

Product Overview - Digital Video

High resolution workstation displays are commonplace in today's high performance military and aerospace applications, and in training environments it is often necessary to record what is seen on these high resolution screens. Application requirements vary - from a need to record a single RGB screen up to projects requiring multiple channels of RGB video, NTSC/PAL camera inputs, audio, and more.

The AP Labs digital video record/replay system was designed to handle this wide range of technical requirement in a cost-effective way. Built on a unique hardware video acquisition card with industry-leading real-time video compression and decompression performance, AP Labs offers a system-level solution that can be recording and replaying video data from the first day of delivery.

KEY FEATURES include:

- real-time system software guarantees the acquisition and recording of critical data
- portable JAVA-based setup, control, and display software for applications needing a ready-to-run turnkey system - OR - software API for control by your system
- real-time video distribution during recording or playback to standard workstations
- multi-stream simultaneous archive and replay capability

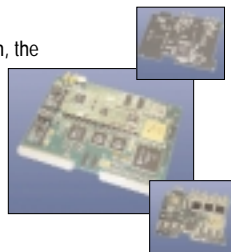
APPLICATIONS include Operator Training and Video Data Recording in:

- C⁴ISR (Command, Control, Communications, Computers, and Intelligence, Surveillance, Reconnaissance)
- Weapons Systems Trainers (WST) - Air Defense Ground Stations, Sonar, Radar Operators
- Flight Simulation Mission Brief/De-brief Systems
- Air-Traffic Control



DVE-201 Digital Video Engine

With pixel acquisition rates up to 220MHz at 24bits resolution, the DVE-201 utilizes the latest commercial-off-the-shelf JPEG compression silicon to provide industry-leading performance for all RGB and NTSC/APL screen formats up to 1600 x 1280, as well as dual audio channels. At the system level, a collection of DVE and other I/O cards controlled by a real-time CPU is referred to as the High Speed Data Recording System (HSDRS).



Data System Server (DS2) Software

The digital video system real-time software is based on DS2 - the AP Labs-developed open-architecture real-time control software which controls the data acquisition process within the system for one or more streams of video, audio, and other system data. DS2 includes well-defined Application Programming Interfaces (APIs) for integration with client programs.



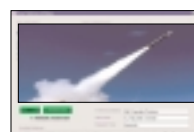
HSDRS Control Center Software (HCC)

JAVA-based application runs on almost any host computer. HCC provides easy-to-use point-and-click menus for setting up and controlling the operation of one or more HSDRS systems.



Digital Video Player (DVP) Software

DVP is an optimized JPEG software decompression video player offering easy to use "VCR-like" controls for the display of live networked video or the replay of archived video from disk or tape. A multi-channel, synchronized version (M-DVP) is also available.



Example Applications

RANGE TRAINING:

The Transportable - Video Audio Data System ("T-VADS") is a Digital Video Server packaged in a compact flight-case so that it can be carried easily from one test vehicle to another. The Test Conductor simply "taps in" to the video and audio feeds of the operators-under-test and views, records, and replays synchronized segments of the training session.



WST AND C⁴ISR:

Weapons Systems Trainers and other simulated or deployed C⁴ISR applications benefit from the HSDRS' ability to record all of the high-resolution screen data and other data sources - all in real-time, all available for live network distribution and/or post-mission playback and review.



FLIGHT SIMULATION:

The Digital Video Archive and Replay (DVARs) Server provides the ideal solution for Mission Brief/Debrief requirements in today's high-performance networked flight simulation/training facilities - real-time distribution and archival of multiple cockpit video displays, Out-The-Window scenery, and cockpit audio.

