, monthly ...



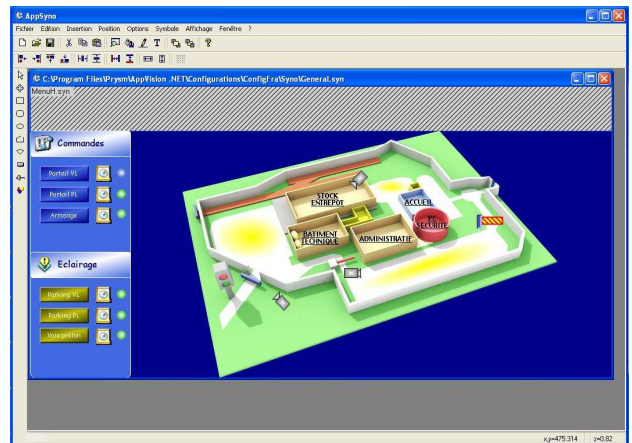
AppSyno Graphic Editor : Specifications

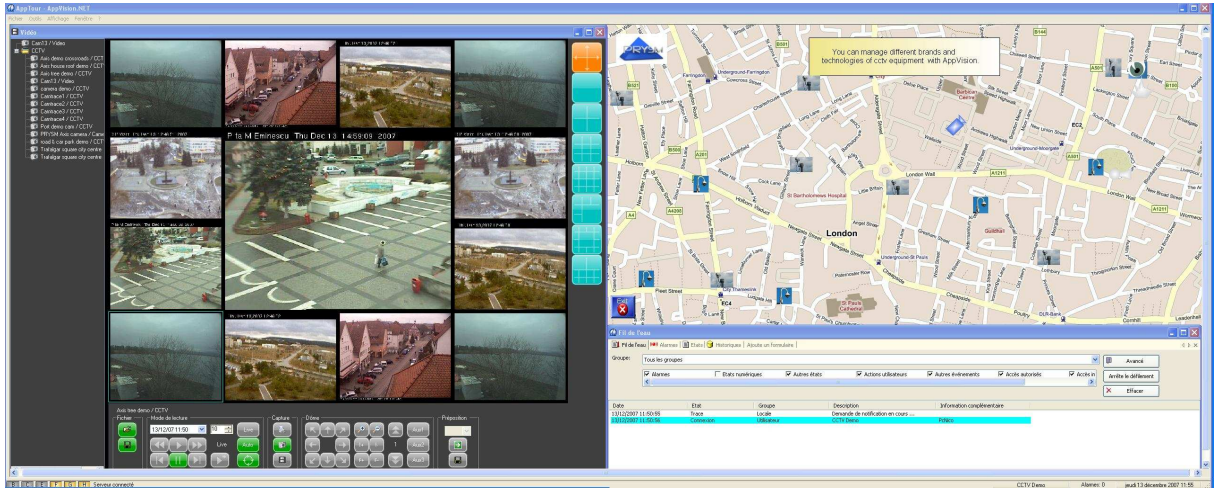
AppVision contains its own graphic edition application used to create synoptics : graphic representations of a physical zone or automation equipment.

Once created, synoptics are viewed in the AppVision front end application to visualise the status of all the managed variables and to send commands to specific equipment systems.

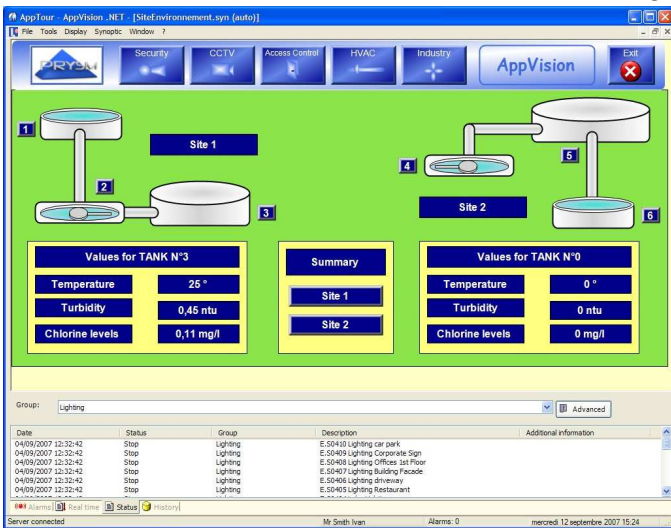
Graphic synoptics - characteristics

- Unlimited in number and use with our license structure,
- Unlimited number of commands and animations,
- Zoom dynamic and automatic,
- AppSyno is a vectorial graphic editor – respects image quality and proportions during zoom,
- Symbol creation and animation,
- Preanimated symbols ready to deploy,
- Import symbols and images in standard formats : BMP, JPG, moving GIF, ICO, WMF ...
- Import Autocad technical floor plans : DXF format
- Insert .NET controls and ActiveX,
- Insert CCTV controls,
- Frames within windows (integrated into synoptic),
- Multiple windows and screens,
- Copy and paste objects into synoptics,
- Copy and paste animation properties into objects,
- Define display position,
- Dynamic use of colours on change of status,
- Dynamic use of flashing icon on change of status,
- Dynamic use of text on change of status,
- Tool tips,
- Arrange size and position of objects,
- Create commands associated with objects,
- Create dynamic on screen menus,
- Supports transparent images,
- Group objects together,
- Unlimited number of synoptic levels,
- Access to application via scripts,
- Library of symbols.

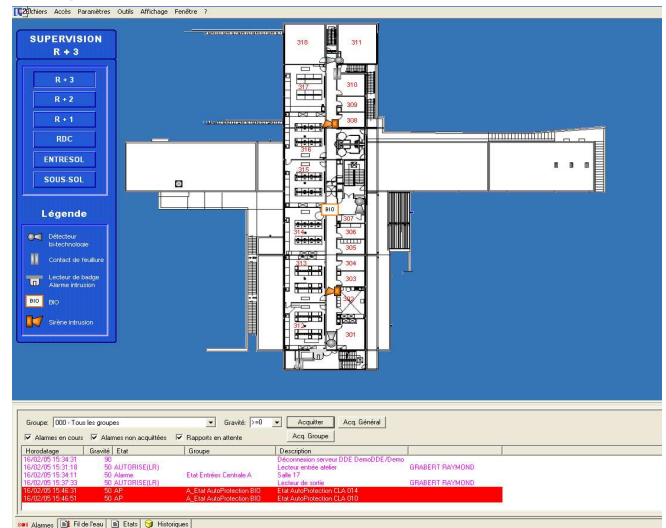




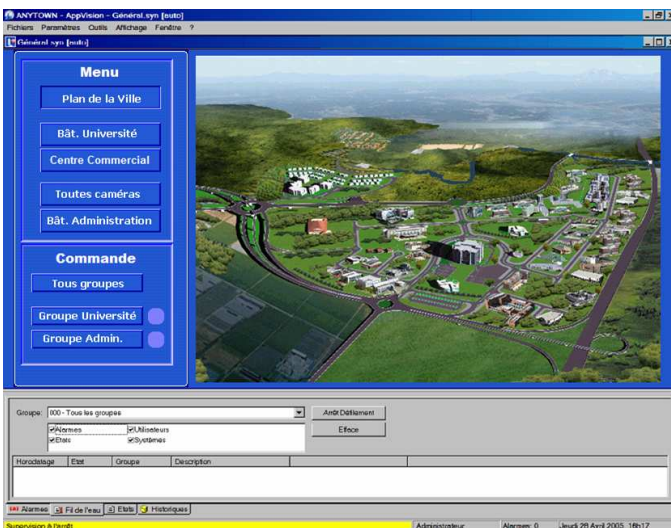
Example of a cctv command & control synoptic in multivision mode 12+1 on 2 screens with integrated maps



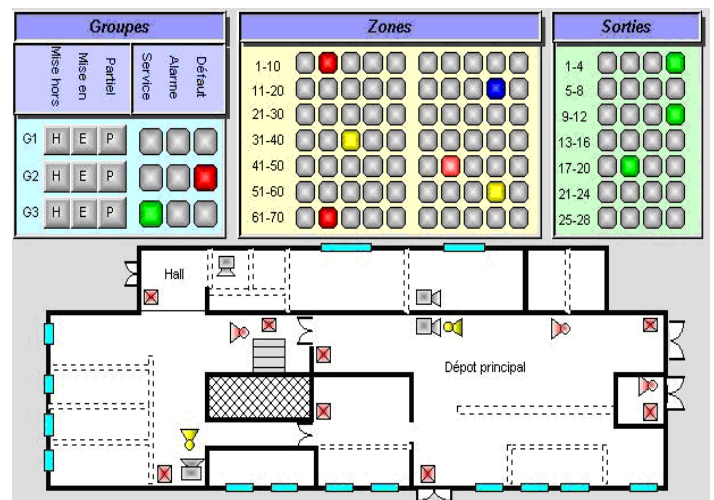
'Fuel Management' application synoptic



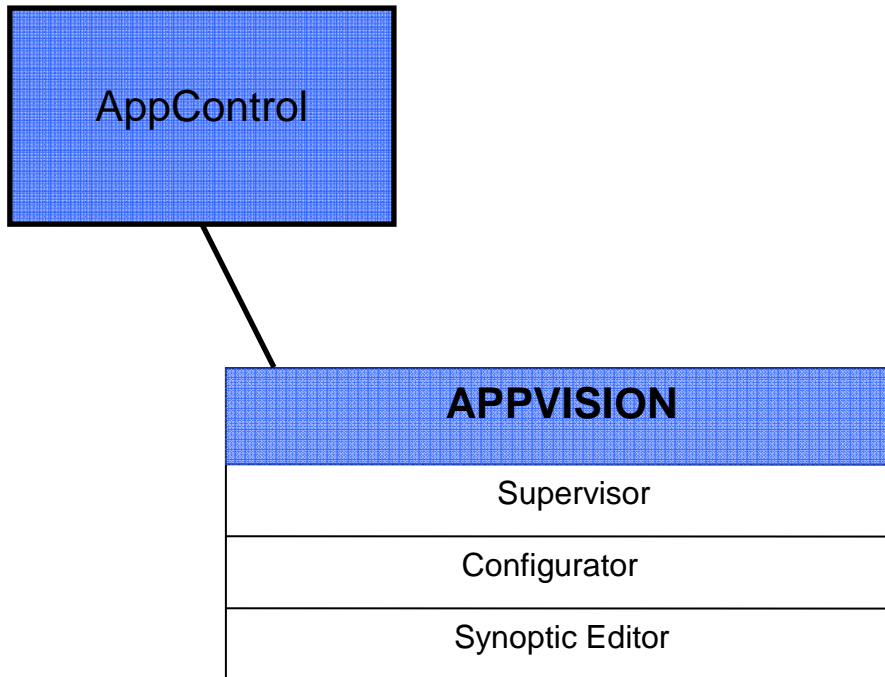
Security application synoptic (university)



Town centre application synoptic : security & lighting



Access Control via AppControl module



AppControl is a self contained module that contains a full range of features and databases for access control applications. The AppControl module can stand alone or be fully integrated with the AppVision product and other modules.

Features may depend on the limitations of the access control hardware that AppControl manages, but will generally include :

- Access management : database of all cardholders,
- Temporary badges,
- Zonal administration and access right,
- Cumulated time spent on site : can be linked to payroll application,
- List of persons present on site,
- Link to cctv application,
- Event archives,
- Scheduled programs,
- Freedom to choose best of breed equipment : AppControl manages the system you choose,
- Connect legacy systems to newer technologies: AppControl is able to manage different system protocols at the same time,
- Multiple users : system access by login and passwords with various levels of administration rights,
- Multiple work stations : server / client infrastructure with light clients,
- Internet access to administrator application : change cardholder access remotely

Prysm Software does not sell or manufacture any equipment. AppVision and associated modules are therefore capable of being integrated with various equipment brands and technologies sold into the security and building management markets.

This represents a significant cost and technological advantage to end users who remain free to integrate and change equipment systems as necessary. This is not the case where the command and control software is 'closed' towards full integration with all equipment systems. Changing equipment in bundled deployments of this kind may also mean changing the whole installation.

The following access control systems are already compatible with AppControl.

- ARD Isoview
- Aritech Master
- Sytel
- Nedap AEOS
- GE Security SECUREPERFECT

With AppControl, an access control application becomes part of a fully integrated security management system.

Please also note that use of this module is not required for access control software communication with AppVision where the manufacturer supplied access control software is open to external communications.

There are many different access control systems that are able to 'gateway link' to AppVision so that all badge and security events that are managed by the access control infrastructure can also be centralised into AppVision. This is generally achieved by using a standard protocol that both AppVision and the access control software are able to understand. This may include ASCII, MODBUS, OPC or even a dedicated software integration such as has been completed with the NEDAP Aeos software.

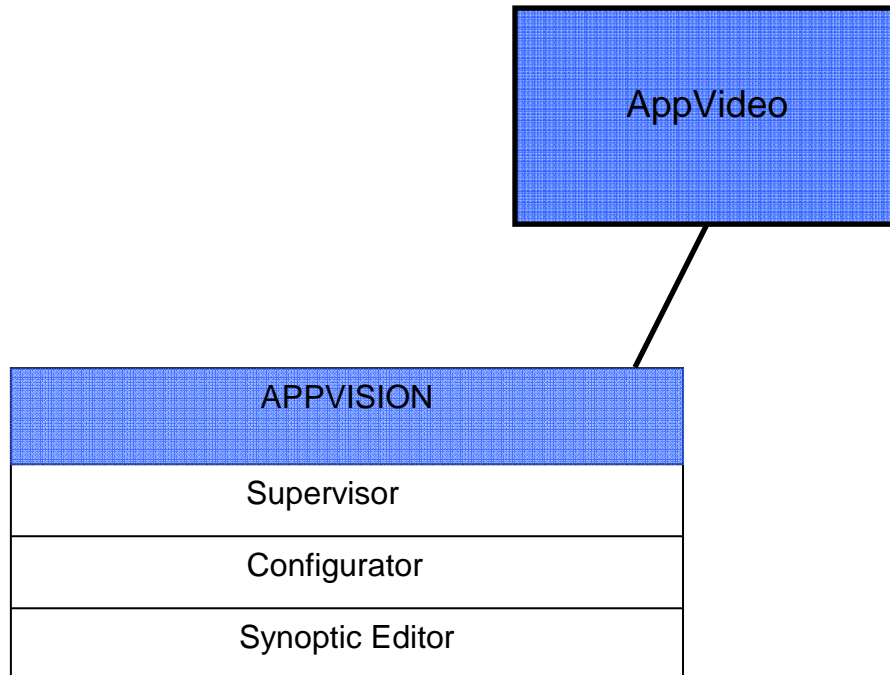
Access management :

- List of permanent badgeholders,
- Administration of badgeholders : add new, deletions, modifications,
- List of temporary and visitors badges,
- Administration of temporary and visitor badgeholders : add new, deletions, modifications
- Management of zonal access by cardholders,
- Multi criteria and configurable filters and sorts.

Light client : remote access via Internet using AppControlWeb.

- AppControlWeb has been developed to provide remote administration access to AppControl. Access is gained through company intranet or from the internet using an administrator level password and login,
- AppControlWeb is compatible with AppControl versions 3.0 and above,
- AppControlWeb requires the installation of Microsoft IIS server,
- Access is best obtained using a standard internet browser optimised for IE 6.0

Video surveillance management via AppVideo module



AppVision contains a specific module application for use with video surveillance systems : cameras, domes, digital video recorder, nvr's matrices, ... The AppVideo module standardises the way that video surveillance systems from different manufacturers and technologies are used.

- Suitable for use as professional level cctv command and control system,
- Integration of different brands and technologies of video surveillance systems into a standard command & control platform,
- Use of synoptics to easily localise cameras on maps and floor plans,
- Link up alarms from other security or automation systems to live cctv or recorded playback,
- Easy selection of cameras to view in multivision mode,
- Multivision display : 2x2, 3x3, 4x4, 5+1, 12+1, 8+2
- Display of live and / or playback when coupled with recording devices,
- Automatic display of selected cctv window upon alarm event,
- Enables time delay presentation of multiple cameras,
- Display presentation mode fully configurable by user,
- Integration of cctv windows with graphic plans and synoptics,
- Display of text for each camera,
- PTZ control of domes : from within cctv windows or from the AppVideo control panel,
- Supports the use of external display devices : monitors, IP decoders or walls of monitors,
- Capture photo, capture video, print screen,
- Coming soon : return position for domes,
- Can also be integrated with tracking and analytical software such as KAOLAB.

Advanced features

- Mix different video systems : complete manufacturer independence,
- Mix different system technologies : analogue or IP, (generally DVR / NVR),
- Liaison with other sub systems : automation, intruder panels, fire panels, access control, communications and broadcast systems ...
- Masked zones : can be used to prevent users from visualising images in specific zones deemed to be restricted.

Visualisation

Users have the option to select from a range of video surveillance sources to be displayed :

- From a list of cameras : organised in hierarchy,
- Select and slide from the list of cameras,
- Select and slide from the graphic plans or synoptics,
- By simply clicking on the relevant camera icon located on the graphic plans or synoptics,
- From the text menu on the graphic plans or synoptics,
- By choosing a pre-saved display configuration.

Different sources of video surveillance cameras can displayed at the same time in multivision format : 2x2, 3x3, 4x4, 5+1, 12+1, 8+2.

This feature allows users to display live feed or on playback when linked to recording devices.

This can also be rendered automatic in specific cases :

- 'Send to' feature automatically displays live cctv feed for a zone when it changes to alarm status : alarms can be triggered by external devices such as alarm panels or from internal camera motion detectors,
- It is also possible to roam between a selection of cctv windows automatically upon alarm,
- Pre programmable roaming : automatically switch cameras with timed delay and dome pre-positions,
- Switch to feature for cameras in alarm status : display last cameras that were in alarm status (alarms can be from external devices such as alarm panels and not necessarily from camera own motion detection) : N, N-1, N-2, ...

In multivision AppVideo can easily be switched to full screen display by double clicking on the desired cctv feed.

The display modes described in this document apply to the internal display application as well as for external devices such as monitors, IP decoders, walls of monitors.... AppVideo contains a command screen that enables installers to easily configure external display devices.

As with other applications within AppVision, our graphic interface integrates standard image formats : BMP, JPG, GIF, WMF, EMF and DXF and can be completely customised using a library of internal symbols.

Graphic plans can be incorporated into cctv control room applications for ease of use.

Consultation features :

These elements are possible only when AppVideo is connected to DVR / NVR players. Users have the option to search from recorded cctv images :

- By selecting the recording device or cameras and the desired time / date,
- Or from the alarm event or archived event fields where a video device has been associated (during the configuration of the application).

In the last case, alarms and events associated to video device are displayed in the real time or archived lists with a cctv icon.

When accessed AppVideo will automatically position the playback start time to precede the event. Playback images will therefore show images starting from before the alarm was triggered.

The consultation interface contains the following functionalities:

- Simultaneous playback display of multiple video sources
- Playback synchronisation of multiple video sources,
- Fast forward search and rewind,
- Pause,
- Instant replay
- Frame by frame forward / backward search,
- Export for video images into standard format,
- Image capture,
- Print image,
- Return position for dome cameras : coming soon for specific DVR / NVR makes.

Dome control features

Users can control dome cameras in association with AppVideo in different ways :

- Directly from the DVR / NVR players using classic PTZ functions within the AppVideo interface,
- Using the mouse by clicking on the image to pull the dome in the desired direction or zooming with the mouse wheel,
- Using a compatible joystick,
- With a standard console for dome cameras.

In addition it may also be possible to control other elements with certain makes :

- The camera iris,
- Focus,
- Auxiliary elements such as lens cleaning...
- Dome speeds.

Dome control can also be achieved using prepositions that are commanded by AppVideo.

These prepositions can be linked to other AppVideo or AppVision alarms or events so that the domes are automatically sent to the required positions when needed.

Event acquisition features

AppVideo centralises system management and incorporates change of status events or alarms produced by video surveillance cameras :

- video surveillance signal presence,
- Mask cameras,
- Detection of movement,
- Counters,
- SNMP protocol communications: frequently used in network management to monitor connections. This is used by AppVideo & AppVision to check system connections with different IP based technologies such as DVR's or routers,
- Hard disk space.

Purpose built graphic interfaces can easily be developed to better present these events and alarms.

Administration features

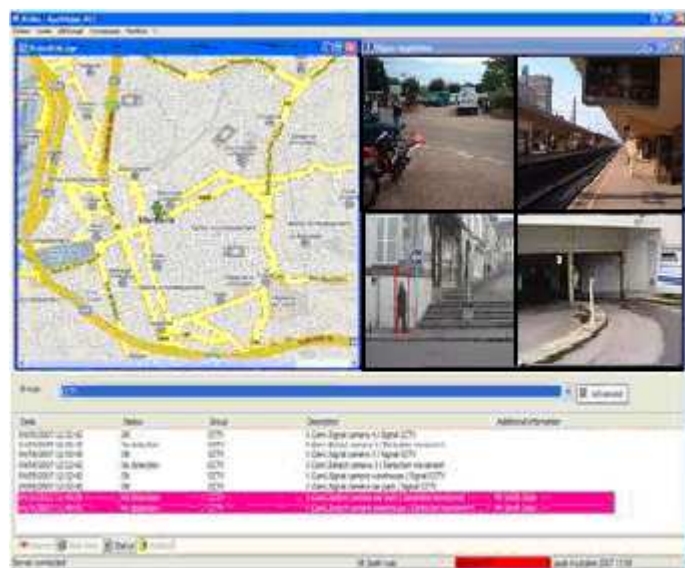
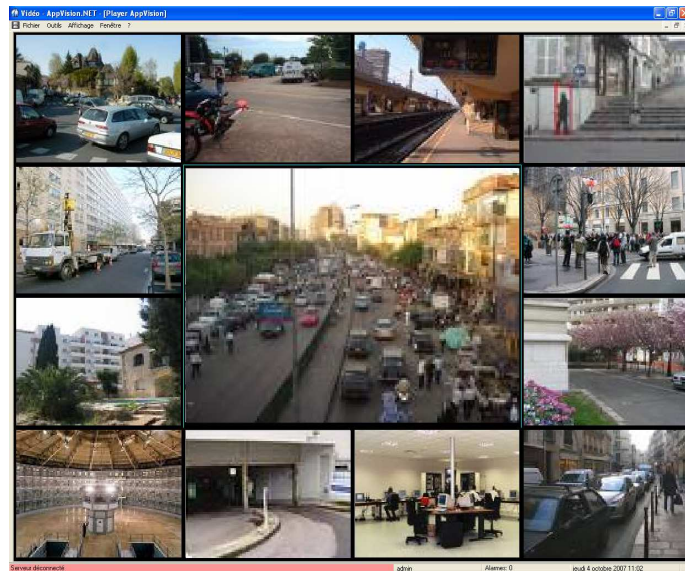
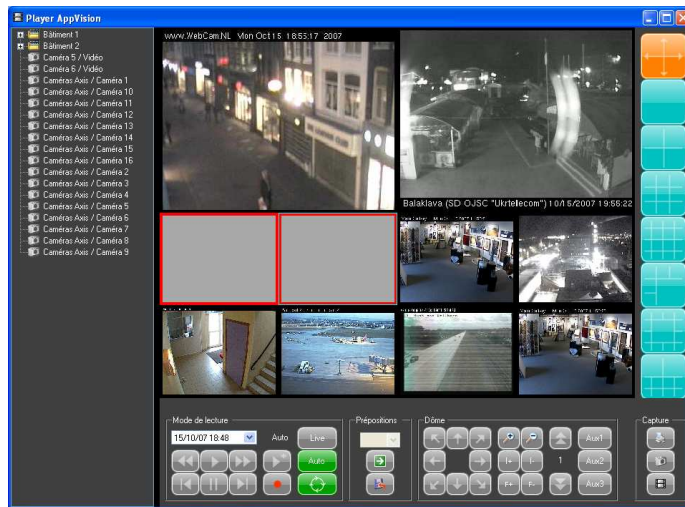
Using the built in user administration tool that organises user rights by profile type it is possible to precisely define the following features access :

- Live display of cameras,
- Playback,
- Dome PTZ,
- Filters to specific video surveillance systems and sources,
- Time period limits for access to recorded video surveillance footage,
- Time period limits for access to archives and events,
- Configuration of camera roaming and prepositions,
- Print function,
- Still image capture or video,
- Configuration of AppVision main command application,
- User profiles and management,

AppVision records all user driven events and actions :

- Connections/Disconnections,
- Alarm acknowledgments,
- Alarm reports,
- Live videosurveillance connections,
- Use of playback features,
- Dome PTZ movements,
- New preposition settings,
- Use of camera roaming,
- New roaming settings.

Video surveillance : some application screenshots



List of device protocols currently supported by AppVision and sub modules

Automation equipment

- MODBUS / JBUS master or slave (Modicon, April, ...)
- MODBUS TCP client or server,
- KONNEX (KNK) / EIB
- SYSMAC-WAY (Omron)
- MELSEC (Mitsubishi)
- SOFBUS (SOFREL)
- MEWNET (Matsushita)
- DF1 (Allen Bradley)
- SUCOMA (Klockner-Moeller)
- PROFIBUS
- TRS II (WIT)
- Client OPC DA & Client OPC AE

Fire alarm systems

- CHUBB SECURITY
- Siemens
- DEF
- ESSER
- Finnsecur Fire Panel
- GE EST 3/FACP (MODBUS link)
- MORLEY Fire Panel (MODBUS link)
- MODBUS protocol : frequently used in fire systems
- Other fire panel SDK's have been evaluated and await projects to be completed. These include Kentec, Advanced Electronics and Morley.

Intruder and perimeter alarm systems

- Honeywell Galaxy – (including Dimension)
- Siemens Sintony SI400
- Ard Isoview -
- GE Security / Aritech CD95, CD150 –
- GE Security / Aritech Master -
- Bosch DS7400
- Honeywell Europlex APLEX, 3GS
- Elkron MP200, MP110
- Bay 3200 - Septam
- DIALOG 128 – Tecnoalarm (awaiting new SDK for latest products)
- Guardall
- SouthWest Microwave Intrepid Micropoint and Microtrack
- Zareba Perimeter Systems
- Other intruder panel SDK's have been evaluated and await projects to be completed. These include Cooper 95EN Scantronic and Texecom Premier

- codeurs 8 voies S68-E
- Enregistreur I-NVR 16000

Video surveillance : AppVideo CCTV video wall module

Analogue

- Bosch Divar 1, 2 &
- Matrix Allegiant - Bosch

- Sensormatic Intellex

- Geutebrück Geviscope
- Argos DVR
- Dedicated Micro
- Matrix Lilin

Digital / IP

- Bosch Dbos
- Bosch VideoJet 10, 100, 1000, 8000, 8004, 8008
- Bosch VIP-X, 10, 1000, 1600
- Bosch Dinion IP
- Bosch Autodome IP
- Bosch NVR / BVMS

- Pelco DX8000 series, Endura **
PELCO SDK instability.
Please check status
- NiceVision
- Mobotix
- Axis
- Sony Ipela
- Vivotek
- VDG NVR & analytics
- ONSSI NVR
- CamTrace NVR
- Milestone NVR
- JVC NVR
- Foxstream Video Analytics
- Honeywell Active Alert Analytics
- Samsung techwin
** SDK instability.
Please check status
- Genetec Omnicast VMS
- Geovision range
- VideoLan (VLC) driver for MPEG driven cameras
- Avigilon VMS
- Optelecom NKF I NVR 16000
- Optelecom NKF 8 channel encoder S68-E

AppVideo can also connect to and display most cctv systems that use internal web servers

ANPR

These ANPR systems can be directly managed in relation with AppVision.

- Capflow
- Survision

Most other systems can also be centralised using a compatible VMS such as Milestone , Genetec or similar.

Video Analytics

These systems can be directly managed in relation with AppVision. Most other systems can also be centralised using a compatible VMS.

- Foxstream Video Analytics
- Honeywell Active Alert Analytics

Access control :

AppVision can gateway connect to most quality access control software applications via a common protocol such as OPC or Modbus.

Drivers or common protocol exists for :

- Isoview – Ard
- HID Vert X : direct with AppControl module
- Master - Aritech
- Sytel
- AEOS - Nedap
- Assa ARX
- GE SECUREPERFECT
- GE Facility Commander
- GE Picture Perfect & Casi Rusco
- Europlex 3GS
- AppControl : our own access control module which can be used to integrate and directly command access control hardware. Only available for manufacturers who release full hardware SDK's.
- Sensor Access Guardpoint Pro
- Cardax (Gallagher)
- Synchronic
- DDS
- TDSI
- Siemens (OPC)
- Many other systems are also possible with little or no integration

Awaiting projects for completion

- Paxton access control
- JANUS
- CCure
- PAC

Intercom / Public Address Broadcast / sound systems

- VX2000 – TOA
- Commend
- Zenitel Stentofon

Other protocols

- ASCII
- TCP / IP
- DDE
- Inter server : internal protocol that enables AppVision to be synchronised with several remote sites
- SNMP : e.g. detect and monitor connected devices on a network

This list may not be exhaustive. Many new protocols are integrated each year.

New integrations are undertaken at very competitive rates.