



Intellex® v3.1

DIGITAL VIDEO MANAGEMENT SYSTEM

Intellex® is an intelligent digital video management system that combines multiplexing, alarm/event detection, video, audio, text recording and much more. Intellex will simultaneously display live or playback video, with or without audio and text, host multiple remote users, archive, and perform comprehensive video searching – all while recording multiple video, audio and text streams.

Intellex provides intelligence in search tools and management capabilities beyond many standard DVRs. Define motion based on object size, speed and direction, and IntelleCord® software records only those events you want to see. Or use the Advanced Text capability to record only the video associated with text which contains the transactions of interest. This combined with audio recording makes Intellex a productive investigation tool.

Once images and text are recorded, define the type of recorded events you want to see and Smart Search instantly locates and replays them with digital precision. Video Analysis Tools and Advanced Text are now part of Smart Search, so users can search based on the dynamics of motion as well as the content of a transaction, all while recording live events. With the ability to set cameras to covert, audit the activity log of actions, and simultaneously view multiple angles of a single recorded event, Intellex provides an even more effective security management tool. What's more, the option to setup Intellex in advanced security mode enables both IT managers and security managers to collectively integrate Intellex into existing networks without compromising the existing security protocols.

Intellex is offered in Standard, Deluxe and Premier packages, each containing a pre-configured set of features. This means simplified packaging for easier ordering, maintenance and customer satisfaction.

And because Intellex is networkable and easily integrates with other equipment and software applications, it's a cost effective solution for many new and existing systems.

FEATURES

- NEW** Setup any number of cameras in "covert" mode with viewing rights only to authorized personnel
- NEW** Capture critical information with higher frame rates for certain cameras and assign the remainder of the 120* ips to non-critical cameras
- NEW** Monitor and audit changes made to settings and configurations with the activity log
- NEW** Use Video Analysis Tools to schedule recording and search for video if the movement of an object meets specified size, speed, and direction criteria
- NEW** Specify text criteria in Advanced Text to schedule recording and search for video
- NEW** Move 3rd party domes using controls at Network Client™ or Intellex
- NEW** Archive up to 160 GB of video to external SDLT tapes
- NEW** Supports advanced security and integrates Intellex into existing Windows based network security with Policy Manager
- Simplify steps by searching for a specific ASCII text stream and reviewing video with time synchronized text
- Review events from different angles with multi-camera playback
- Review up to five minutes of pre-alarm data
- Remotely view, manage and review with Network Client Remote Management Software (included)
- Remotely view live video with the browser-based viewer (included)
- Export video, audio and text to CD-RW
- Integrate video into other software applications using the Intellex API
- Choose from three pre-configured packages (Standard, Deluxe and Premier) for easy ordering
- Store more than 800 hours of real-time multiplexed video using Active Content Compression (system record speed of 30 ips NTSC with a 480 GB database)
- Use Smart Search to instantly retrieve motion-based search results

* Available only on 16 channel systems

FEATURES

More Than a Digital Recorder

Intellex digitally records up to 120 ips (NTSC)* 100 ips (PAL)* across multiple cameras directly to the internal hard drive, eliminating conventional VCRs and their associated maintenance and degradation limitations. But Intellex does more than just record. Simultaneously record, playback (video, text and audio), and archive while using Intellex's sophisticated search functions to define and find only those important events that meet your criteria.

Simple, Intuitive User Interfaces

Intellex's user interface is designed to be easy to use, whether you are a beginner or an advanced user. Access all operations using one-click buttons, pull-down menus, adjustable sliders and tabbed screens - even draw target areas on-screen using mouse commands. These powerful screens allow quick setup, operation, and reconfiguration.

Text Recording

Save valuable time and money by combining data mining with your video system. Provide recording and searching of video that corresponds with transaction data. Intellex records RS-232 text data streams from devices like cash registers and ATMs, and displays it next to time synchronized video. Schedule recording or search the database by specifying the exact text or the transaction criteria.

Live and Recorded Audio

With the Premier package, Intellex provides a single channel of live or recorded audio. Intellex takes the guess work out of surveillance by allowing users to hear what is being said, whether reviewing pre-recorded video or watching live video, Intellex captures the audio, time-synchronized with the video.

Instantly Find Motion Based Video

Instantly retrieve recorded video of any event. Intellex uses Smart Search to filter through hours of video to find only the events you want. Isolate video containing motion with the click of a mouse. Or specify the dynamics of motion, by selecting the speed, direction, and size of the moving object. Intellex finds where perimeters were crossed, lights were turned on/off, someone showed up unexpectedly, alarms were tripped, and when people and cars moved in the wrong direction or faster than they were supposed to. This saves hours of time you used to spend manually searching through endless amounts of video to locate critical documentation of security breaches or other events.

Intelligent Recording and Alarm Detection

Use Intellex to record only certain types of events. Define perimeter areas, watch for changes in light levels, set motion detection or even specify time periods. With the Video Analysis Tools, users can detect if people are entering an exit only zone, or if security personnel are chasing suspects. Record and playback up to 5 minutes of pre-alarm video with the option of enabling the 15 minute pre-alarm video index. Each setting can be made on a per camera basis so your system can be customized for optimal security and record duration.

Export Video, Audio and Text to CD

The integrated CD-RW allows users to save video to a standard recordable CD. Users may now provide the authorities, vendors or other non-security personnel with video, audio and text data of incidents that may be viewed on their own PC. The player may be added to the CD as well, so no additional software needs to be purchased. Video is downloaded by selecting cameras and clips or by an alarm-activated download mechanism which automatically downloads approximately 25 minutes of the latest video.

Remote Accessibility

With Browser Client users host and customize their own web site to provide live viewing of Intellex video through a standard browser interface. Multiple clients can access and even control domes remotely through the Browser Client, available at no charge. If more advanced operations are required, Network Client allows users to remotely configure Intellex, view live video, or select video segments by time, date, alarm, or Smart Search. Save, annotate and organize copied video into "incident folders" to aid with investigations. Export video clips to an AVI file to play on any Windows-based PC. Individual images can be enhanced, printed and converted to standard formats. Network Client runs on your PC with Windows® 98/2000 or Windows NT® 4.0.

Upgradable, Expandable Platform

Keep your system up-to-date with software upgrades easily installed from digital media. In addition, each Intellex system can accommodate up to three Extended Storage Modules.

Integrity of Evidence

Intellex's recording format gives each image a unique identification "stamp." Even though the file structure is PC-compatible, the original video images can't be altered or modified, enabling a solid chain of evidence for prosecution.

Selectable Image Quality, Rate and Sensitivity

Optimize the settings of Intellex to fit your specific needs. Choose Super, Extended Record or Normal to balance image quality against record duration. For longer record durations set the record resolution to standard (640 x 240) or reduce to 320 x 240*. Use auto rate mode to set equal frame rates for each camera or adjust the recording frame rate per camera to give greater continuity in critical areas. Intellex automatically displays video in 640 x 480 resolution or 800 x 600 in full screen.

Multi-Camera Playback and Display

Select live and playback displays for any camera in any position in 1x1, 2x2, 3x3 or 4x4 picture formats. In live camera display and playback, choose Full Screen Mode to hide the controls and fill the entire screen, or Menu Mode to display the control interface. Play back video segments at a variety of speeds in forward or reverse sequence - or even single-step images.

Take A Closer Look

Choose any live or recorded picture area and zoom in 2 to 16X for a closer look. Digitally enhance color, contrast, and sharpness. Move around in the enlarged picture for a quick and easy magnified look at all details. This allows for better analysis and identification of important events. Original video remains unaltered.

Easy to Set-Up and Operate

Intellex not only reduces equipment expenses and investigation time, but its simple on-screen menus make training and operation intuitive and easy. Customize access rights for multiple operators with passwords. Other user-friendly features include a removable BNC panel* and camera termination via software for hassle-free camera connections. Intellex is available in English, French, German, or Spanish.

* Available only on 16 channel systems

RECORD DURATION

Record duration, or the quantity of images that can be recorded on the hard drives, is affected by several factors. Digital video with high levels of activity or detail consumes more disk space than video with little activity or detail.

Other factors include:

- Size of the storage database
- Image rate, image quality and sensitivity settings
- Low light levels or noise in the video signal

Intellex helps maximize record duration in several ways. Intellex's video data compression method uses "conditional refresh" to capture image changes, delivering the best possible representation of motion under all conditions. Adjustments can be made to the image sensitivity and quality (affecting the amount of compression), image rate and resolution settings to fit your particular recording requirements.

Use the guidelines below to adjust the record duration:

- Reducing the image rate proportionally increases duration
- Increasing the image quality will decrease the duration
- Adjusting the image sensitivity to improve image quality will decrease the duration

Recording audio with video has the same effect on recording duration as adding 2-3 ips to the recording rate. This will result in a reduction in recording duration of approximately 1.5% when recording at 120 ips and 67% when recording at 1 ips. The effect of text recording on record duration depends on the volume of text data, but is usually insignificant compared to video and audio.

Estimated Recording Durations (NTSC) (assuming Moderate Activity & Normal Resolution, video only)

	SYSTEM OVERALL RECORDING RATE				
	120 IPS	60 IPS	30 IPS	15 IPS	1 IPS
120GB	1.7 days	3.4 days	6.9 days	13.8 days	6.9 months
160GB	2.3 days	4.6 days	9.2 days	18.4 days	9.2 months
320GB	4.6 days	9.2 days	18.4 days	36.8 days	18.4 months
480GB	6.9 days	13.8 days	27.6 days	55.2 days	27.6 months
960GB*	13.8 days	27.6 days	55.2 days	3.7 months	4.5 years
1,760GB**	25.3 days	50.6 days	3.4 months	6.7 months	8.3 years
2,400GB***	34.5 days	2.3 months	4.6 months	9.2 months	11.3 years

* With 1 ESM480

** With 2 ESM640

*** With 3 ESM640

SPECIFICATIONS

Operational

Video Recording System

*Internal Media Format IDE hard drives provide storage capacities of 112 GB, 152 GB, 312 GB, or 472 GB for recording, depending on the hardware configuration

Removable Media Format CD-ROM 5.25-inch half-height IDE connection; CD-RW 5.25-inch half-height IDE connection, one 1.44 MB 3.5 in half-height diskette

Archiving Format† Optional External DAT drive, DDS-4, 5.25-inch half-height, SCSI-3 connection

Record Mode Linear or continuous, selectable
Video Standard NTSC/EIA (RS-170A compliant) or PAL /CCIR

Image Rate Settings (images per second)

NTSC/EIA 120†, 60, 30, 15, 7.5, 2.5 and 1

PAL/CCIR 100†, 50, 25, 12.5, 6.25, 2 and 0.8

Resolution High (640 x 240), recorded
Low (320 x 240), recorded†
640 x 480 live display, 800 x 600 full screen

Quality/Capacity Settings

Extended Record Maximum compression
Normal Medium compression
Super Minimum compression

Video Sensitivity

Normal Medium delta threshold
High Low delta threshold

Gain Control Reduce gain, normal
increase gain low (500 ft Cat 5 run)
increase gain medium (1,000 ft. Cat 5 run)
increase gain high (1,500 ft Cat 5 run)

Alarm Recording

Settings Image rate, quality and sensitivity can be independently set for alarm conditions on each camera

Adjustable Duration Pre-alarm is programmable from five seconds to five minutes; post alarm is programmable from five seconds to five minutes

Schedule Programmable recording times for each day of the week, in thirty minute increments

Front Panel Controls and Indicators

Media Cover CD-ROM, CD-RW, diskette drive

Discrete LED Indicators Power, alarm, record

Pinhole Power and reset

Setup/Operation Menus Accessed locally via software interface, or remotely from Network Client v3.1

On-Screen Displays Camera title, date/time, alarm name, video loss - can be turned on and off in playback mode only

Inputs/Outputs

Video Inputs. 16 looping composite^o, 1 Vp-p, selectable 75 Ω or High-Z, BNC

Alarm Inputs and Outputs 8 or 16, one per camera, activated by contact closure or TTL/CMOS signal
Inputs: programmable polarity
Outputs: active high

Analog Output One composite, 1 Vp-p, 75 Ω

Digital SVGA Monitor 800 x 600 pixel resolution, horizontal 31 to 47 kHz, vertical 50 to 75 Hz

Call/Spot Monitor† Optional Call/Spot monitor provides an additional real-time composite output (1 Vp-p, 75 Ω), included in Premier package

Network Host Interface TCP/IP Ethernet interface allows network access to video by up to five Network Client v3.1 users

Rear Panel Connectors

Camera Inputs 8 or 16, composite, BNC

Camera Looping Outputs 16, composite, BNC, passive loop through†, software programmable termination

Alarm Inputs and Outputs Four grounded 12-pin connectors with screw terminals

Power One, IEC-320-C13

Keyboard PS/2-style

Mouse One, 5-pin DIN connector, PS/2-style with pins 1, 3 and 5 active

Monitor One, SVGA, DB15-S

Video Output One composite BNC, and an additional with Call/Spot monitor option†

TV Output One S-video (S-video/RCA adapter included)†

Printer One, DB25-S, parallel

USB Floppy drive, USB to RS-232 (DB9), CD-RW drive connector

^o8 GB of hard drive capacity reserved for Intellex system software and operation

† Available only on 16 channel systems

^oDV8000 has eight non-looping video inputs

Rear Panel Connectors, continued

- IEEE 1394 (FireWire®)Deluxe package includes interface to Extended Storage Module
- Com2One, RS-232, DB9-P
- ModemRJ-11, 56 kb (Deluxe and Premier only)
- NetworkRJ-45, Cat 3 or Cat 5 twisted-pair Ethernet
- AudioRCA type line or microphone-in, line-out
- SCSI-3†One 68-pin female is included with external DAT drive kit

Electrical

- Power110 VAC, 50/60 Hz, 2.0 A
240 VAC, 50/60 Hz, 1.0 A

CAUTION: Set the voltage switch to the appropriate voltage (110 or 240) before connecting power.

Mechanical

- Dimensions (H x W x D)172 x 432 x 445 mm
(6.75 x 17.0 x 17.5 in)
- Unit Weight14.50 kg (31.90 lbs)
- Shipping Weight16.93 kg (37.25 lbs)

Environmental

- Operating Temperature5° to 40° C (41° to 104° F)
- Humidity5% to 95% RH (non-condensing)
- Storage Conditions-10° to 60° C (14° to 140° F)
- Maximum Operating Tilt15°
- Operating Altitude0 to 3,048 m (0 to 10,000 ft)

Regulatory

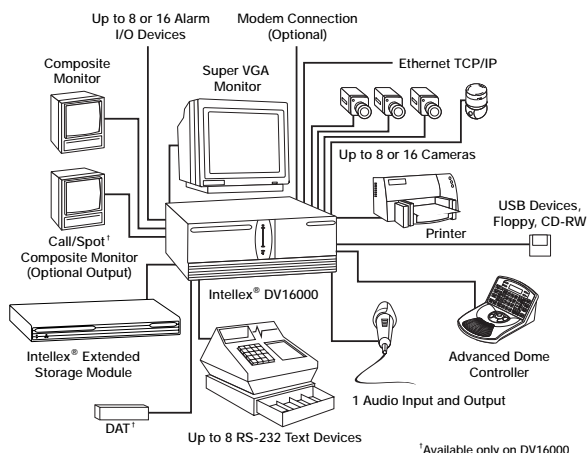
- EmissionsFCC 15b, Class A
EN55022 (1995) Class A
EN61000-3-2 (1995)
EN61000-3-3 (1995)
- ImmunityEN50130-4 (1996)
- SafetyEN60950 Amendments 1, 2, and 3
UL1950, CUL1950, Third Edition

Accessories

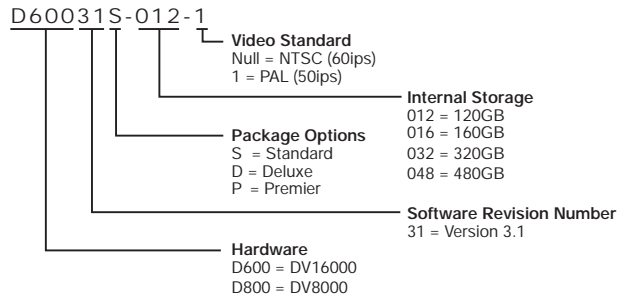
- RDVNC-31Network Client
- ESM480, ESM640480 GB or 640 GB Extended Storage Module (up to three per Intellex unit)
- DVRM-01Intellex Front Rack Mount Kit
- UHRM09Intellex BNC Rack Mount Extension Kit
- RDVSPK01Speakers
- RDVEXP01One to four Text Data Port Expander
- RDVFLP01USB Floppy Drive
- RDVDAT01SCSI External DAT Drive *
- RDVCDRX01External USB CD-RW
- RDVUPGSCSI01SCSI 3 Adapter card
- RDVUSB23201USB TO RS-232 Adapter

* Includes SCSI Interface Card

BASIC SYSTEM DIAGRAM



PRODUCT CODE CONFIGURATION



Intellex Packages	Standard	Deluxe	Premier
Software Features			
Windows® 2000 Operating System	•	•	•
Multi-channel playback	•	•	•
8 or 16 video input and output channels *	•	•	•
Search based on date, time, camera, alarm	•	•	•
Record up to 60 ips (NTSC) 50 ips (PAL) (DV8000)	•	•	•
Record up to 120 ips (NTSC) 100 ips (PAL) (DV16000)	•	•	•
Control Domes from Network Client (through AD switches and the Touch Tracker)†	•	•	•
View Live video at Network Client	•	•	•
Download recorded video to Network Client	•	•	•
Image enhancement tools	•	•	•
Image printing capabilities	•	•	•
Export images to floppy	•	•	•
Day and Night Intellex Cord settings for "always" recording motion alarms	•	•	•
Simultaneously record, playback, view remotely, conduct a search and more	•	•	•
Individual camera sensitivity and quality settings	•	•	•
Smart Search	•	•	•
Individual camera scheduling (record all, alarmed recording, etc.)	•	•	•
Alarm quality and sensitivity settings	•	•	•
Scheduled archiving to external DAT or SDLT	•	•	•
Export support on Intellex with player download capabilities to CD-RW (CD-RW hardware not included in Standard Package)	•	•	•
One license of Network Client Remote Management Software	•	•	•
Support for remote Smart Search	•	•	•
Support for remote Intellex configuration and management	•	•	•
Single channel of live and recorded audio			•
Single channel RS-232 text recording (expandable to 8 with additional hardware)			•
Text based searching and recording			•
Support for Remote text based searching			•
Video Analysis Tools			•
Hardware Features			
120 to 480 GB storage space	•	•	•
Two monitor outputs (one analog, one SVGA)	•	•	•
CD-ROM drive	•	•	•
Network Interface (TCP/IP Ethernet)	•	•	•
8 or 16 alarm inputs and outputs	•	•	•
Internal CD-RW with export support on Intellex with player download capabilities	•	•	•
Interface for external storage (FireWire)		•	•
56k modem (ISDN in Europe, PSTN in rest of world)		•	•
3rd monitor output (analogue call/spot monitor)†		•	•
1 to 1 USB to RS-232 converter for text		•	•

* Outputs available only on 16 channel systems

† Available only on 16 channel systems

* Requires ADTT16E Touch Tracker, AD168, AD1024, or MP48

Note: The use of an uninterruptible power supply (UPS) is highly recommended as standard practice to protect mission-critical computing systems from power fluctuations that may cause loss of data.