DS 1000 Hybrid Digital Video Recorder

INTEGRAL DIGITAL SENTRY® DVMS OPTIMIZED FOR MAINSTREAM APPLICATIONS

Product Features

- 16- or 32- Input Digital Video Management System
- MPEG-4 Video Compression
- Support for Standard IP Video Devices
- Support for IP Cameras and Analog Cameras Simultaneously on a Single System
- Supports Pelco IP Cameras with Sarix™ HD Technology
- Supports the Recording of H.264 Streams from IP Cameras
- Detailed Reporting of System Settings and Configuration Changes
- Quick Review of up to 1 Hour of Video
- Quick Export of Video to DVD by Pushing the Easy Evidence Blue Button
- Easy Playback of Exported Video Without Additional Media Player
- 3-Year Limited Warranty
- Resolution, Quality, and Recording Rate Configurable per Individual Camera
- Up to 2 TB of Hard Drive Storage
- Up to 16 Audio Inputs
- 15 Alarm Inputs and 1 Relay Output
- Support for DS DataPoint Integration

DS 1000's channel count, frame rate, and compression technology provide a perfect solution for today's converging mainstream applications. **DS 1000** offers MPEG-4 compression in 16- and 32-channel configurations and records 5 to 10 images per second (ips). The MPEG-4 compression technology provides superior image quality while maintaining decreased file sizes. **DS 1000** supports up to 16 IP cameras along with analog cameras. It is also HD-enabled, capable of recording and displaying exceptional high-quality images captured by Pelco IP cameras with Sarix™ HD technology. This tight integration between product and technology makes **DS 1000** a robust HD end-to-end solution.

Through a single user interface, users can monitor multiple **DS 1000** systems along with any other Integral Digital Sentry® Digital Video Management System (DVMS). **DS 1000** also supports the complete Integral IT software suite consisting of archive utility and network health monitoring.

DS 1000 also offers the easy evidence blue button. To send video of an incident to law-enforcement authorities, simply push this button to export the video clip to a CD, DVD, or portable USB drive. This is the simplest method of exporting video in the security industry.

DS 1000 supports up to 2 TB of internal storage, which meets the requirements of most applications. Mass storage options are also available for additional storage requirements, providing overall flexibility and scalability.
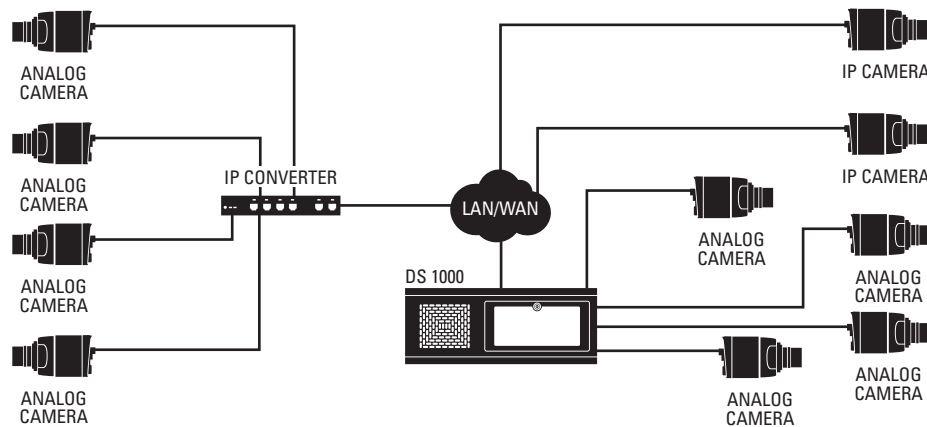
DS 1000's standard feature set and functionality provide a perfect convergence solution for the mainstream market. By simultaneously supporting IP and analog cameras on the same system, **DS 1000** offers a truly flexible hybrid.

APPLICATIONS

DS 1000 is a hybrid solution that allows users to manage and monitor both analog and IP cameras on the same system. This also allows users to leverage analog cameras that are already installed while benefitting from new IP cameras. A 16-channel DS 1000 system can support up to 16 analog channels as well as an additional 16 IP channels, for a total of 32 channels. A 32-channel DS 1000 can support up to 32 analog channels as well as an additional 8 IP channels, for a total of 40 channels.

IMPORTANT NOTE. PLEASE READ.
The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

TECHNICAL SPECIFICATIONS

SYSTEM

Operating System	Windows® XP Professional
User Interface	Digital Sentry or DS ControlPoint
Internal Storage	500 GB, 1 TB, or 2 TB

VIDEO/AUDIO

Video Standards	NTSC/PAL	
Video Encoding	MPEG-4	
Video Decoding	iVEX, MPEG-4, MJPEG, wavelet, H.264	
Video Resolutions	NTSC	PAL
CIF (IP or analog)	352 x 240	352 x 288
4CIF (IP cameras)	704 x 480	704 x 576
HD (IP cameras)	Up to 5 megapixels (NTSC and PAL)	
Analog Camera Inputs		
DS 1000-F16	16	
DS 1000-F32	32	
IP Camera Capacity		
DS 1000-F16	16	
DS 1000-F32	8	
Recording Rate		
DS 1000-F16 (analog)	10 ips per channel	
DS 1000-F32 (analog)	5 ips per channel	
	NTSC	PAL
IP Recording Rate (CIF)	30	25
IP Recording Rate (4CIF)	7.5	6.1
IP Camera Resolution	Up to 5 megapixels (NTSC and PAL)	
Audio Channels	Up to 16	
Codec	MPEG1 Layer 2	
Bits Per Second	32 to 192 Kbps	
Sampling frequency	32 kHz	

AUXILIARY INTERFACES

PTZ Interface	RS-232, RS-422, RS-485
Network	10/100/1000Base-T
Alarm Inputs	15 dry contact
Relay Output	1 Form C

MECHANICAL

Connectors

BNC	Video inputs and outputs
Terminal Blocks	Input triggers, audio inputs, RS-422/RS-485, output relays
USB	6 high-speed USB 2.0 ports
DB15	VGA port
1394	1394 (not used)
RJ-45	10/100/1000 Megabit Ethernet port
Audio Connectors	Miniature phono plug for line in, line out, and microphone in (not used)

Optional I/O Connectors

Audio Levels	
Input	Line-level input
Output	Line-level output
Audio Connectors	Terminal block
Inputs	Up to 16
Trigger Connectors	Terminal block
Inputs	TTL, dry contact to GND
Outputs	Form C relay, contact closure
RS-422/RS-485	Terminal block

POWER

Input Voltage	100 to 240 VAC ±10%, 50/60 Hz
Power Consumption	310 W maximum (280 W sustaining)

PHYSICAL

Dimensions	21" D x 19" W x 7" H (4 RUs) (53.34 x 48.26 x 17.78 cm)
Unit Weight	40 lb (18.1 kg)
Shipping Weight	54 lb (24.5 kg)

ENVIRONMENTAL

Operating Temperature	50° to 95°F (10° to 35°C)
Storage Temperature	−40 to 149°F (−40 to 65°C)
Operating Humidity	20% to 80%, noncondensing
Operating Altitude	−50 to 10,000 ft (−15 to 3,048 m)
Operating Vibration	0.25 G at 3 Hz to 200 Hz at a sweep rate of 0.5 octave/min.

REMOTE PC CLIENT REQUIREMENTS

Processor	
Minimum	Intel® Pentium® 2.4 GHz with Hyper-Threading Technology
Recommended	Intel Core™2 Duo 2.4 GHz
Internal Memory	
Minimum	512 MB
Recommended	2 GB
Operating System	
Minimum	Windows XP Home or Windows Vista®
Recommended	Windows XP Professional SP 2
Video System	
Minimum	128 MB RAM with DirectX® 9.0c
Recommended	Dual-head, 256 MB RAM with DirectX 9.0c

Systems Streaming Between 4 and 32 H.264 Cameras

CPU Speed	Intel Core2 Quad Q9400, 2.66 GHz (4 CPUs)
VGA Card	NVIDIA® GeForce™ 9600 GT (512 MB, minimum)
Memory	4 GB RAM

CERTIFICATIONS

- CE, Class A
- FCC, Class A
- UL Listed

MODEL NUMBERS

Use the following table to create a model number to specify your DS 1000. For example, the model number for a 32-channel system with 500 GB storage is DSF32500. The model number for a 16-channel system with 2000 GB storage is DSF162000.

DSFXXYYYY

Channels ———┘ |
Storage (GB) ———┘

Channels	Storage in GB
16	500
32	1000
	2000

SUPPLIED ACCESSORIES

USB Keyboard
USB Mouse
Power Cord
Keys
Resource Disc
Recovery Disc
Documentation Disc

OPTIONAL ACCESSORIES

KBD300A	KBD300A desktop keyboard with full switching and programming capabilities and joystick control of PTZ functions; requires a KDB300USBKIT or a KBD300USBKIT-X
KBD300USBKIT	Remote keyboard wiring kit (120 VAC) for KBD300A
KBD300USBKIT-X	Remote keyboard wiring kit (230 VAC) for KBD300A

IP CAMERA LICENSES

(Required for Each Connected IP Camera)

DS-SW-CAM	IP camera license for IP camera or analog camera connected to IP encoder
DS-SW-CAM-P	IP camera license if camera or device is purchased from Pelco
DS-SW-CAM-P4	IP camera license for IP quad camera or 4-port converter if purchased from Pelco

OPTIONAL SOFTWARE AND HARDWARE

AUSRV-SW-1L	Archive utility server software license for first DVMS unit (required)
AUS 2-10L	Archive utility server software license for second to tenth DVMS units
AUS-1L	Archive utility server software license for eleventh or greater DVMS units

OPTIONAL EXTERNAL STORAGE

DX8100HDDI-2250	2.25 TB external RAID 5 storage expansion unit
DX8100HDDI-4500	4.5 TB external RAID 5 storage expansion unit
DX8100HDDI-6750	6.75 TB external RAID 5 storage expansion unit
DX8100HDDI-9000	9 TB external RAID 5 storage expansion unit

OPTIONAL INTRAVUE NETWORK HEALTH AND EVENT MONITORING APPLICATION

ITNMS-016	48 analog nodes; 16 IP nodes/host
ITNMS-032	96 analog nodes; 32 IP nodes/host
ITNMS-064	192 analog nodes; 64 IP nodes/host
ITNMS-128	384 analog nodes; 128 IP nodes/host
ITNMS-256	768 analog nodes; 256 IP nodes/host
ITNMS-512	1,536 analog nodes; 512 IP nodes/host
ITNMS-ULTD	Unlimited analog nodes; 1,024 IP nodes/host