Retro View HD-SDI 1-8ch™

High Definition, Real Time, Rugged, Multichannel, Long Duration HD Video Recorder with 1-8 HD-SDI Inputs Plus RS-232 and/or IP In and 1-8 HD-SDI Outputs and/or IP Out. Designed to Capture HD Sensor/Camera Data with Real Time Instrument Data from Multiple Data Sensors via RS-232 or IP. Unit will Overlay Critical Real Time Data Such as Time Code, GPS Info, Temperature, Pressure, Vibration, etc. on Live Video. Management GUI Includes VCR Type Controls and User Selectable Data Capture and Data Fields Locations. Allows Full Flexibility of Look and Feel of Data Appearing on Video Recordings. Highly Useful for Scientific and Archival Data Recording of Underwater or High Altitude Missions Where Video and Supporting Data Needs to be Captured Together in High Definition for Later Analysis and Review. Customers Include Offshore Oil Platforms, ROVs, and Wind Tunnel Operators.

Features
- Records live video on Hard drive, Solid State Drive, or Network attached storage
- Captures snap shots of live video with a single click
- Programmable file name prefixes with real time up to second suffix
- Inserts instrument data, GPS info, Picture in a picture, CG, scrolling text, and sensor data into video feeds as overlays
- Records 1080i, 720p, 480i video with audio (1080p Optional)
- Converts SDI output to IP for remote video monitoring over IP
- Inputs: HD-SDI – 1-8 HD channels or 1-8 SD channels or any combination of HD and SD up to 8 channels, RS-232, IP
- Outputs: HD-SDI – 1-8 HD channels or 1-8 SD channels or any combination of HD and SD channels, IP output is an option.
- SDI to H.264 transcoder for high quality video recording
- Programmable bit rate for H.264 video
- Features daily, weekly, and monthly schedule-based recording, image capture with programmable logos, alerts, and text insertion
- Arbitrary location for graphics
- Choose from static, rotating, or blinking graphics, logos, and text
- Creates crawling messages and emergency alerts with programmable fonts and background colors, in any language
- Select any degree of transparency
- Easy drag and drop placement to position logo, text, or graphics on screen
- Data feeds from RSS or RS-232 in any language, with programmable fonts and background colors (Unicode)
- Able to mask entire screen with a static image in case of video input failure
- 3 RU system in rugged rack mountable frame
- Optional real time clock display on live video stream
- Customization available
- Dual Power Supply Option for Power Supply redundancy

Applications
- Live video recorder for continuously recording video and data from underwater or airborne video camera
- Offshore oil and gas industry
- UAV or USV data capture
- Nuclear Reactor Monitoring
- Flight Data Recording aboard aircraft or wind tunnels

Overview

With the advent of digital cameras and recording, it is now possible to add crucial instrument data on top of live video footage. This is useful when critical video data is collected and other sensor data needs to be correlated with the events unfolding in the video. DVEO recently developed this system for one of the largest oil platform operators in the world. They have purchased over 20 units.

DVEO’s Retro View HD-SDI 1-8ch™ Video Recorder is a highly reliable system that collects and inserts instrument data from numerous sources via RS232 or IP, overlays this on raw video camera input, and records it all in real time. Recording eight channels of raw HD video requires a modest amount of space, since we use H.264, a very high quality video codec that is found on most PC’s.

Once the mission or experiment has run, the video is available to you via data transfer or via built-in Blu-ray.

The Retro View also provides an option to stream transcoded video with overlaid data to remote sites using IP streaming. For automated video recordings and monitoring, we also provide schedule based video recording.

The Retro View is designed to be the key part of any high end underwater or above ground observation and data gathering mission. By utilizing the H.264 codec it offers easy mission review capability with any PC that has downloaded VLC or any other video player.
Sample GUI's

Video Recorder Main GUI

Data Field Settings

Schedule Dialog

Weekly Schedule

Monthly Schedule
**Specifications**

**Graphic/Text Input Formats**
- Text: RSS, Text file, Type into GUI, or copy and paste
- Images: .BMP, .PNG

**SDI or HD-SDI Input/Output**
- Input/Output: HD-SDI, SD-SDI – 10 bit HD and 10 bit SD
- SDI or HD-SDI: SMPTE 259M and 292M
- 270 Mb/s and 1.5Gb/s
- Number of Inputs/Outputs:
  - One to eight HD channels
  - One to eight SD channels
  - Any combination of HD and SD up to 8 channels

**IP Input/Output**
- Input/Output: 1 GigE Ethernet, RJ45
- Option – 2 each 10 GigE Ethernet, RJ45
- IP Protocols: UDP
- Type: Unicast, Multicast

**Instrument Data Input**
- COM Port: RS232 x 2

**Output Bitrates**
- H.264 Output Bitrates: .5 to 8 Mbps
- MPEG-2 Output Bitrates: 1.0 to 20 Mbps

**Recording Media**
- Blu-ray Recorder: 6X 12.7mm Internal BD/DVD/CD Writer
- Hard Drive: SATA 2 TB

**Recording Formats**
- Standard: H.264
- Optional: MPEG-2

**CPU and Operating System**
- CPU: Intel® Dual 16 Core processor
- OS: Windows® 7
- Memory: 32 MB

**Physical & Power**
- Size --
  - 3 RU high: 19 x 5.25 x 25.2 inches (W x H x D) 48.26 x 13.34 x 64 cm (W x H x D)
- Power Supply: 3U 500–600W – Redundant
- 2U Mini Redundant 300–650W
- Temperature Range: Operating: 0°C ~ +50°C on Full Load
  - Storage & Shipping: -20°C ~ +70°C
- Non-operating Humidity: 5% to 95% non-condensing
- Conformities: UL, BSMI, CSA, FCC, CE, RoHS
- Weight: 39 lbs. (17.69 kg)

Note: Pictures shown are typical configurations. Exact product configuration will depend on number of channels and other requirements.

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