1990 Worldwide Developers Conference

Rick Warner

Canon USA, Inc.
Technical Coordinator-Still Video Division

Integrating Images Into Your Applications

Still Video Technology

Still Video Basics

- Still Video cameras record analog video information in the form: Y, (R-Y), (B-Y)
- Requires digitization to be computer compatible
- Standardized video floppy disk and data format for all Still Video (SV) hardware manufacturers

Still Video Camera Features

- Resemble standard 35mm film cameras
- Utilize 2" (analog) video floppy disks and CCD sensor chips to produce images
- Record up to 50 field or 25 frame images on each VF disk

Still Video Advantages

- Allows instant access to the image electronically
- Requires no potentially harmful chemical processing of film or paper
- Doesn't rely on existing 2-D artwork or photos
- Is truly a "desk top" still imaging solution

Resolution Determining Factors

- Imaging chip design
  - Pixel density, chip type, color filtering
- Recording format used
  - HiBand/normal signal, field/frame mode
- Camera optical system
  - SLR, rangefinder, auto or fixed focus lens
- Signal processing circuitry
  - Head composition, VF drive, components

Still Video Image Integration

- Traditionally accomplished by the combination of a SV player and a video digitizing device
- The nature of the SV signal requires special handling sometimes for successful capture
- Capture software creates an image file to export to the application or editing program

Canon FV-540
Video Floppy Disk Drive

- Provides a portable, one-piece digitizing solution for image integration on the Mac from SV, video, and S-video sources
- Uses SCSI port, keeps NuBus slots open
- Creates TIFF, PICT, or PICT2 image files at up to 640x480x24 bit resolution
- NTSC output for viewing images on a TV monitor

The Future of Electronic Still Photography

- Better price/performance value and lower cost from manufacturer's economies of scale
- Increased image quality via better CCD chips, improved signal processing, etc.
- Solid-state (ie. S-RAM IC-card) digital image storage in cameras
- Continued development of image editing, processing, and integration software and hardware

The power to be your best