

SEMINAR OUTLINE

INFORMATION:

www.howstuffworks.com > Electronic Library > How Video Editing Works
www.sony.com > Electronics > Digital Cameras / Camcorders (For Specifications)
www.sony.com > Service & Support > Digital Video & Imaging Support > MiniDV
Camcorders > Model Number > Manuals . Ex. DCR-TRV 40 or 50

DIGITAL CAMCORDERS & OTHER VIDEO SOURCES

Camcorder Major capture elements:

Video Recording to tape
VCR Function and bidirectional A/V Connection
Computer Bidirectional Interface: Fire Wire (I Link, IEEE1394; 400 Mbs) or
USB2 Connection (480 Mbs), and Futures (800 Mbs to 3.2 Gbs w/optical fibers)

Notes: Camcorders have many Video editing functions
Camcorder can be used as a PC Camera w/ A/V connection to Video Card

Resolution: up to 1.5 Megapixels My camera 1/3 of a Megapixel

Media: Hi8, Mini DV, Micro DV
Recording in DV format: 720 X480 Pixels (?)

Prices Start at \$400
Fry's: Volume Market / Does not have many models
Best Buy (Lake Mead} - More Information
Circuit City Most Advanced Models but weak on information

Potential Media Sources::

VCR: Movies, Home Videos, TV with TV Tuner
DVD Player: Movies, Future Home DVDs
Re-photographed Films
TV (and analog) Card (in Computer)
Digital Images from Camcorder Memory Chip
Web video from Camcorder Memory Chip
Digital Camera Images and videos
PC Camera

Next Generation: DVD Camcorders

Hitachi now, Sony soon
Play DVDs directly to DVD player
Random Access to Clips v/s FF and REW w/ VCRs
Clips thumbnails on LCD display, Bluetooth

COMPUTER

Lots of Hard Disk Space (60 - 120 GB) for Capture, Project Processing,
Rendering and Formatting

Fire Wire adapter

DVD Player / Recorder Capability (Watch out for DVD + and -)

> 500 Mhz CPU but rendering can take a lot of time (6X runtime)

512 MB of RAM

Sony VAIO Convenience:

Fire Wire, Memory Stick, 2 USB ports in front

Sort of disconnected editing software

Sony does not recommend TV / Analog card (I use Aver TV)

Consider Best VAIO Model for integrated Video/TV Card

But we need to understand Media Center Computers (Smart Display)

with future wireless wide band capability

Software functions hardwarized for performance

TV, Home Theater, Hi FI integration

Video on Demand

HP Machine at Fry's

Future: HDTV not too far away, HDTV DVDs (27GB 2H or 16H DVD) \$30.00

Available in Japan

SOFTWARE

Many Good Software Packages around

Use Internet to compare features: roxio.com, pinnaclesys.com etc

Dazzle, Adaptec; My DVD, magix.com,

Some quit after Editing, leave burning to PC utility

Takes Space. Install on largest partition or largest disk

Album, Project and temporary buffers are very large

PINNACLE STUDIO VERSION 8 BASICS DEMO

Easy to use, Limited Instructions in Manual, Use Tutorial

3 steps, Capture, Edit, Make Movie

CAPTURE and STORYBOARD DEMO

Capture is easy

- Connect FireWire Cable to Computer and Camcorder
- Turn on camcorder to VTR position
- Set Studio to capture
- On “Connexant Capture” Image click Settings > Capture Device > Click on Source
- Select format: DV and mode of capture date-time or video content > click OK
- Camcorder appears sideways
- use Camcorder controls to locate the start of capture point
- Monitor shows video. Can step single frames right or left to locate exactly
- Software takes over the VCR functions of the Camcorder
 - Clips appear in album area.
- Stop Capture

Note: Video Content Scene Detection works with either analog or digital input
Can be further improved in album during edit

Preview-Quality capture

- While working on Project large amounts of temporary space is used for Album, and the Project
- Can save disk space by using preview clips
- the Quality Capture files are used during final processing.

Move to edit using Storyboard mode

- 3 areas, Album, Movie Player, and Movie Window
- Album Buttons
- Movie Player operation, single step
- Movie Window: Storybook View, Timeline View, List View
- Make first clip a Title
- Drag and drop or insert Clips, Titles, Transitions

PLAY TUTORIAL

- Can select topics
- Use with Windows Media Player while practicing

ADVANCED DEMO: TIMELINE and EFFECTS

- Explain TIMELINE features
- Grab Scene, and use Photoshop Elements
- Slow Motion and Swirl
- Audio limited experience

Note: Most conventional mouse and keyboard functions work with clips.

Select All works well with overall audio volume or color correction.

DVD preparation: Use elements prepared with editing, and use buttons to link them
Have not practiced yet
With other software DVD creation software is needed
Not clear how use of burn utilities works with DVDs

BURNING

Can burn on many media. Good place to store elements of large DVD
DVD + and DVD - issues
Takes time 6 X Runtime for Rendering, Same for formating, then burning
Writing to DV skips 2nd step
Time function of processor speed, hard disk speed, and internal bus speed.
Many things to learn yet

FLICKER & FILMS CONVERSION

Howstuffworks: How Movie projectors Work
Projectors operate at 24 frames per second
At 24 frames per second the eye sees flicker
Solution show each frame twice
With TV (30 frames per second) this is done 60 times per second with interlace
Mismatch of rates when videotaping a movie (12 frames per second)
Less visible flicker if image is darker

FLICKER & LCDS & PLASMA SCREENS

FUTURES

SIG CONSIDERATIONS

Need a faster computer, DVD play & record, Firewire & USB2,
Look into Media Center machines

VIEWING OF VIDEOS