

IndigoVision Control Center

A professional CCTV application with the power to view, record, play back and administer video and audio over IP networks

IndigoVision's Control Center is a highly scalable application which allows local and remote control of any CCTV system, from an entry-level system with a small number of cameras, to a large installation with several hundred cameras.

Live Video



Recorded Video



In conjunction with IndigoVision's compression and transmission technology and our Network Video Recorder (NVR), Control Center provides a complete solution for digital CCTV.



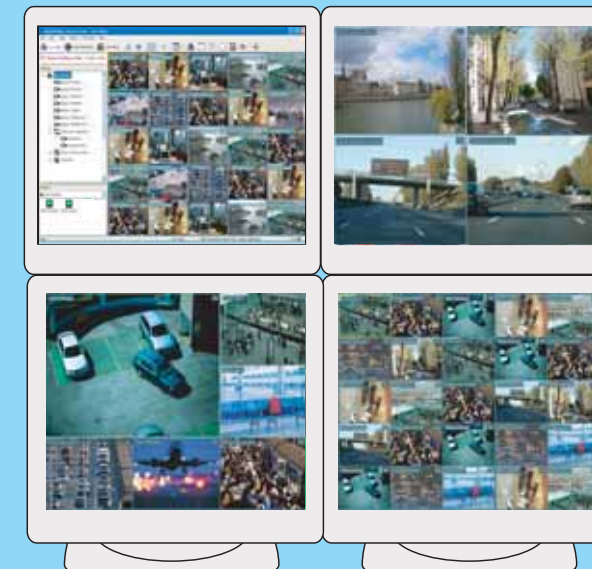
The standard video playback controls and jog/speed shuttle allow for easy navigation of recorded footage. Users can "lock" the speed/jog shuttle to play the recording at speed for a longer period.

IndigoVision

Key Features

- Control Center enables local and simultaneous remote monitoring, viewing and recording across multiple sites, regardless of geographical location.
- Control Center works with other 3rd party analog-based CCTV components, e.g. cameras, monitors, keyboards and PTZ units.
- Control Center can be used to quickly analyze thousands of recordings using motion, time and camera search criteria, saving valuable incident search time.
- Recordings can be played without interrupting current recording.
- Control Center supports video analysis, binary, video loss/gain and network loss/gain alarms. It can also trigger relays when an alarm occurs.
- Recordings from up to 16 cameras can be played back simultaneously.
- Site databases can be created automatically for pre-configured systems.
- Control Center can be used to configure a device remotely, saving on man-hours.
- Up to 64 live video streams can be viewed from one PC, using up to 4 monitors.
- Live and recorded video can be viewed at the same time.
- Control Center's sites facility and associated site maps can be used to group related cameras to enable fast and efficient navigation.
- Control Center allows low level access control per user to every camera.
- Once recorded, video cannot be altered, ensuring the audit trail is intact for evidential purposes.
- The IndigoVision architecture means that cameras, recorders and viewing platforms can be placed in completely separate locations, allowing recordings to be stored in a secure room, or even offsite.
- Several users can simultaneously view, manage and record across the network from any point on that network.

Viewing



Control Center allows all users to display live camera output in up to 25 video panes, all at full frame rate (25x30 fps = 750 fps) and on a full screen. Up to 4 monitors can be used to view additional video panes, with up to 25 in each window. Users can also initiate two-way audio with a camera.

Salvos, Guard Tours and Sequences

Guard tours allow users to display salvos sequentially in PC panes or analog monitors. Each salvo can appear on screen for a specified length of time.

Users can also view a sequence of cameras in succession in a PC window or on an analog monitor. There is no limit to the number of camera sequences that can be defined. Maps can also be used to ease site navigation.

Video Lockout

Video lockout allows an authorized user to prevent all other users from viewing live or recorded video from one or more cameras while an incident is taking place. This means that all video being viewed is stopped immediately, and can only be viewed by the authorized user.

When a "lockout" occurs, the system suspends scheduled recording and immediately starts recording to a designated "lockout" NVR. Users who can no longer view video are informed that a "lockout" has taken place.

Hidden Zones

Hidden zones (also known as privacy zones) are particular areas of a scene that are normally hidden for reasons of privacy. However, authorized personnel may sometimes need to view the whole scene, including these hidden areas.

Control Center allows administrators to set areas in each camera scene which can be viewed only by authorized users, and specify whether they can view these areas in live and/or recorded video.

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Alarm Management

Control Center provides audible and visual notification of alarms. Alarms can be generated by devices such as PIRs attached to inputs on a device, by motion, or by other network/device changes. Each alarm source can have its own sound. Control Center contains the following alarm features:

- **Alarm actions** When an alarm occurs, users can view video from the associated camera, move to a preset position and acknowledge the alarm. Control Center can also stop video and recording that was started by a different alarm, and start receiving/transmitting audio. Relays can be triggered automatically when an alarm occurs, opening a door when a buzzer is pressed, for example.
- **Alarm priority** Alarms from different sources can be prioritized to indicate the order that they should be dealt with.
- **Alarm search** When searching for alarms, users can search by alarm source, user, status, time periods and alarm type.

- **Alarm procedure** Control Center allows users to access textual procedural information on how an alarm from that source should be dealt with. Users can also allocate alarms to themselves to avoid duplication of effort and to provide a permanent record of which user dealt with each alarm.
- **Alarm audit trail** Users can export reports on alarms containing the alarm type and name, date and time, the name of the user who dealt with the alarm and the text entered by this user when acknowledging it.
- **Pre-alarm video** Review the section of video just before an alarm occurred, and automatically protect this footage to ensure that it is not deleted.
- **Protect alarms & relays** Control Center's alarm protection feature allows administrators to specify that alarms from particular alarm sources can only be acknowledged when a second user confirms this. Similarly, relays can be protected, so that a second user must confirm activation.

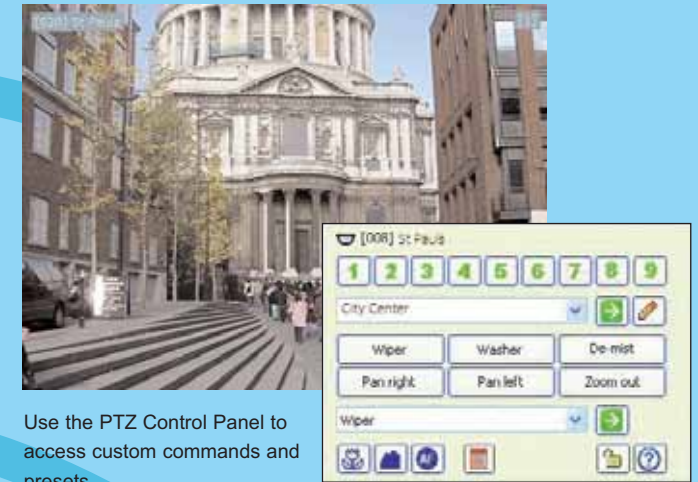


Control Center's alarm list

PTZ Control

Control Center enables users to control PTZ cameras when viewing live video. In addition, administrators can configure custom commands and presets for each PTZ camera. They can also set a user priority for PTZ cameras, and specify that certain users can hold a connection to a PTZ camera, preventing other users from controlling it.

PTZ cameras can be controlled using an external joystick, or directly on the video pane using a mouse. The camera can be easily panned and tilted in different directions and at different speeds by simply moving the mouse, and zoomed by clicking.



Use the PTZ Control Panel to access custom commands and presets

Recording and Playback

Control Center manages recordings for hundreds of cameras recorded on one or more IndigoVision Network Video Recorders (NVRs).

Recorded Video

Control Center allows users to display recorded video from up to 16 cameras at the same time. It also provides a set of powerful tools for reviewing recorded footage and for quickly identifying vital evidence.

The **jog/speed shuttle** includes frame-based single step forwards and backwards, and 16x speed at 240 fps. **Motion search** allows users to search through a period of recorded footage and measure motion as a percentage. Minor movement, such as that caused by animals or trees can be ignored. Typical search performance: 8 hours searched in under 5 minutes.



Control Center's Recorded Video View

Automatic Storage Management

Network Video Recorders can be configured to delete recordings automatically by specifying a length of time that recordings should remain, or a minimum amount of disk space.

Multiple Recorders

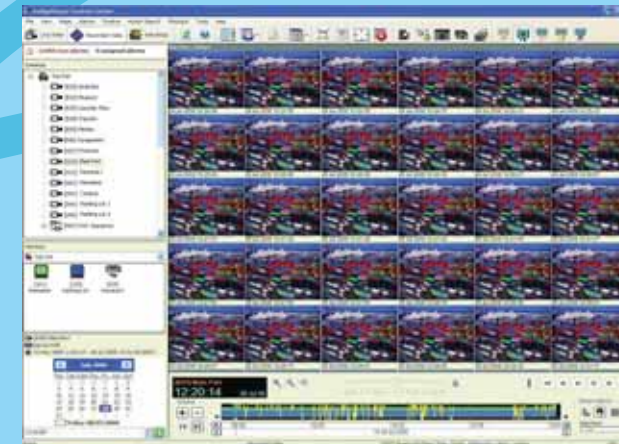
Control Center can be used to manage and administer several NVRs in the same system. The operator need not be concerned about where recordings are stored.

Recording Schedule

The recording schedule is used to specify when particular cameras should be recorded. Recording can occur all the time, or start at set times. It can also start when an alarm occurs, including one triggered by motion.

Multiple Camera Playback

Users can view recorded video from up to 16 cameras simultaneously on one PC. Playback can be simultaneous, and start from the same time for all cameras, or each camera can start playing back from a different time.



Control Center's motion thumbnails

Thumbnails

Thumbnails display still images taken from recorded video within the current range of the timeline. Thumbnails for 8 hours of footage are displayed in under a second.

Thumbnails make searching through large amounts of footage easy and efficient. Time-based thumbnails allow users to identify an event where the exact time is not known, for example, the theft of a car from a parking lot. Motion-based thumbnails are excellent for identifying events where there are many sources of, or varying amounts of motion.



View a map on one monitor and video panes on another

Maps

Control Center allows users to display a map of a site to help locate cameras and alarms. If using additional monitors, users can drag and drop maps onto another monitor. This means that the full map can be viewed on one screen, and the video panes on another.

Watermarking

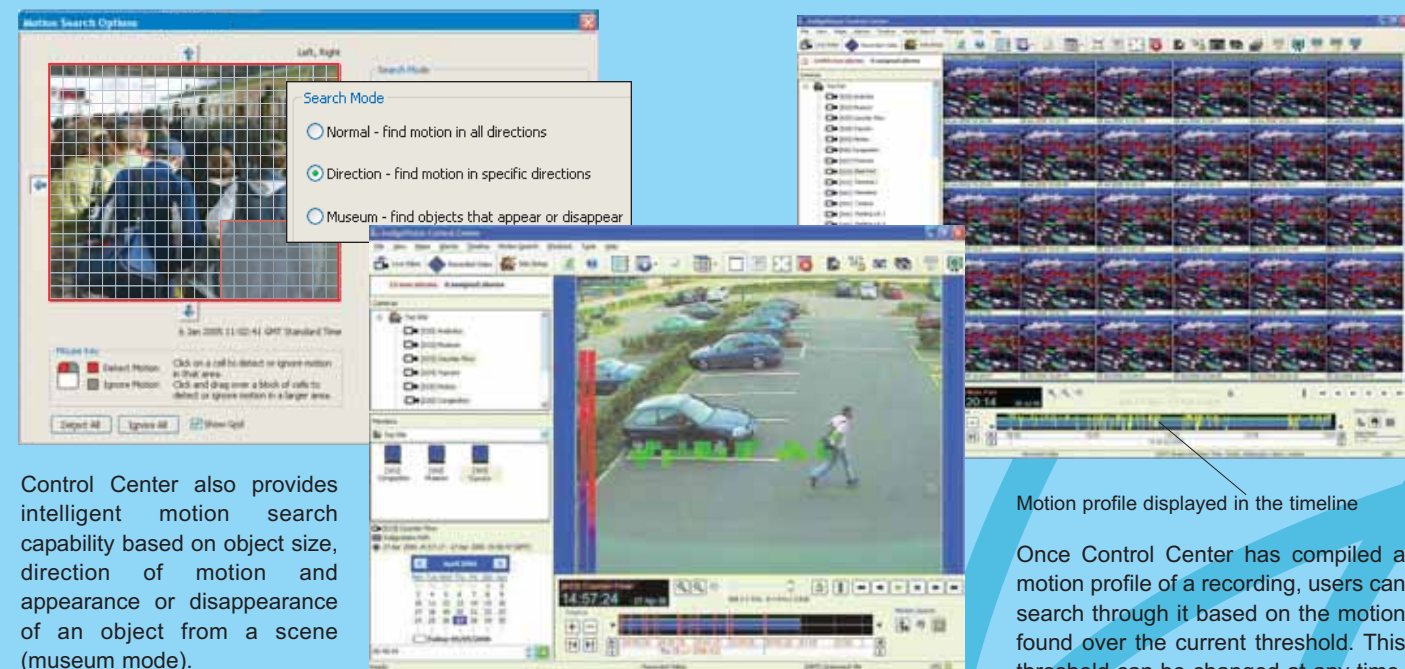
A watermark is added when exporting video footage for evidential purposes. Control Center takes a digital signature of the sequence and watermarks this onto the video. This provides an extremely high level of security.

Control Center

Motion Search

Control Center allows users to search through a recording and identify any significant motion that occurred during it. The user can specify which areas of the scene are to be observed or ignored when searching.

Control Center creates a motion profile, which is displayed in the timeline as a graph. Users can display thumbnails, which display images of significant motion within the time range shown in the timeline.



Control Center also provides intelligent motion search capability based on object size, direction of motion and appearance or disappearance of an object from a scene (museum mode).

Control Center can display bars on the video showing the current values calculated by the activity and analytics filters running on the transmitter, as well as current alarm thresholds. It is possible to display alarm counts on the playback timeline, with totals for each time division (alarms per minute, per hour, etc).

Motion profile displayed in the timeline

Once Control Center has compiled a motion profile of a recording, users can search through it based on the motion found over the current threshold. This threshold can be changed at any time. Users can zoom in for a more detailed view of the profile, and can also skip directly backwards and forwards through the profile.

Virtual Matrix

To enable use with a CCTV keyboard, Control Center automatically numbers monitors, cameras, salvos, sequences and guard tours. Users can view video on monitors or PC panes in the same way as controlling a matrix. This functionality is supported using keyboards, providing an efficient and familiar control method to end users.

Any number of users can use the virtual matrix functionality at the same time, giving a very powerful system. Up to 999 cameras and 999 monitors can be numbered, making Control Center a 999 x 999 virtual matrix.



Control Center's Virtual Matrix showing objects with matrix numbers

Incident Support

Control Center allows users to export video from multiple cameras related to a single incident. The video relating to the incident can then be reviewed within the Incident Player application on a separate workstation.

The Incident Player application enables exported clips from multiple cameras to be reviewed at once and provides all the video review functionality available within Control Center, such as thumbnails, jog shuttle, motion search etc.

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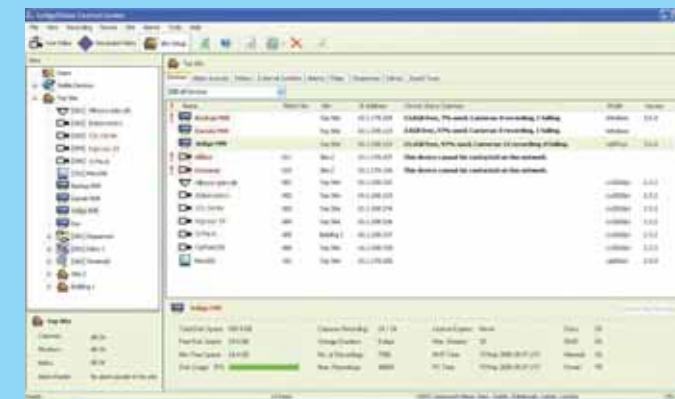
Administration

Site Setup

Control Center allows administrators to manage network devices, sites, recordings and the recording schedule. In Control Center, a site can include cameras from many different geographical locations and networks.

Device Discovery

On startup, Control Center automatically detects all IndigoVision devices that are on the same local network as the PC. If required, administrators can also specify scan addresses to discover devices on other networks.



Control Center's Site Setup

Sites

Sites are set up by administrators, and define which devices are available for operators to view. Administrators can group cameras into sub-sites to ease navigation of a large site. They can also specify a backup site database to be used if the required database is unavailable.

Maps

Maps provide a pictorial representation of site(s). Administrators can create any number of maps for a site, then position cameras and alarm sources on the map.

User Groups

Control Center enables user accounts to be organized into user groups. Access permissions for cameras and other objects can be

applied to user groups so that all users in the group inherit the same permissions, eliminating the need to set up permissions for each user account. User groups can have full administrator, restricted administrator or no administrator rights.

Control Center users can be linked to Windows user accounts. This means that users can have the same login and password for Windows and Control Center.

Multiple Administrator Users

Control Center has two types of administrator user - full and restricted administrators. Users with full administrator permissions have access to all Control Center functionality. Users with restricted administrator rights can carry out the same functions as the primary administrator, except that they cannot create, edit or delete user accounts. There is no limit to the number of administrator users.

Alarm Sources

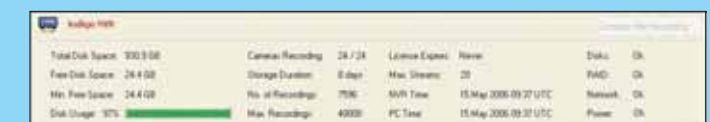
Administrators can specify which sources alarms should be viewed from, and the time period when alarm sources are active. Video recorded at the time of an alarm can also automatically be protected.

Motion Detection

Control Center can be used to configure the motion detection facility available in IndigoVision units. A "region of interest" can be specified, which ignores particular areas if required. Museum mode and motion direction can also be used to tailor the detection criteria.

System Diagnostics

Control Center's diagnostic tools allow you to monitor the state of all devices in your site. This means that you can ensure that each device is functioning as expected.



NVR System Diagnostics

For NVRs, Control Center alerts the user when a disk, redundant power supply or network connection fails; it also displays status information.

Control Center also displays NVR disk usage information for each camera which has recordings on that NVR. Information such as recording start and stop times, total recording time and total recording size and rate is displayed for each camera and recording.