Synergy™ Security Management System
Video Integration, Command & Control Solution
Command and Control
Synergy™ Security Management System is a simple, but comprehensive surveillance control, integration, and management solution.

As today’s control room environments grow more complex with multi-vendor digital and analogue systems, Synergy offers an innovative, map-based interface, centralised command and control console, and professional management suite with unparalleled flexibility, security and scalability. The result of Synectics’ 25+ years of industry experience and design ethos—to create customiseable hardware-agnostic digital surveillance products that intelligently integrate with third party products—Synergy delivers the industry’s best user interface for surveillance operators and supervisors.

Synergy’s efficient and intuitive user interface streamlines access to commonly used system functions, accelerates operator response to critical events, and presents vital procedural information that operators need most.

In addition, supervisors can conveniently monitor system activity and override operator usage if necessary. Synergy also monitors itself, generating detailed activity reports for managers to review audit trails of reviewed evidence, alarm responses, or configuration changes to evaluate system performance and appropriate employee use (or abuse).

Synergy is successfully deployed across the globe in leading financial institutions, major casinos, high security and critical infrastructure sites, industrial facilities and public spaces making Synectics the system of choice for the world’s most demanding environments.

**SYNERGY FEATURES**

- Comprehensive analogue and digital CCTV control
- Multiple site connectivity and scalability
- Touch-screen, map-based navigation for simplicity of operation
- Third party integration to matrices, PTZs, POS, access control, fire alarms, etc.
- Full system operation audit trail and reports
- Fault management tracking and reporting
- Incident management with integrated video, stills and reports
- Automated and customiseable forms and reporting
- User configured access rights and features
Synergy™ protects your capital investment in CCTV infrastructure by integrating and incorporating your legacy analogue products with the digital technology of today and tomorrow.

**Video Recording Management**

Synectics hardware-agnostic integration software provides enterprise-class playback, alarm processing and telemetry control for leading digital video recorders, including Synectics’ own Recording Management System (RMS). Simultaneous live and recorded digital video can be presented on virtual LCD monitors, large-scale displays and/or conventional monitor walls.

Immediate access to live and recorded video from a selected camera (or group of cameras) from a single user interface greatly accelerates operator alarm processing and subject identification. Synergy-powered operators recognise high-value surveillance events sooner and can therefore respond quicker and more appropriately to critical situations.

Synergy far exceeds standard DVR playback controls to maximise user efficiency, response time, and accountability with:

- Centralised evidence within an incident management and reporting system
- Reduced training and support with ‘touch and go’ ultra-intuitive graphical user interface
- User/group profiles that define access to every system feature and camera
- Centralised technician repair reporting system
- Contact database for automated access to staff, VIP, supplier, and undesirables’ contact info
- Automated, prioritised hot-swap failover recording with intelligent video retrieval
- Automated alarms and video reviews based on events from third party point-of-sale, fire alarm, and access control systems
- User-definable management reports that detail every user activity, alarm response, system modification, incident history, etc.
Simple and Efficient Control
Synergy is flexible, logical, and easy to use. Traditional systems require operators to memorise an extensive list of camera numbers, locations, and monitors for viewing. With Synergy’s intuitive touch-screen interface, camera selection is as simple as pointing to a map of your facility. Additional camera selection methods include a ‘go-to’ camera menu, desktop control using a Qwerty keyboard and Synectics’ own range of joystick and keyboard control devices.

With multiple playback options including standard DVR playback controls and time and date selection features operators can quickly and efficiently navigate to the required footage minimising time spent searching for the desired video. Cameras can be grouped together based on user-defined specifications allowing operators to quickly select multiple cameras with a single action. Visual timespan features offers active search functionality by alarm activity over a specified time period. Alarms events are colour-coded by type for ease of identification and navigation. Users can then point and click for instant access to alarm based video.

Incident capture is initiated through a simple single-click option which sets the system tracking every action the operator takes until the incident is closed. Video is automatically dubbed, and can be consequently stored, amended and accessed as a consecutive piece of footage with no operator intervention. This includes operator credentials, camera criteria, and order of events providing a comprehensive incident package and audit trail.

Synergy makes common operator functions simple and intuitive
Synergy™ Security Management System

Connect

Synergy is much more than an analogue and digital video user interface. It is a powerful surveillance command and control solution that logically connects security events in your monitored area to video.

**Alarm Management and Third Party Integration**

Synergy is designed to gather alarms from independent, third party systems, typically present in large public, commercial and industrial environments, (i.e. access control, fire, building management, point of sale, panic, etc.) and display them on a single, visually-intuitive review screen. By quickly and automatically linking alarm events that users deem important to live and recorded video, operators can react more intelligently and decisively when it matters most.

An extensive alarm monitoring and alert system delivers colour-coded visual (and audio) messages for both internal system failures and external system alarms, presents maps and video for alarm points, and can even display management-defined procedures that operators are to follow in each situation. For on-going investigations and prosecutable events, Synergy’s customisable incident management system will store maps, snapshots, observer notes and dubbed video clips in user-categorised case files for long term storage and retrieval.

Typically, a fire alarm will require surveillance operators to complete several cumbersome steps to find, review and save associated video, document the event, and notify security, emergency and management personnel about the incident. Synergy streamlines the process by automating routine functions, triggering audio alerts, moving PTZs, pulling up designated cameras onto local spot monitors, identifying alarm points on site maps, locking or unlocking doors, electronically informing key contacts. It then tracks all these activities in a database and maintains a secure transaction record and case file for future review.

Synergy integration capabilities extend well beyond fire alarms. Through Synergy, virtually any third party system that makes an API available and transmits alarm data via RS232 or Ethernet can be tied to Synectics video. In addition to the dozens of existing Synergy integrations to leading security products, custom interface drivers can also be cost effectively developed upon request.

*Contact Synectics for specific models, manufacturers, and features supported.*
Dataveillance

Sometimes the indication of threat, fraud, theft or collusion does not come from a single device focused on the subject, but from a combination of small interrelated data points gathered from cameras, alarm or other electronic devices and third party systems. To assist surveillance personnel with the task of sifting through all that data, Synectics has developed Dataveillance, an analytics engine within Synergy that combines video with alarm and transactional data from third party systems. Once this data is pushed to the surveillance network from various integrated systems, Dataveillance is able to provide a common database environment and graphical user interface (GUI) to manipulate and analyze the information through unique algorithms designed to expose deception, theft and cheat scams. Because every security environment is unique, custom work is required to integrate these systems and establish the Boolean logic required for proper analysis. Once thresholds are established and “if/and/or” guidelines created, surveillance departments have a powerful, software tool to tie suspicious events and transactions directly to video.

Analytics

Synergy Video Content Analysis (VCA) is available in conjunction with the Synectics’ i-Synx Centralised Analytics Server. Analytics capabilities for camera tampering, gross scene change, object classification and single tripwire are provided (with i-Synx) as standard, with optional add-on license packs for more sophisticated threat recognition and detection including perimeter breaches, object removal, objects left behind, loitering and people counting.

Synergy systematically monitors surveillance activity against predefined software rules such as tripwire or motion. It automatically detects and alarms on potential security breaches, bringing the incident, location and corresponding camera feeds to the attention of live operators. Security personnel monitoring large or distributed facilities can identify, verify and respond quickly and appropriately.

Through Synergy, operators simply select the analytic rule(s) to be applied, specify the designated video streams to monitor (which can include any cameras on the network), and define specific areas of interest to include or exclude to minimise false alarms.

Users can also configure i-Synx to monitor different activities at different times on different cameras for a truly flexible analytics solution.* For example, a retailer could apply a people counting rule on in-store cameras during the day and then change to a trip wire rule on external cameras at night to detect potential intruders.

* Only available with iSynx1000 license pack. See i-Synx datasheet for further information.
A Full Suite of Management Tools
Beyond control and integration, Synergy provides a full suite of management tools that enable supervisors to track operator and system performance, restrict or prioritise user access, audit events, maintain on-going incident files, track repairs and maintenance issues, and review video based on alarms or events. Synergy offers:

- Incident reports, operator notes, integrated video clips and still shots — centrally stored and retrievable by operator, incident type or user-defined fields.
- Fault management of defective cameras, recorders, etc. with automated reports for technicians and supervisors to monitor entries, updates, and repairs.
- Contacts database for storing suppliers, employees, service personnel, VIPs, suspects, etc. with user defined fields, photographs and built-in messaging functionality.
- Comprehensive database utility that allows users to search and generate custom reports based on virtually any system variable including operator, camera, time, incident type, etc.
- Detailed system logs that are automatically generated and stored in private directories, for technicians and supervisors to trouble shoot and review every system activity.
- User-friendly macros programmed to automate functions such as patrols, recording on motion or alarm, memorising an operator’s PTZ movement, or initiating an incident.
- Asset management, user task manager and more...

Reporting tools that deliver essential, useable data on system activity, operator performance and fault management.
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Ensuring the Right Response
Synergy Workflow provides a user-definable process management feature for the creation of interactive step-by-step decision points that guide the operator through the required responses and procedures to alarm events. Workflow tracks operator responses to specific alarm conditions with multiple if, and, or, decision points and defined procedures to follow for each.

Using Workflow ensures the right responses and processes to alarm events, a critical tool where adherence to strict operating procedures is required.

Sophisticated Reporting and Data Analysis
Synergy Reporting delivers essential data on incidents, alarms, camera activity, fault tracking and operator performance. Reports and graphs can be custom-built specific to the needs of the department, situation or operator ensuring that the data produced is relevant and applicable.

Synergy stores historic user, incident and alarm data and presents it in a variety of custom defined graphs and reports. By combining variables such as incident type, camera and location, facility managers can obtain practical data to improve and optimise security procedures. For example, colour-coded map icons could depict areas of slip and fall occurrences over a designated time period highlighting high-frequency problem areas that require attention.
Uninterrupted System Performance and Data Integrity
Synergy is designed with multiple layers of resiliency and failover that ensures the highest level of protection in the event of hardware or network failure.

Synergy system data can be replicated in real-time onto a secondary enterprise-class server, so all critical information is protected and accessible should the primary server fail. The secondary hot-swap server is continuously monitoring the network, and should it detect a problem with the primary server, system control will automatically failover without any operator intervention.

Hot-swap functionality can also be built into the Synectics’ Recording Management System to protect against recording and video loss. In the event of storage hardware failure, Synergy can automatically redirect recording to a back-up storage device without interruption to system performance or data loss.

In addition to protecting against hardware failure, Synergy allows users to identify high-value camera shots for prioritised hot-swap coverage, ensuring the video that matters most is protected first. Synergy tracks all hot-swap activity and video data location so operators experience seamless video playback regardless of where the data is physically stored on the system.

This multi-layered redundancy design protects key system components and data integrity by removing any single point of colossal failure.

Network Video Protection
As video is increasingly being captured at the edge and transmitted across networks, Synectics’ backfill technology provides uninterrupted local device recording to protect your data in the event of a network failure. IP cameras and encoders equipped with local recording storage media can be configured in Synergy to record constantly or upon network failure.

Upon network restoration, Synergy identifies any missing video on the networked storage servers and then automatically backfills or copies the appropriate video from IP camera or edge encoded storage devices via IP back onto the primary storage servers. Video data is seamlessly and continuously restored.

Backfill is available with Synectics range of IP cameras and encoders.
Integrate analogue, SD and HD cameras into a single command and control environment.

**Seamless IP Camera Integration**

Camera integration is a fundamental component of Synergy. By utilizing dual TFT monitors, Synergy can record, playback, display and present analogue and/or IP video streams into a unified review environment. The system normalises the data and can display multiple, independent streamed cameras simultaneously regardless of the source. To the user it is presented simply as video, making Synergy the ideal solution for transitioning from analogue to IP. These images can be displayed in various resolutions and layouts as requested by each user. PTZ control is naturally routed to the selected IP source, which, again, follows Synectics ethos to enable integration of multiple manufacturers’ command protocols in a single, command and control GUI.

**Recording Management System**

Synergy is supported by a complete Recording Management System comprising enterprise class encoding, recording and storage devices.

RMS is designed with scalability, flexibility and reliability in mind. The modular system supports one to thousands of analogue and/or IP cameras. It is designed to encode, stream and play back real-time, full frame (4CIF) MPEG2 or H.264 (MPEG4-10) motion-picture quality video to any number of operator review clients, and store video images for days, weeks or even months on redundant enterprise servers.

Recording can be centralised across a LAN or distributed over a WAN, and function in a fully digital or hybrid analogue/digitally controlled CCTV environment. RMS is also engineered with a practical IT infrastructure that simplifies user maintenance, with multiple layers of failover to eliminate single points of catastrophic failure encoder and storage servers, delivers live and recorded video with a fully integrated IP display wall processor.