MEGAsys INTEGRATED SECURITY MANAGEMENT SYSTEM

High-end Server/Client GUI System

MEGAsys IMS

- ***Access Control, Intruder Alarm, CCTV, Digital Video, Intercom and Public Address Control.***
- ***GUI software for MS-Windows Platform, IBM compatible PCs using mouse operation***
- ***Provides full matrix camera to monitor control, pan/tilt/zoom lens control, alarm handling and Access Control.***
- ***Uses true graphical representation of the facility.***
- ***True Chinese graphical operation system***
- ***Fully integrated Security Alarm, CCTV and Access Control in one operating System***
- ***Support TCP/IP Network.***
- ***DVR/NVR /Net-camera Remote Managements.***
- ***Server/Client Architecture***

Multi-tasking

Control of up to 3 different systems, real time alarm reporting, access control management and matrix cctv control, alarm interlock and macro interlocking provides full manage and control function.

Icon Control

Control icons can be placed anywhere on a programmed map, display to graphically represent the location of cameras, alarm device, control keyswitch, card reader , door and gate, etc. Icon operation enables full control and predefined functions, such as pan/tilt lens control, door access control, alarm secure/access mode control, etc.

On Screen Video

Video from activated camera icons can be displayed on the computer monitor with pan/tilt zoom lens control functions.

Password Protection

System access is protected by password, 8 users level and 50 operators can be assigned for restricted access to specific functions.

User Friendly

Simply operate the highly security management by moving a mouse.

Floor Plan Design

Allow user to draw complete facility floor plans, (BMP/JPG/GIF format) drawing capabilities include functions for line drawing, boxes, ellipses, arcs, shading, patterns and more. Multiple map layers enable “zoom in” and “zoom out” capability.

Alarm Management

2048 alarm points can be connected to remote alarm processing unit (ET-8C500, ET-8C800) 16zones input or 64 zones input control unit c/w anti-tamper protection circuit, redundant communication loop, standby battery self diagnostic and programmable output function.

Operation Mode

Alarm operation mode can be defined as: timer “secure/access”, manual operation (by local keyswitch) and control by card access control system.

Alarm Mode

Secure mode, Access mode, trouble open and trouble short mode can be reported by the system.

Macro control functions

User macros, alarm macros, system macros and time control macros can be executed by MEGAsys system software

GENERAL

Integraded security management system is a single user-friendly Man-Machine-Interface (MMI) to fully monitor and control the overall security system installed in the centre.It provides all types of controls, logging, alarm handling, audit trall, Graphical display, switching camera for image veriflcation and recording. It should have the capability to support up to 4 SVGA monitors display different graphical maps and video streaming for Digital Video Recordings. It Should be able to support split screen digital video display grid from 2x2, 3x3 to 10x10, different combinlation IP video, meaning 100 cameras simultansously form Digital Video Recorders or Net-camera, Video Server. The split can be programmed up to 100 steps for each grids of video, sequential displaying of different IP video stream.

The user-friendly Graphical User Interface it has a built-in toll allowing you to create your own preferred Icon to respresent the door, motion detector, cameras, readers, etc, Once the all the maps/floor plan has been estabish, Icon representing different system devices can be inserted and maps can be link to each other using the link icon. Icon color changes or blink according to real-time status of the device.Unlimited type of device icon representing cameras, panic button, readers, intercom, access controlled door, etc can be inserted on the map/floor plan allow user to have an overview list of all the security devices status in the floor area.Panic alarm, intrusion alarm or technical alarm for Digital Video Recorder shall trigger audible alarm and pop-up plan and live video on the Integrated Security Management System.

Dual redundancy hot-standby server is an optional support for database backup and automatic fail-over the active server is down.All servers and client workstations are connected via Ethernat IEEE802.3, TCP/IP network, allowing future expansion of additional workstation in varrious control points.

OVER 640 VIDEO INPUTS CAN BE CONFIGURED (in blocks of 64 inputs)

- Video from; cameras, DVR/NVRs, frame stores, and loop back from motion detectors and video printers. (even video outputs from other video switching systems can be configured as input sources to the MEGASYS CCTV system)
- Video inputs are allocated a defined reference type (i.e. camera, DVR/NVR, motion detector etc.). Each video input is then allocated a specific LOGICAL number (1-640) relating to its defined type (i.e. CAM 123 or VCR 3)

Note: the actual physical Input connection to the MEGASYS CCTV system relation to the defined referencing of that video source. Cable connection points are dynamic.

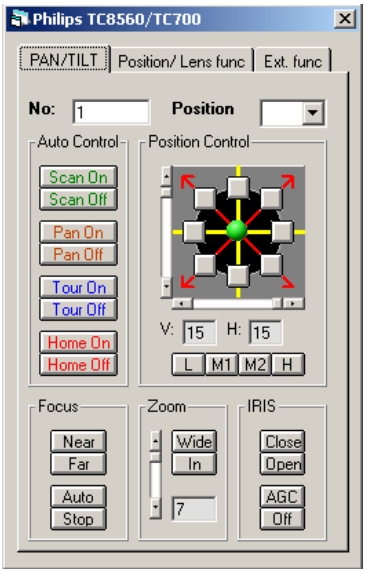
- Video inputs are tagged with a physical input termination address. A video output channel can select video inputs from any camera source (defined at commissioning). This gives the ability to set up a large CCTV system into separate smaller sequencing systems. (overlaps of available video inputs are also possible)

SIXTEEN (16) VIDEO OUTPUT CHANNELS (can be expanded to 160 outputs and up to 10 by paralleling sub-racks)

- Video output to monitors, DVR/NVRs, frame store units, motion detectors and video printers.
  - As mentioned previously, video output channels can only select video sources from specific source groups.

  These source groups are defined at commissioning.
- Video output channels may only be controlled by a CCTV keyboards. Again control allocation to CCTV keyboards is defined at commissioning. The prime use of this prioritization is limit CCTV keyboard access to the monitors and equipment relative to that keyboard
- All video output channels can support scanning. Any of the available scan sequences maybe allocated to a video output channel either at commissioning or during system operation.
- A total of 99 scan sequences, each containing 99 source selection references are available. Each may be created an edited from a CCTV keyboard during normal system operation. All scan sequences are stored on hard disk.
- The current source selection of a video output channel can be locked. Only when the video output channel is unlocked again may a new video input source be selected (regardless of CCTV keyboard access). An example where this may be necessary is where a camera is selected to a motion detector.

CONTROL OF VIDEO INPUT SOURCES



- Control functions may be assigned to every video input source. For a camera this may be pan/tilt/lens control.
- All source control functions are accessible from any or all of the CCTV consoles.
- PTZ control for cameras

  Mouse, Keyboard and Joystick for pan and tilt functions. Momentary push buttons for zoom and focus function. (optional iris open and close)

  DC loop circuits (standard PTZ/Lens control)

  Variable speed, four-wire controlled PTZ sites (also supports camera views [or presets] and remote alarm inputs).
- FREEZE/RELEASE control of freeze frame units

  CLEAR ALARM for motion detectors
- GUI Dynamic PTZ selection provides single mouse key to control PTZ camera and speed control.
- Multiple PTZ Protocols, it support the most common PTZ protocols, Selecting differences protocols form the programming panel without expensive protocol converter boxes, can be mixing difference brand of PTZ inside the system architecture.

CHINESE TEXT INSERTION FOR VIDEO OUTPUT CHANNELS

- Types of labeling (12 simplifier Chinese character)
- Name of output channel (e.g. monitor numbers or DVR/NVR zoning names)
- Currently selected source identification (e.g. camera numbers and descriptions)
- Output channel operating mode (scan selections, editing modes, etc.)
- Keyboard operation feedback information for monitors (prompts and operator messages)
- Real time calendar/clock display)

- **Features for Analogue Video Matrix**
  - Up to 12 Chinese characters of text per line can be displayed.
  - Text area is multiplexed into the currently selected video input source giving a superimposed display (without removing valuable viewing area)
  - A solid background (viewing window) can be selected for live video area if required.
  - Software selectable positioning of text area on screen.
  - All features are programmable at commissioning, requiring no hardware adjustments.

VIDEO SWITCHING TECHNOLOGY

- Video switching modules used in the MEGASYS CCTV system can select any one of 64 video inputs to one video output channel. By cascading video switching modules large numbers of video input sources may be selected.
- All video switching is performed during the vertical interval of the currently selected source. Vertical interval switching requires all video sources to be vertically synchronized in order to operate successfully.
- Where video sources are not synchronized, black pause switching may be utilized. This technique will clamp the video content of the newly selected video source to black for a short period (still allowing the new sync pulses to be passed unaffected). The result allows frame roll to occur during a black screen, before the picture content of the selected video signal is restored. The visual effect simulates that of synchronized video source switching, without the cost. (This is a definite advantage when a CCTV system is switching playback from DVR/NVR‘s)
- All switched video signals are fully DC restored (this helps maintain picture contrast and eliminates introduced 50Hz ripple on incoming video signal, thus improving picture quality).

CCTV Keyboards

Up to eight individually identified CCTV keyboards may be configured onto one MEGASYS ET-6416 system. Simultaneous system control is available from all eight individually identified CCTV keyboards.

- Selectable access prioritization between CCTV keyboards to provide multiple access by keyboards to monitors.
- Time-out of keyboard access to monitors may also be implemented through prolonged inactivity of an individual CCTV keyboard.

- Video output channels may be allocated CCTV keyboard access parameters to limit control of that video output to particular CCTV keyboard. This Logical structuring of a system prevents one CCTV keyboard from accidentally accessing another keyboard monitors (can be implemented for other video output equipment as well)
- through the use of source grouping and video output access parameters, a large CCTV system can be divided into several smaller systems each being controlled by CCTV keyboards.
- CCTV keyboards communicate via a Duplex RS-422 serial channel to the MEGAsys system control computer. Normal operation is at 9600 baud.
- The identity code and baud rate for each CCTV keyboard is selected by an internal DIP switch. This is normally set at commissioning.
- The CCTV keyboard is housed in a low profile, wedge shaped metal case with:
  - a sealed Lexan keypad area (giving both tactile and audible key press feedback).
  - Micro-switch activating pan/tilt joystick, for continuous reliability.
  - zoom/focus lens control button on panel.
  - camera/monitor number selection pad.
  - special function, device and control keypad area is also on the panel
- Support logical camera and physical camera switching.

DVR/NVR System

DVR Main Features

The MEGAsys DVR/NVR is a kind of Digital Video Recorder – DVR/NVR, using ***embedded Linux/Windows OS*** operating system, digital compression/ decompression and some other concerned technology. It provides the function of display screen split, video switches and records, which can not only provide more time for recording, but also solve the problem of signal attenuation of videotape. Besides its capability to replace tradition video recorders, it's also excellent in high integration and multifunction, which can be developed into new applications combining Internet, security devices and large storage equipments.

- ✧ 1, 4, 8, 16 port DVR/NVR system, providing 25/30FPS real-time video surveillance.
- ✧ Embedded Linux system (Optional), providing stability and performance which DVR/NVR system needs. It also can automatic mount the Hard Disk for data storage.
- ✧ Each lens is for a single chip, avoid to interference between lenses, with a best efficacy of the whole system clarity. High compress proportion pictures.
- ✧ Recording, playback, surveillance, and retrieve files simultaneously through (IE) remote browser (Windows Server 2008/ Win7 compatible and don't need to install any additional software.) or MEGAsys GUI Security Management System.
- ✧ Including the features of PC or Non-PC based DVR/NVR, easy to operate.
  Pan/ Tilt/ Zoom control
- ✧ Providing the integration and technical consultation on digital surveillance system.
- ✧ Combining the access control system to strengthen the management of in-and-out security.
- ✧ Being able to integrate separated DVR/NVR hosts, the central surveillance system can provide concentrated multi-site management.

- ✧ Integrating watchdog for monitoring the DVR/NVR system's activity continuously, and restart the system if any faults.
- ✧ Supporting additional installments of data backup equipments such as disk array, NAS, DAT, DLT, CD-RW…etc.
- ✧ Triplex operation: simultaneous play, recording and playback at the same time.
- ✧ .

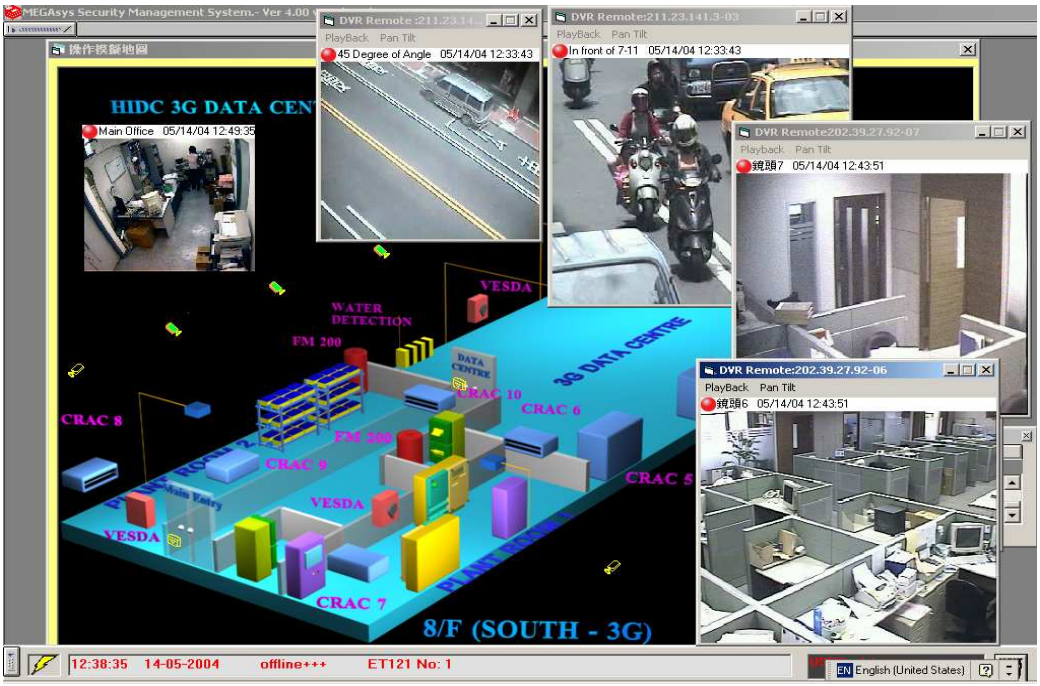
DVR/NVR Central Monitoring and Control

MEGAsys provides a good and complete graphical GUI solution that successfully integrates the multiple DVR/NVR hosts at enterprises, it can totally meet the requirements in digital video surveillance for the separate, unmanned or centralized management, setting and monitoring

On the market, most of the digital video surveillance products mainly meet the basic requirement of independent surveillance for a single user at a single site. They can't provide a successful complete solution design for the situations of separate host, unmanned operation, centralized management, setting and monitoring. MEGAsys Technology provides the solution design combining functions and advantages of the centralized surveillance host and the remote digital video surveillance host to meet the specific requirement. Motion Detection on all video channels with 25/fs recording speed. All selectable motion areas can be set and unset by MEGAsys IMS remotely.

Main Features

- Linux Embedded OS, providing the stability and efficacy of the DVR/NVR Central Monitoring System
- Self-motivated software development, extensible system design and tailored project planning and modeling to satisfy your desire
- It is compatible with Windows XP/Win2008R2/Win7
- Through the IE Browser, multiple users can control the integrated DVR/NVR system
- Through the Internet, users can monitor and control the DVR/NVR hosts at different sites
- Integrate multiple DVR/NVR hosts within Enterprise and achieve the final aim of multi-point central control and management



MACRO SEQUENCES

- Concept of a macro sequence
  - A macro is a stored sequence of CCTV keyboard key presses which may be recalled (or replayed as if typed again) to automate a complex system control action.
  - The speed of execution of a macro sequence is incredibly quick. An average macro sequence of say 25 key presses would execute in less than 100msec.
- Types of macro sequences in the MEGAsys ET-6416 CCTV system
  - User macros
  - Alarm macros
  - System macros
  - Time control macros

CONDITIONAL MACROS

- Execution of a Macro may be conditional upon the status of virtually any combination of conditions within the system including:

- Status of any input or combination of inputs.
- Status of any output or combination of outputs
- Video inputs or outputs currently selected
- time/date
- Operator logged on
- Timer status
- Network status (trunk systems)
- Or any other system variable (option)

This extremely powerful feature makes it possible to simply and economically achieve complex automation sequences that would normally be impossible even with the use of a dedicated programmable logic control system.

MARCO ACTIVATION

Macros may be activated both manually and automatically by any of the following conditions:

- CCTV keyboard key press (A1, A2, A3)
- Mimic panel key press
- The status of any alarm input
- Network communications failure
- Time of day
- Date
- Operator log on
- System 'boot'

USER MARCO SEQUENCES

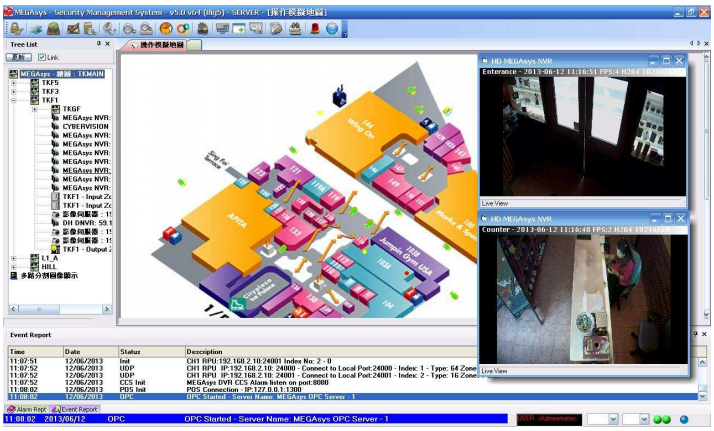
- A user macro sequence is a macro sequence which may be created, stored and executed by a system operator.
- Features
  - All user macros are stored on hard diskette
    - Programmable pause (in increments of 100msec) is available during the execution of a user macro for management of real time event control (e.g. to wait for freeze frame action to occur or even wait for video

switching to occur).

- Application (examples)
  - Auto-camera selection of a specific camera to a DVR/NVR and then activation of the record function.
  - Take a video print of a camera viewing a entrance gate and also opening the entrance gate.
  - Complete floor view in a building (i.e. multiple cameras selected to multiple monitors to display an entire floor area).

ALARM MACRO SEQUENCES

- Alarm macros are specifically defined with alarm inputs. With a change of state of a given alarm input, an associated macro sequence may be executed. A separate macro sequence for alarm active state and alarm clear state are executed.



* Alarm macro sequences may only be defined at commissioning together with the appropriate alarm input definition.

- Alarm macros allow the MEGAsys ET-6416 system to interface with real world events. With suitable system configuration virtually any application of Mimic panel control or fully automated system control can be implemented.

SYSTEM MACRO SEQUENCES

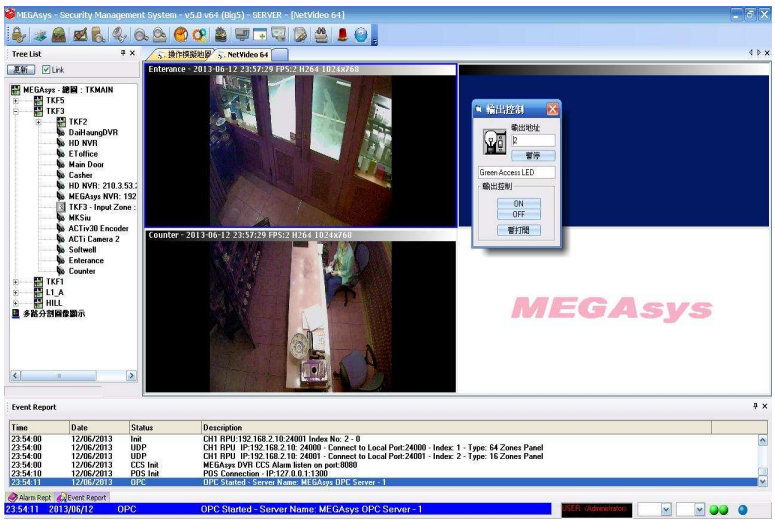
- System macros are general purpose macro sequences. They may be attached to alarm macros and/or chained together to form macro sequences of any length.
- Total of 999 system macro sequences are available. Each sequence may hold up to 50 preset stop. Therefore 50,000 macro commands may be stored for automatic operation.
- System macros may only be defined at commissioning.
- System macros represent a powerful internal high level language that allows the commissioning engineer to create virtually any operational feature that can be imagined. This may sound far fetched however, with the use of conditional decision making macros and time control events, a MEGAsys ET-6416 CCTV Management system may take on an intelligence of it‘s own.
- A choice of system macros may be executed automatically at start up of the MEGAsys ET-6416 CCTV Management system software. Therefore, any sequence of system control actions may be executed prior to the system being made ready for normal CCTV keyboard operation. This is called the BOOT macro.

ALARM INPUT CIRCUITS

- Each alarm input unit can manage sixteen separate alarm input circuits.
  - Alarm inputs are level detecting
  - A total of 2048 alarm inputs may be configured on a MEGAsys ET-6416 CCTV system.
- Alarm active and non-active changes of state may activate preset ALARM MACROS for immediate execution.
- Active alarms may be defined to display a warning message on the PC monitor.
- Active alarm inputs can be cleared from the CCTV system PC using the alarm clear command.
- Up to 32 simultaneous active alarms may be managed by the MEGAsys system. All alarms are placed on an ALARM STACK. Each alarm is then presented (one after the other) (programmable delay period) re-executing the applicable alarm macro sequences and displaying (if programmed) on the video output channel text inserts. With sensible commissioning, intelligent multiple alarm management may be obtained. Location dependant alarm stack management can also be supported.
- Applications (examples)
  - paralleled with normal premises security alarm loops for automatic CCTV system operation given an alarm active condition (e.g. to record the intruder on tape).
  - Door switches and/or intercom call buttons on main entrances to select required camera automatically onto main viewing monitor in a security room.

- Zone selection buttons on a mimic panel to select multiple cameras to the viewing monitors with a single key press.
  - Night/ day change-over of scan sequences on a buildings security system.

CONTROL OUTPUTS



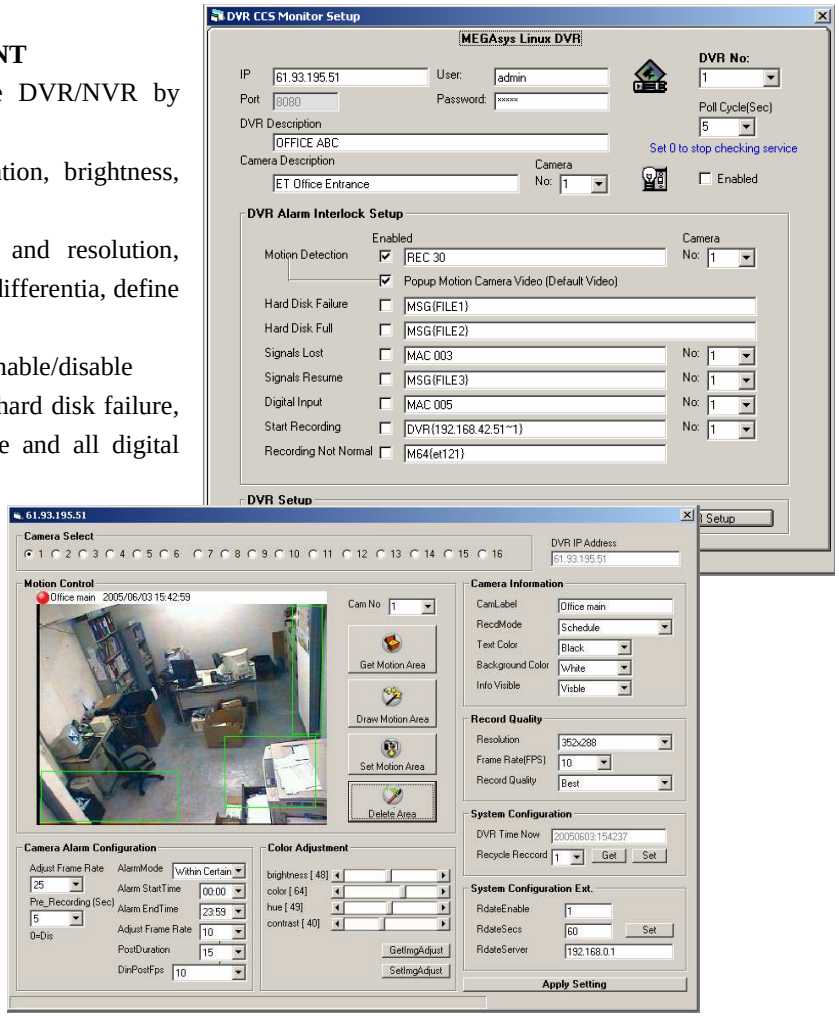
- Optic-isolated solid state output circuits may be configured in a MEGAsys system.
- Up to 2048 individually controlled control outputs can be configured as the system requirements demand. Every remote alarm input/output control unit (ET-8C500L) supports sixteen output circuits.
- Control outputs are defined at commissioning and are controlled by pre-defined macro sequences attached to; alarm inputs, detected camera fail conditions or the general purpose system macro sequences.
- Application (examples)

  For driving indicator lamps on a mimic panel.

- controlling a boom gate or the stop/go traffic signaling at a remote security gate location.
- Hardwired interface to other video switching equipment to operate a required pre-video selection.
- Virtually any application where equipment, external to the MEGAsys equipment, needs to be controlled automatically by the CCTV system.
- Activation of lighting prior to a scan or video tour commencing and deactivation prior to completion.

DVR/NVR REMOTE MEMAGMENT

- Remote setup and configure the DVR/NVR by DVR/NVR
- Remote adjust video hue, saturation, brightness, contrast
- Remote adjust recoding quality and resolution, motion detection sensitivity and differentia, define motion area.
- Recording mode control, motion enable/disable
- Interlock reaction for DVR/NVR hard disk failure, full, camera signals lost, resume and all digital inputs alarm handling
- Alarm interlock MACRO driven



OPEN HIGH LEVEL SYSTEM INTEGRATION

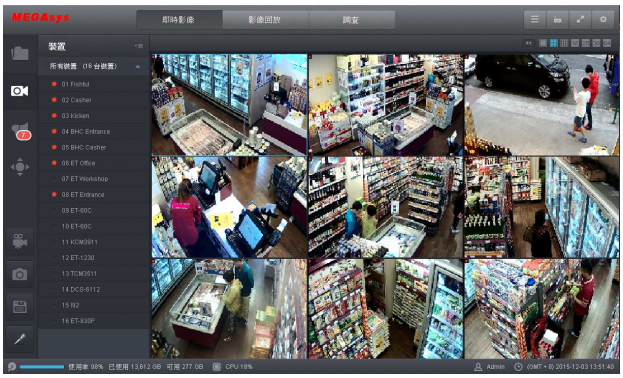
Support OPC, XML and ActiveX integration with many security and non-security systems such as BA, BMS, Lift control system, Alarm system, Access control system, Intercom system, Public address system, Reporting system.

SYSTEM CONFIGURATION

- Overall concept

- A digital/analogue matrix structure of the video switching system.
- An integrated process control environment allowing management of alarm input events and control output events together with automated video switching actions.
  - This allows complete software programmable configuration allowing the hardware equipment to be more universal and expandable.
  - All commissioning data is permanently stored both on a 3.5“ diskette and the hard disk.
  - In the unlikely case of a system failure a backup configuration diskette may be used to quickly restore system operation (no need to retype commissioning data)

NVR - INTEGRATION



- Support for multiple sites surveillance
- Manage up to 64 camera with GUI or tree-directory display
- Support 1,4,6,8,9,10,16,25,36,48,64 window layout
- Support Megapixel MPEG4-/H.264/MJPEG format
- Multiple channel live view in full screen mode
- Digital zoom on live view and playback
- Continuous, Schedule, Motion, Alarm Recording
- Support motion detection and Digital I/O event form hardware
- Max30 seconds pre-event recording
- Expandable PTZ commands control
- Search video clips by date, time and event
- Time base search bar
- 4 channel synchronized playback
- Fully MEGAsys GUI operation integration

Digital Video Surveillance Functions

MEGAsys NVR manages up to 64 cameras in a tree-directory panel; user may arrange camera groups into pre-defined window layout, and pop the window layout onto full screen mode with a single click or a user-defined hot key. With dual monitor support, user may display two functions among preview, playback or GUI manager to have full visibility from different aspects of the surveillance system. When an event occurs, event handler alerts security manager by switching the channel to the hot-spot window, playing audio file and flashing on the border of the window, security manager then need to acknowledge the event by clicking on the button in the event list window. User may deploy recording plan with continuous, schedule, alarm and motion recording mechanism; the recorded video clips can then be searched with channel, date, time, event or browse with a time-based search bar; after certain video clip being located, video clips from multiple channels can be organized together and played synchronously. User may operate video clips with play, pause, stop, reverse play, fast forward, fast rewind and frame-by-frame actions with functions to add bookmark, create snapshot or export video to an AVI file.

Expandable PTZ commands

MEGAsys NVR supports various PTZ protocols, including Evertech Pelco-P, Pelco-D, Lilin, Dynacolor, TOA, Kampro, EyeView, VideoTech, Sony VISCA, Panasonic, GE Kalatel, etc.
User may add new PTZ protocols by themselves or download the PTZ protocols from web site.

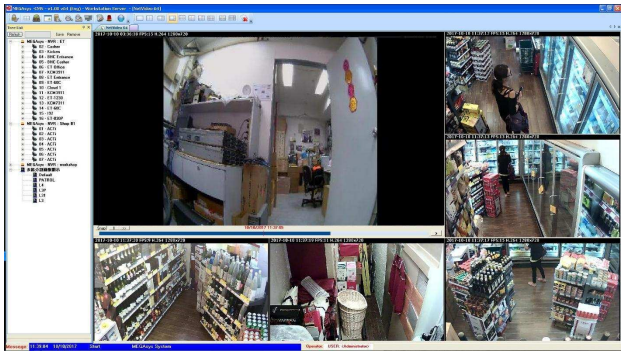
Hardware motion detection and digital I/O event handling

Hardware motion detection is supported and user may set 3 individual regions of interest and sensitivity. An event will be triggered when a motion detection event or digital input event occurs. Maximum 25 seconds pre-event recording time can be set prior to motion detection or digital input event occurs.
Events handling including trigger digital output, request speed dome to turn to a present position, play audio file, beep on the PC, send snapshot via E-mail and send snapshot to FTP site.

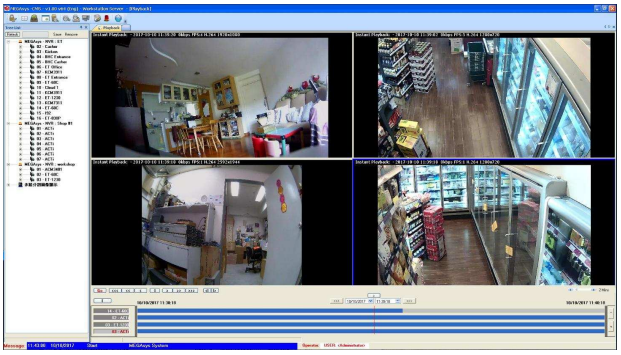
Customizable user interface – create your own NVR Server

MEGAsys NVR server provides several ways for users to customize and create their own application.
User may change logo, title bar, about us dialog box and icon; furthermore, the color scheme, look and feel, layout can be customized. User may even add or remove part the functions from current application.

CMS – CCTV Central Multi Monitor Management



Playback/Instant playback



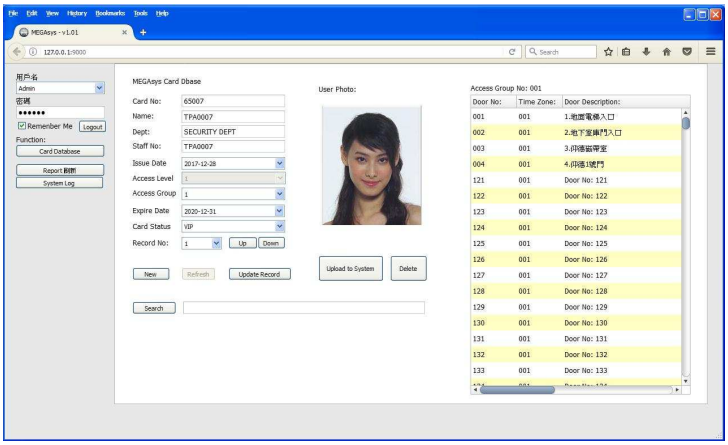
Playback

Key Features

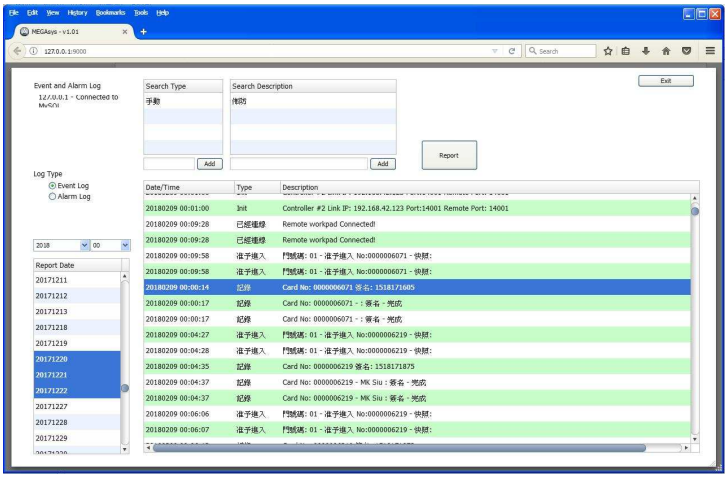
- Manage unlimited number of NVR and DVR servers and IP cameras
- Support H.264, MPEG-4 and MJPEG
- Live view with 1, 4, 9, 10, 16, 25, 32, 36, 49, 64, 91 and 100 layouts
- Live videos from different NVR servers into single layout
- PTZ control, Mouse virtual PTZ
- E-maps with camera icons, mini live views, map links and event status
- Instant video playback on Live video layout, video snap output
- Synchronized playback (1/2/4 CH); audio-in; digital zoom; toggle-stretch mode; snapshot; and disconnect
- Two-way audio, multi-channel audio broadcast
- Unlimited number of remote clients using web browser or installable program
- HTTPs protocol between server and client
- Account/password authentication of each connection
- English and Chinese traditional
- Remember account, password; and auto sign-in
- User password and video partitioning
- Add/delete NVR; sync with NVR; NVR info list; NVR setting
- Add groups and layouts; group list; delete and save
- on/off, save image path setup, export video path setup
- System logs; user logs; date filter; and export logs
- Dual video streaming management (Live/Playback/Recording)

Web Interface – Full web access for Access Control system (Support Firefox/IE/Chrome)

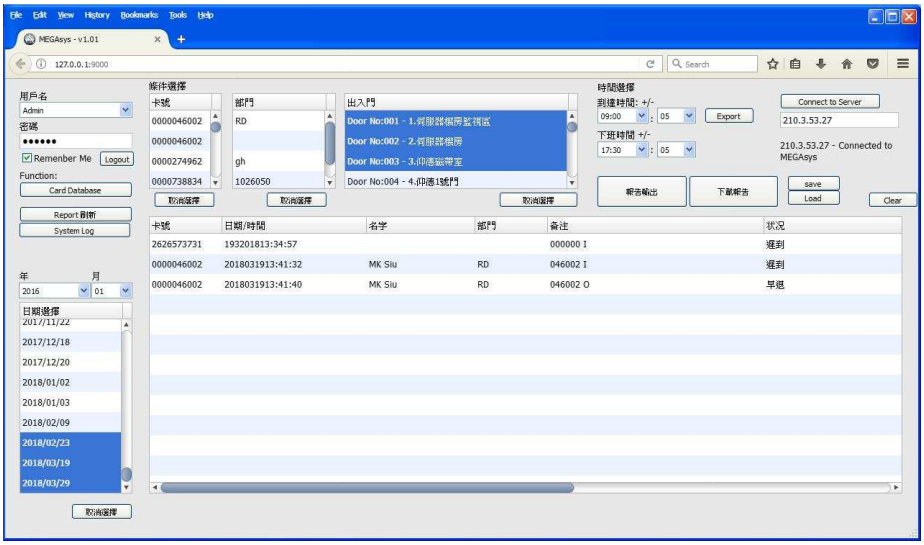
Full access for card database (add/delete/modify/upload to the front-end controller)



System Event log (Search by event Time/Date/Type/Description)



Access Report - Attendance Report (Search by Card No/Door/In Out Recording/Time/Date) download



System Architecture:
Client/Server architecture
Industry standard Windows 7/Server 2008 R2 operating system
Native 32/64 bits application
Scaleable—Single to multi server systems
Real-time database (ISAM/mySQL/MSSQL)
Points:, Digital input/output, Analogue and access point, redundant, hot standby architecture available
Redundant server architecture

Networking:
Uses industry standard TCP/IP networking over Ethernet
Multi licensing of operator stations
RJ45 controllers to Ethernet
Remote connections via LAN or WAN

Operator Interface:
True graphical map user interface
GIF Dynamic device icon object
Available on MS Windows 7/MS Server 2008 R2.
User configurable object based custom displays
Supports display resolutions of 1280 x 1024 and 1024 x 768
Embeds bit maps and Windows Meta files into displays
Launch Windows applications directly from displays
Partial card holder tag name call up with wildcard support
Cut, copy, and paste facilities for easy editing of text
User input devices include keyboard, mouse, trackball (Optional), touch screen (optional)
Native 32 bit application
Support tree directory for all maps details icon access
Diagnostic function for all IP devices, including online/suspend/offline status

Alarm Management:
Color coded alarm summary page with filtering by alarm priorities and area
Alarm segregation through database partitioning
Alarm parameters can be adjusted on-line
Dedicated alarm zone displays most recent highest priority alarm on every page
All alarm and return-to-normal conditions logged in event summary

Individual or page acknowledgment of alarms
Automatic link to optional alarm instruction window or associated display windows
Alarm handling responses logged into event summary
Additional messages can be attached to an alarm
Alarm acknowledge (writes through to controller)
Individual alarm prioritization of different input states for the same point
Alarms and events can trigger reports
Alarm annunciation can use custom sound files (*.wav)
Open OPC Interface for other management systems
Modbus Client/Server support
Dual Lan support for alarm devices communication
Multi IP direct polling structure (8c500L/800L type)
Support Digital Communication standard Ademco* Contact ID Protocol for remote CMS reporting
Support access control integrate with system arm/disarm/override control
Support 2 phone No and 1 operator phone No. for SMS system message for alarm reports.
Watchdog communication monitoring (ET-911)

Events:
System events created for all:
— operator changes — alarm acknowledgment and reset
— point state changes — shunting/security manual controls
— alarms
Event file limited only by disk space available
Export of events to MS Excel format
MS Excel export of off-line events for reporting

Cardholders:
Support for over 10,000 cardholders
18 user definable fields for cardholders
Combo boxes to preprogram cardholder field choices
Card commencement and expiration dates
Up to 128 access levels per cardholder
Automatic trace of cardholder through the facility
Card holder type notification
User photo display for all type of access

Access:
128 access levels
128 card reader zones
16 time zone periods
Complete or modified data download to controllers
ASCII import/ export of all access components to MS Excel
Support for one level of global perimeter anti-pass back
Support for People counting, ACU and lighting control
Palm vein (ET3300) and fascicle biometrics access control

Reports:
Periodic, demandable, or event driven reports
ODBC access for custom reports
Standard reports include:
— Alarm Event — Point Cross Reference
— Alarm Duration — Point Change
— Door History — Card Usage/ Alarm
— Card List — Occupancy/ Attendance
— Group Card Trail — Access Data
— Point Attribute

Security:
Operator security or station security
8 levels of access to system functions:
— Level 1, 2 — Building Engineer
— Level 3, 4 — Building Supervisor
— Level 6, 7, 8 Operator — Normal Operation
Up to 255(optional) control levels for operator initiated actions
Automatic idle time logout (60-600sec)
Prompt for periodic change of passwords
Events logged by operator ID
Individual operator profiles including areas assignment
Effective data partitioning of facility into unlimited different areas
Command assignment to control for different output states
Operator sign on can be restricted

Internationalization:
Support for the operator interface in English and Asian Languages

Algorithms:
Periodic algorithms include:
— Arithmetic calculations for analogue points
— Logic calculations
— Composite hierarchical point alarming

— Report, task or display request activated by access card or status change
— Group point shunting/security control
— Area or group alarm inhibit/shunting/security control

CCTV Control:
Camera and monitor switching on alarm event
For selected switchers, camera selection, and automatic
PAN, TILT, ZOOM, Preset control from operator display or Keyboard (ETKB3000/800/500)
Power Joystick, up/down/left/right/zoom in/zoom out

CCTV Matrix:
Multi-processor circuit board design
Frame Switching
Modular panel design
Full camera titles with time / date
Monitor no, title (Chinese English) and timer clock OSD
Evertech (ET6416, ET3214)*
Pelco(9750/60)* Panasonic(SX550, SX850)*
American Dynamics (AD168)* Burle
Philips (all type of matrix)*
(* Direct Matrix Control)
Ultra/R and D (MAX1000)

DVR/NVR Control
Remote video online view, local recording, snapshot
Video Snapshot and Export for both Live and Playback mode
Remote video frame rate (1, 5, 10, 15, 20, 25)
Remote video Quality control (low, middle, high, best)
Remote back video history and export
Remote video stream download
Remote quad display for different IP video
Multi remote IP video display 2x2, 3x3, 10x10 IP video displays
Multi IP video sequential up to 100 routes x 100 step
Instant video display and preview 30-60 second's previous video
Linux MEGAsys DVR/NVR H.264/Mp4/Jpg (400/200fps)
ACTi2.3/3.0 NVR (400/200,400fps)
iSAP 1.00/2.00 NVR (400/fps400fps)
Aegison DVR MP2 (400fps/400fps)
Cybervision DVR/NVR (400fps/400fps)
Open ActiveX SDK for Remote Monitor/Playback/Setup/Diagnostic
Search video clips by date, time and event
4-Channel Video synchronized playback on MEGAsys GUI
DSS 16-chs DVR (400fps/Live)
Divitech NVR

Net Camera and Video Server
Mpeg, mp4, H263,4 video overlay
AXIS net camera, video server
Pixord net camera, video server
VivoTech net camera, video server
Remote video view/ recording
Axis*, ACTi*, Visiowave*, Pixord*, Vivotech*, IQeye*, Sanyo*
Dlink*, Dynacolor*

Access Controller
Fast. Standalone processing (DDC) 60 pre/trunk , up to 8 trunks line, with optional redundant communication capability (480 doors)
Distributed database processing
Distributed database processing, for up to 10,000 cardholder with DDC10k, DDC11k/11kL, SDC6kL version
Star, bus or combination star and bus reader configuration
Proximity card technologies mode control
Card, keypad or card and keypad access support
Class A, 2-wire supervised input capability
Elevator control up (16 pre system, 64 floor)
Class A, 2-wire supervised input capability
Software-linked inputs and outputs for offline control
Battery backup available for uninterrupted on-line operation
Evertech (DDC6k, 9k, 10k 11k)
Open OPC connection for standard OPC client integrations

Reader Format:
HID Reader (26bit, 35bit Wiegand format)
Fingerscan Biometric Readers

Security Controllers:
Evertech (ET8c500s/500sL, ET8c500/500L, 8c800/800L)*
Evertech panel 64 controller
(* Support LAN direct 8c500sL, 8c500L, 8c800L)

GUI Map and Icons Editor:
Object based display building package with dynamic display objects such as:
— Shapes — 32x32 dots (up to 32 x 12 types)
— Live Video — Overlay (Mjpg, Mp4, H263, H264)
— Alphanumeric — Digital display (Lift floor display)
— Direct Button — Alarm Handling windows
— Fix Area Overlay Video Image
Many standard drawing features including:
— Tool Palette — Snap to grid (mouse/keyboard)
— Color palette — 256 x 128
— Alignment — Group/Ungroup
— 32x12 objects
— Copy and paste support
— Library of commonly used symbols
— Remote engineering support (Telnet/VNC/VPN)
—GIF animation icon link with all system devices support

Documentation:
— Quick start Manual
— Programming Manual
— Operator's Manual
— Installation Manual
— Macro Manual

Photo ID:
BMP or Jpg for image capture
Image or signature compression using BMP and JPEG
Customizable database fields
Configurable card layouts and auto image size
Easy search and navigation facilities

GUI Map Builder:
Graphical engineering tool
Preconfigured typical system databases
Easy creation of point, hardware, stations and printers
Multipoint edit
User defined fields
Standard reports
Import/export facility
Online icon balloon context sensitive help message

Main Computer (Server) Platform:
Processor: 2.3GHz Xeon™ 4 processor or higher
Memory: Minimum of 4GB RAM (1G for 10x10 multi video)
Keyboard: with 12 function keys
Monitor: Up to 4 Super VGA monitor capable of non-interlaced

Operation at 1920 x 1024 pixel resolution (70 Hz or better Vertical refresh rate)
Graphics Card: Super VGA graphics card capable of 1280 x 1024 pixel resolution and 65 K colors (8/16 MB video memory)
CD/DVD ROM Drive: IDE/SCSI
Tape Backup Unit
Communications Adapter: 8 line serial communications adapter
Network Interface Card: Adapter for Ethernet networking Compatible with TCP/IP network protocols
Pointing Device: PS2/USB Mouse
Hard Disk: 80 GB drive or higher
Diskette Drive: 1.44 MB disk drive
Display Resolution: 1280x1024 65K colors
Operating system: Microsoft Windows 2000/2003/XP
Network Protocols: TCP/IP

People Counting

Remote Multi Station People Flow analyzing – TCP/IP (VPN)
Report Generate – Monthly/Daily Graph Chat Report by zone and location basics
Report Format – MS-Excel, Text File, MSSQL, mySQL

Operator Station (Client) Platform:

Processor: 2.0GHz Pentium™ 4 processor or higher
Memory: 1GB minimum (2GB for 10x10 multi video)
Graphics Card: Up to 4 Super VGA graphics card capable of 1280 x 1024 pixel resolution and 65 K colors (8/16 MB video memory)
Hard Disk Size: 800 MB
Monitor: Super VGA monitor capable of non-interlaced operation at 1024 x 768 pixel resolution (70 Hz or better vertical refresh rate)
Keyboard: 12 function keys
Pointing Device: PS2/USB Mouse
Network Interface Card: Adapter for Ethernet networking compatible with TCP/IP network protocols
Display Resolution: 1280 x 1024 65K colors
Operating systems: Windows 2000/2003/XP
Network Protocol: TCP/IP

Open Platform SDK

Open ActiveX framework for Client/Server Integrations
Open XML for Client/Server Integrations Interface
Standard OPC Client/Server platform Integration

Open Platform Support:

- DI: 2048 points (Alarm/Secure/Ack/Fault/On/Off/Patrol)
- DO: 2048: points (On/Off)
- DVR/NVR: 512 Points (Status/Motion Alarm)
- OPC: 2048 Points (0/1 Macro Vector Value)
- Door: 1024 Points (Door Open/Close/Fail Open/Alarm)
- Alarm Log (All System Alarm Message)
- Event Log (All System Events Message)
- Camera: 1024 Point (Matrix Switching/PTZ Ctrl/Lost)

Database

ISAM
MSSQL 2008 Express
mySQL 5.0 support

Remote CMS

Contact ID support

SMS Message

UP to 8 clients phone No. support
System alarm message
System event message
Alarm group shunting message
System arm/disarm message up to 8 groups zone
IP device status message
Access control alarm message