

Digital Video

Part II: Introduction to Editing and Distribution



The University of Utah

Student Computing Labs



Contact Information

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We Will Cover

- History of video editing
 - Analog vs. Digital editing
 - linear editing vs. non-linear editing
- iMovie
 - Importing video
 - Getting video into the computer
 - Editing video to make a movie
 - Adding audio, pictures & text
 - creating transitions
 - Exporting video



We Will NOT Cover

- Final Cut Pro
- Other Digital Video Applications
- Advanced Video Production Tips (covered in Part III)
- Distribution of Videos (covered in Part III)



Class Overview

- Making movies
 - Importing video
 - Editing video
 - Exporting video



Video Editing Process

- Story Board (Master Plan)
 - Create an Editing road map
- Import video to hard disk
 - Edit video
 - Add Video Clip(s) and Graphics
 - Arrange and Create Transitions
 - Add audio Clip(s)
- Publish



What Is Video Editing?

- Linear
 - Physical tape is cut
 - arranged or repositioned
 - Spliced back together
- Non-linear
 - Video saved on a hard disk
 - Frames can be moved anywhere easily
 - Audio can be added over transitions easily



Editing Software

- Used to import, edit, and export video
- Many different applications
- In 1999, Apple released iMovie
- 4 years later...



Editing Applications

- Cost
 - iMovie FREE – Mac Only
 - Windows Movie Maker FREE – PC Only
 - Runs best on XP
 - Adobe Premiere \$549 – Mac & PC
 - Future releases will be PC Only
 - Final Cut Express \$299 – Mac Only
 - Final Cut Pro \$999 – Mac Only
 - Avid \$12,000 - \$53,000 – Mac & PC



iMovie

- iMovie
 - Free – Mac OS Only
 - Credited with reviving interest in video!
 - Credited with reviving interest in COMPUTERS...
 - Children use it
 - Can create most movie effects
 - Used by professional studios



Windows Movie Maker 2

- Windows Movie Maker 2 – PC Only
 - Reviewers like iMovie better
 - Windows XP
 - No video CD or DVD burning options
 - Cannot paste stills, graphics, and other video clips over existing video while keeping the underlying audio unchanged
 - Cannot handle some complex editing tasks
 - “... but hey, this is free! ...”



Other Editing Applications

- Applications are Costly
- Requires extensive training
- Training is usually very Expensive
 - Adobe Premiere – Mac & PC for now
 - Future releases will be PC Only
 - Final Cut Express – Mac OS Only
 - Final Cut Pro – Mac OS Only
 - Avid – Mac & PC



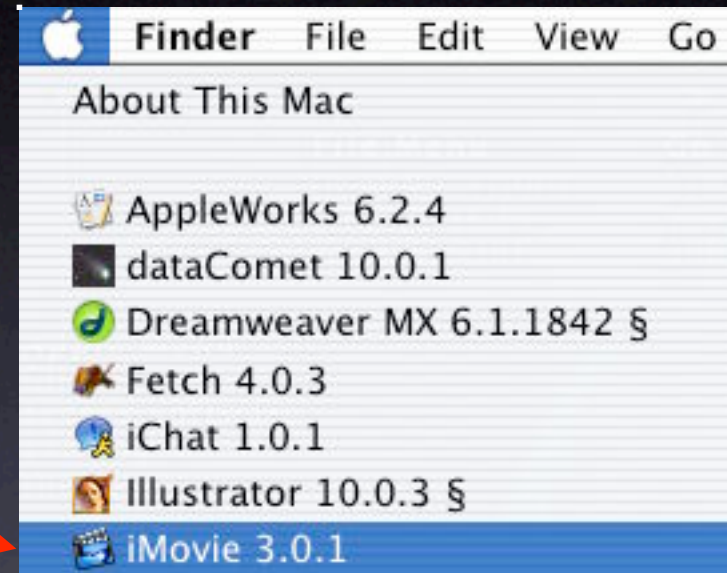
iMovie

- Open iMovie

Dock



- Apple Menu



- Finder

- /Applications/General/Video/iMovie





*An iMovie Demo
by Andre*



iMovie Samples



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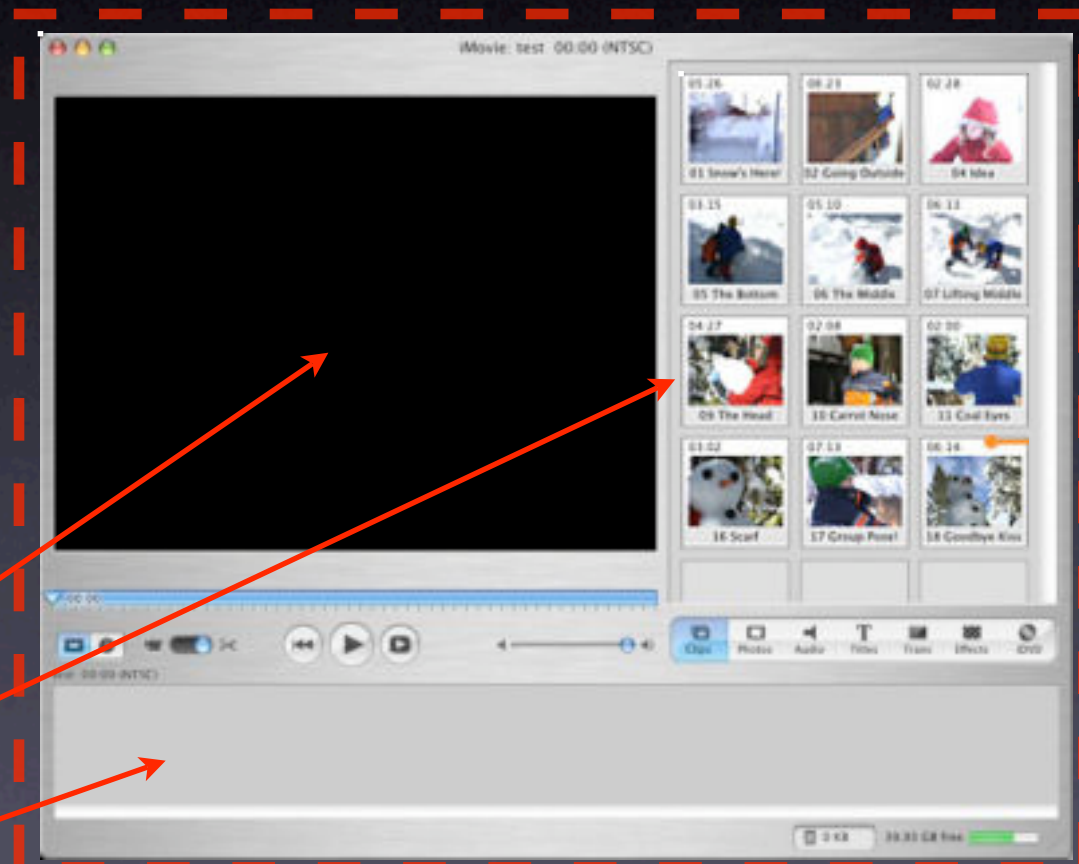


iMovie Interface

- Only one window
 - Thumbnail or Scalled
 - Not full screen

- 3 Main Areas

Monitor
Clips Pane
Viewers

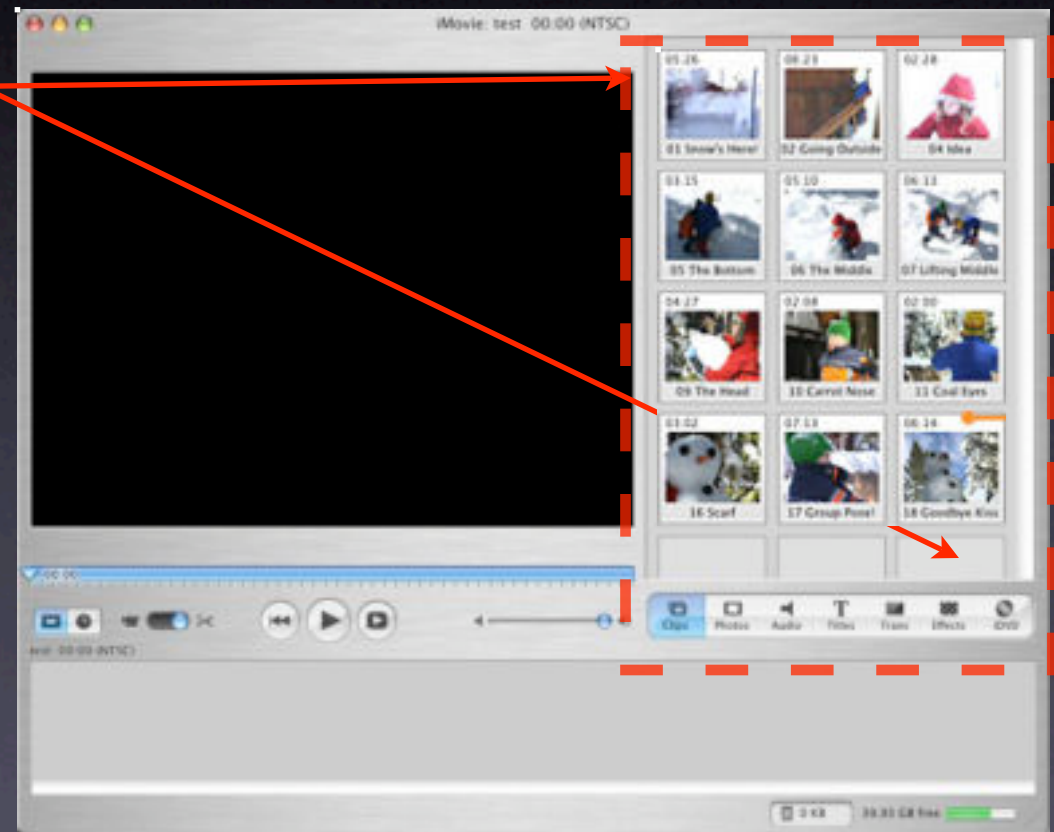


Monitor – Interface



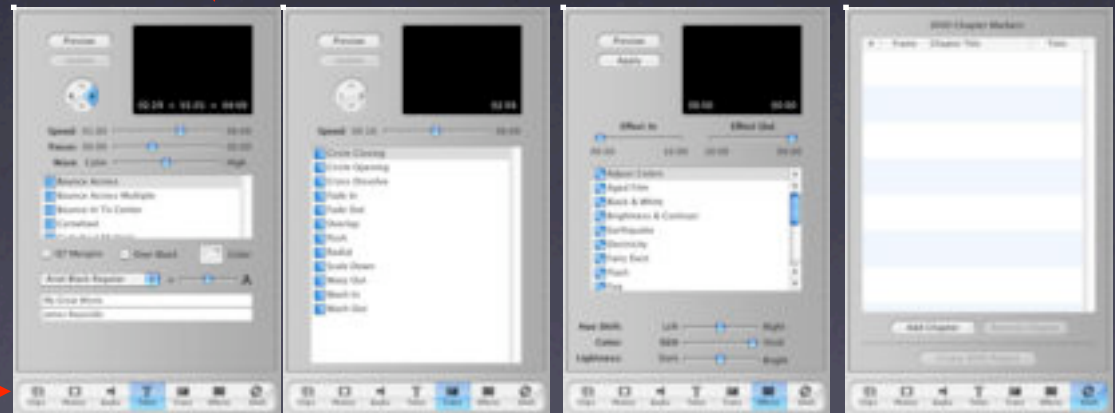
Clips Pane – Interface

- Panes placeholder for
 - Clips
 - Photos
 - Audio
 - Titles
 - Transitions
 - Effects
 - iDVD



Panes – Interface

- Settings & Options at top
- Select Tab at bottom
 - Clips
 - Photos
 - Audio
 - Titles
 - Transitions
 - Effects
 - iDVD



Tabs

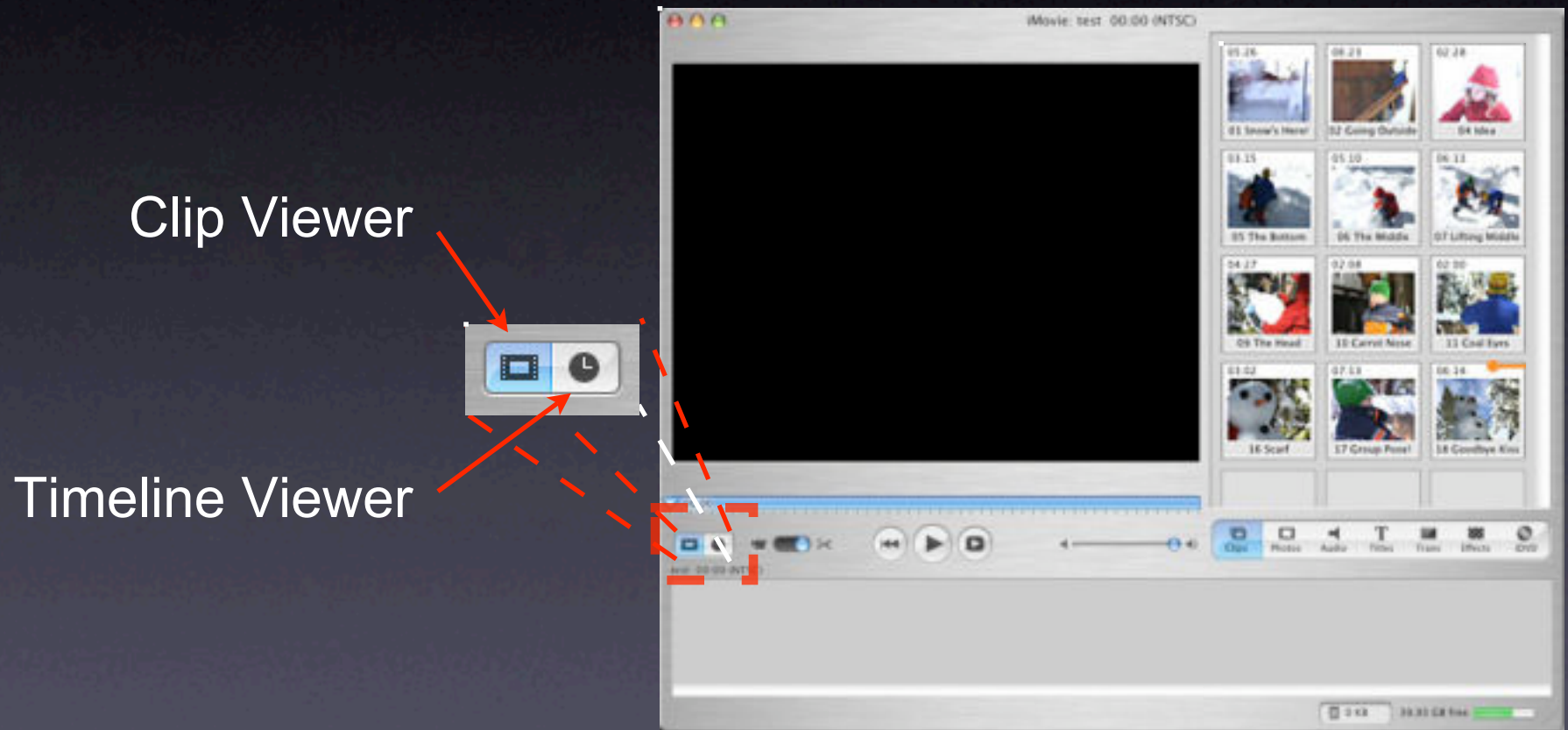


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Viewers – Interface

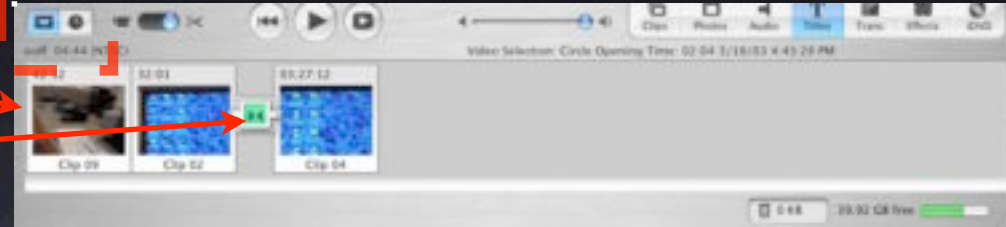


Clip & Timeline Viewers

- Clip viewer

- Clip
- Transition

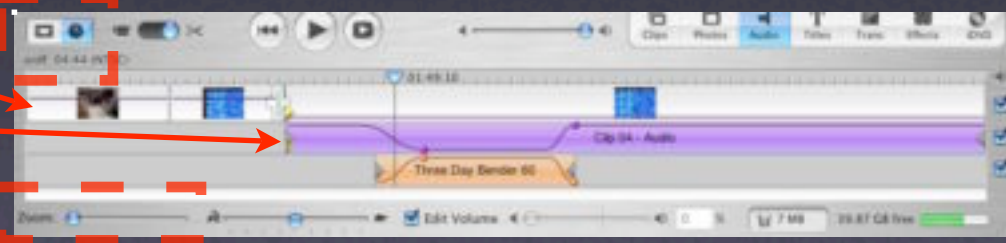
Toggle Button



- Timeline viewer

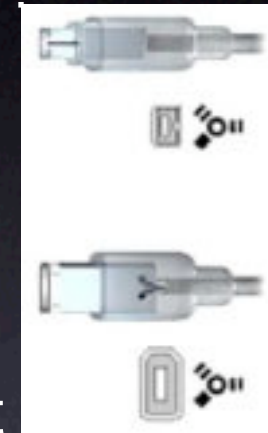
- Video
- Audio
- Zoom

Toggle Button



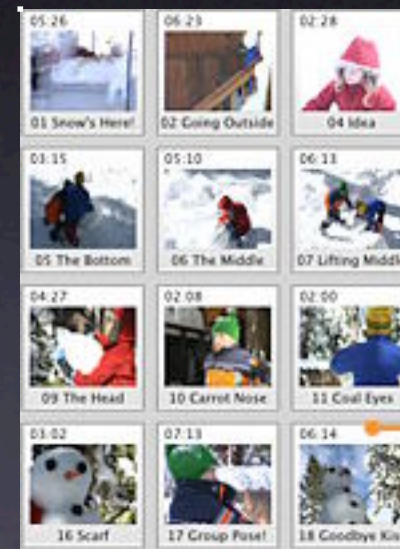
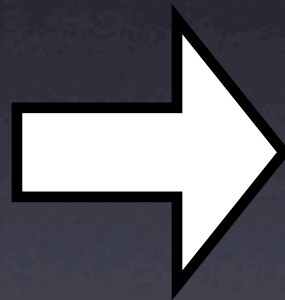
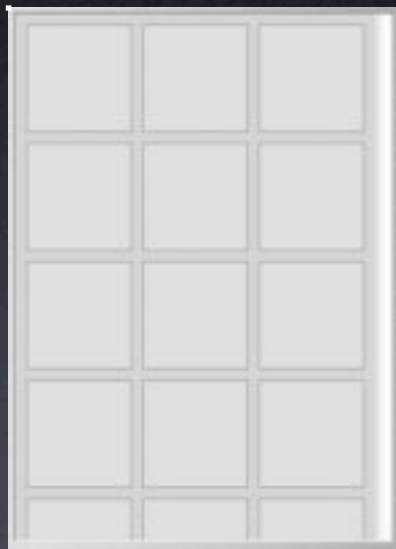
Importing Video

- Plug in Firewire
 - 4 pin: camera, 6 pin: computer
- Get camera ready
 - Put camera into VTR mode
 - Rewind tape 5 seconds before desired spot
- iMovie
 - Put in Camera mode
 - Click play button
 - Click import button
 - Click stop button



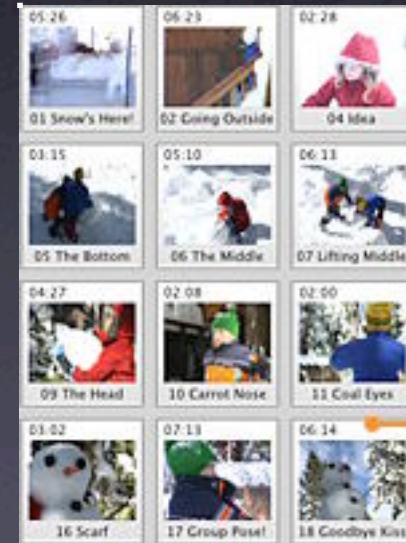
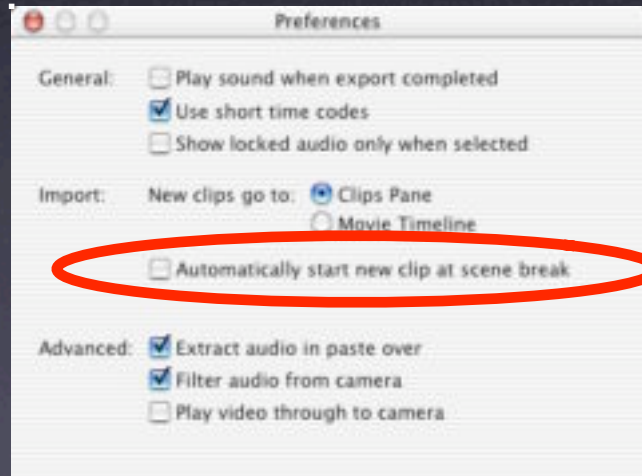
Imported Video Clips

- iMovie will place clips into the Clip Viewer Pane



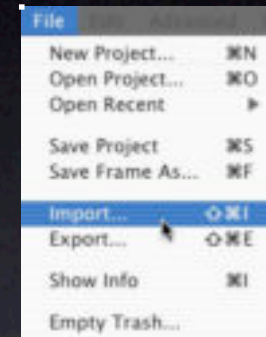
Importing Preferences

- Automatic scene detection
 - Splits clips
 - Where recording paused/stopped
- Can be turned off in Preferences



Importing Preferences

- If you have video files
 - .mov, .dv, .mpg format
 - Resolution will be stretched to fit
 - Correct resolution is 720x480
 - Modify with QuickTime Pro
 - Export using custom size
 - File -> Import



Selecting Clips

- View one clip
 - Click on clip
- View multiple
 - Shift- or command-click on clips
- View all clips in movie
 - Click on background or Edit -> Select None



Viewing Clip(s)

- Press play button



- Drag scrubber



- Use arrow keys



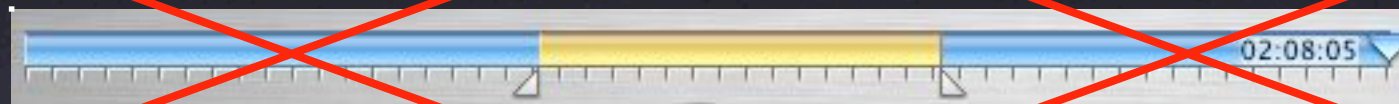
Editing Video Clip(s)

- Trim



- Deletes selected frames

- Crop



- Deletes unselected frames

- Split

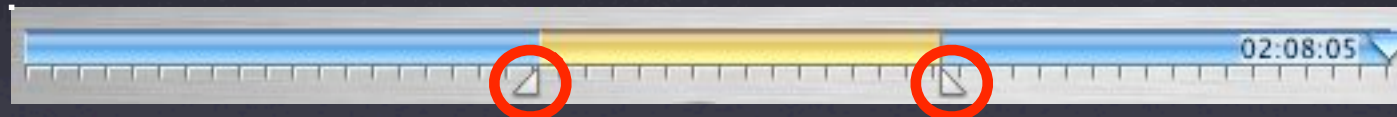


- Turns one clip into two

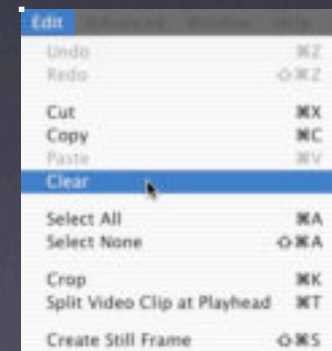


Trimming Clip(s)

- Select a clip
- Click and drag the crop markers
 - Select what you don't want



- Press Delete key or select Edit -> Clear

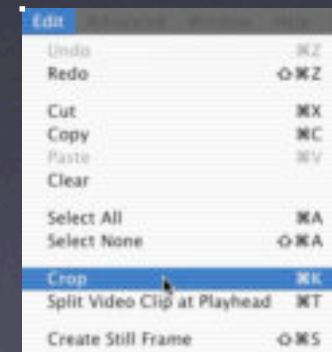


Cropping Clip(s)

- Select a clip
- Click and drag the crop markers
 - Select what you want to keep



- Select Edit -> Crop

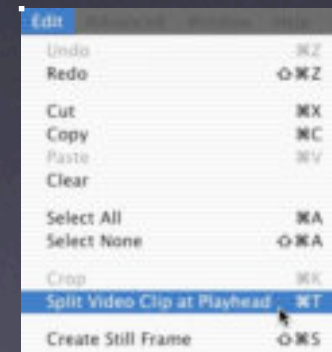


Splitting Clip(s)

- Select a clip
- Drag playhead to desired cut location
 - Use arrow keys if necessary

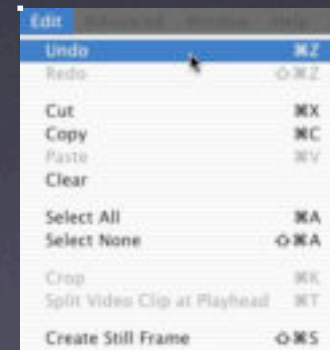


- Select Edit -> Split Clip at Playhead



Undo – Mistake(s)

- Don't be overly worried about mistakes
 - Select Edit -> Undo
- You have 10 Undos unless you
 - Empty the trash
 - Save
- Great for testing new
 - Transitions
 - Features



Adding Photo(s)

- Use iPhoto to import picture files
- Open Photos pane
- Choose an album
- Select a photo
- Drag image to viewer

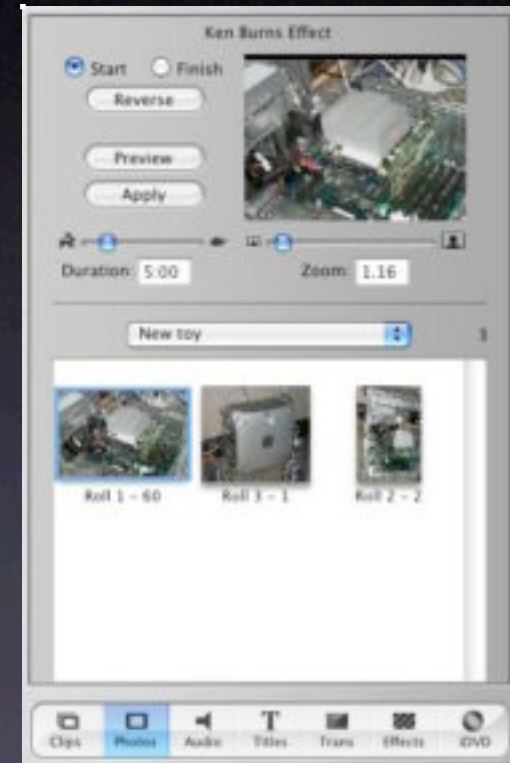


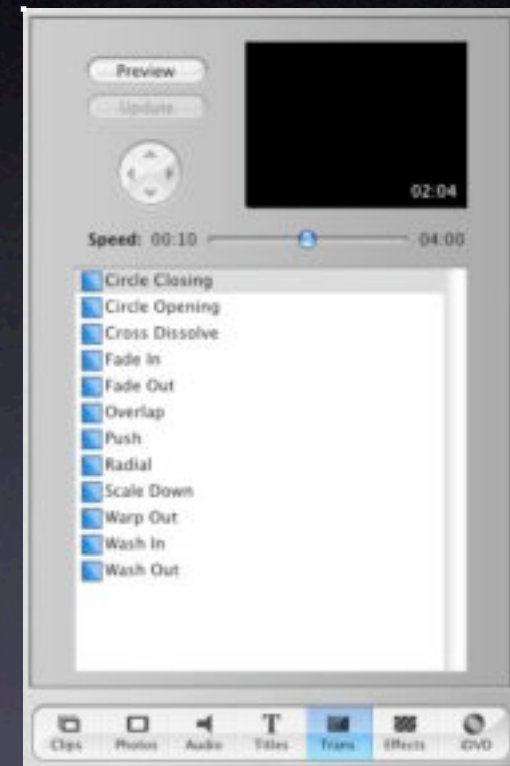
Photo – Ken Burns Effect

- Click “Start”
 - Choose zoom value
 - Drag image to desired start location
- Click “Finish”
 - Choose zoom value
 - Drag image to desired end location
- Set duration



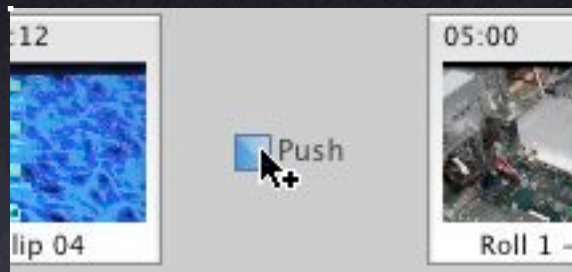
Transitions Pane

- Open Transitions pane
- Move playhead or select clip
- Click on transition name
 - You will see a preview
- Change duration
 - Listed as seconds:frames
- Change direction if available
- Click Preview

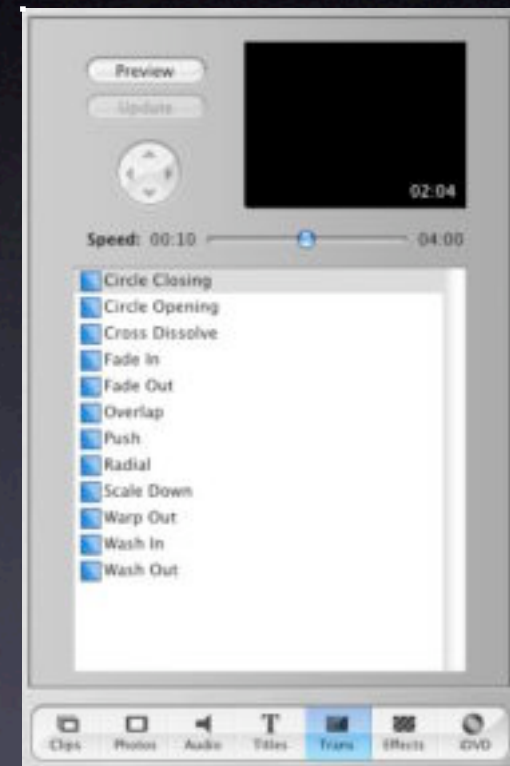


Adding Transitions

- Click on transition icon and drag it between desired clips

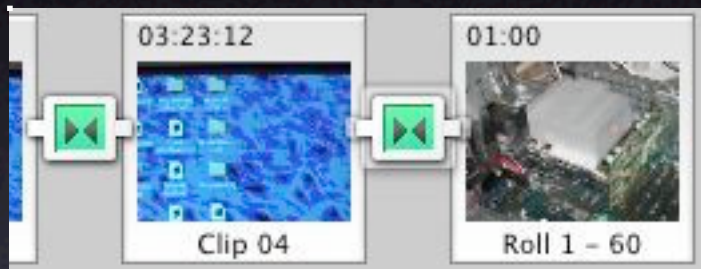


- Work while it renders

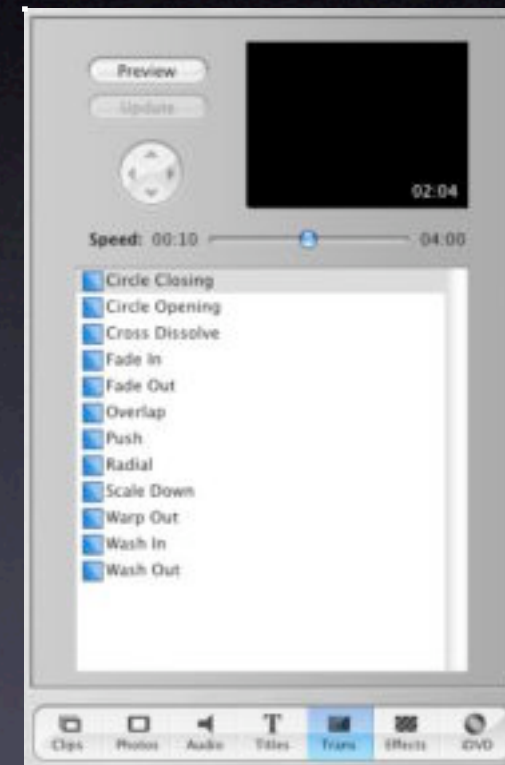


Adjusting Transitions

- Select transition

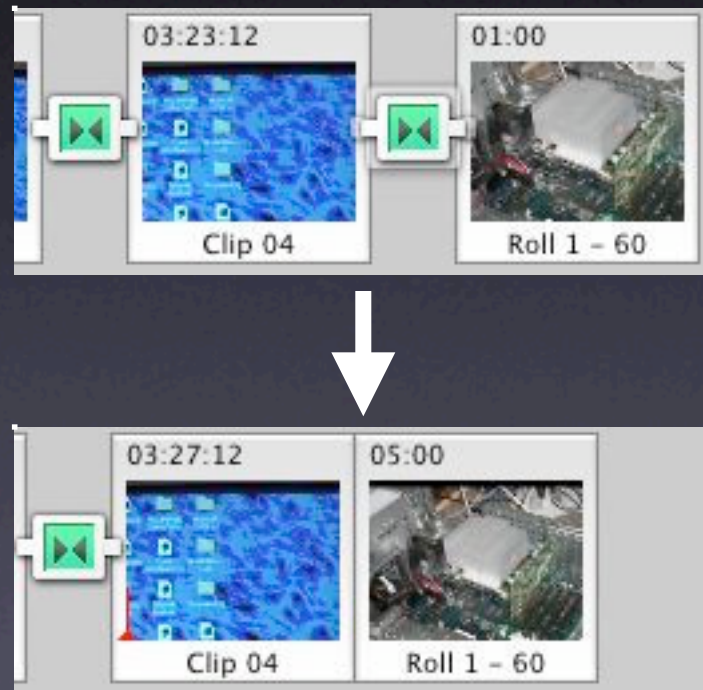


- In Transitions pane, change Speed or direction
- Click Update



Removing Transitions

- Select transition
- Press Delete key or Edit -> Clear



Transition Tips

- Always add fade in and fade out
- Most clips should have no transition
- Cross dissolve is the most common transition
- Some transitions cause clips to overlap
 - Clips have to be longer than transition
 - Movie length will decrease
 - Add transitions before editing audio!

Transition
here



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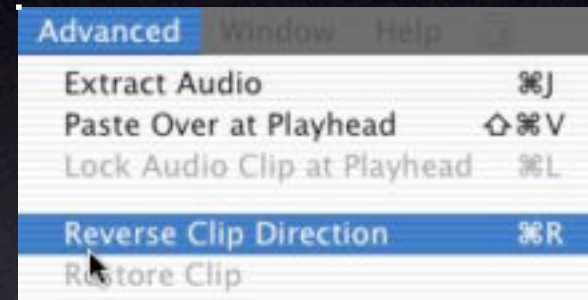
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Motion Effects

- Reverse

- Select clip



- Select Advanced -> Reverse Clip Direction

- Speed up or slow down

- Select clip or desired portion of clip
- Open Timeline viewer
- Drag rabbit/turtle slider



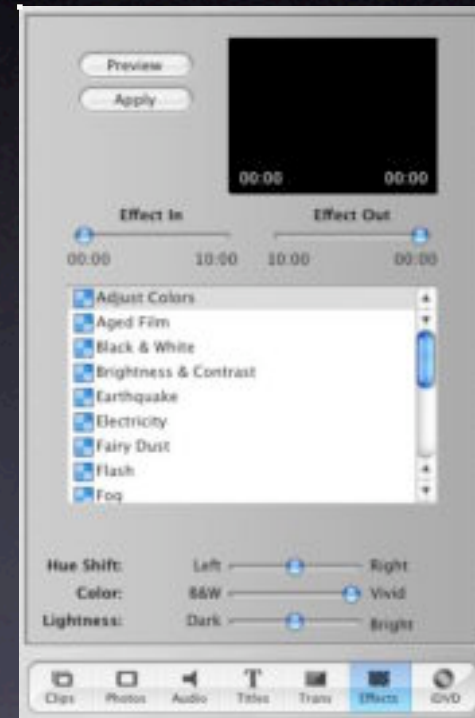
Video Effects

- Effects help a movie
 - Flow
 - Keep attention
 - Add special effects
- What to watch out for:
 - Don't use too many
 - Keep it simple (at first)
 - Adjust the duration for the transition



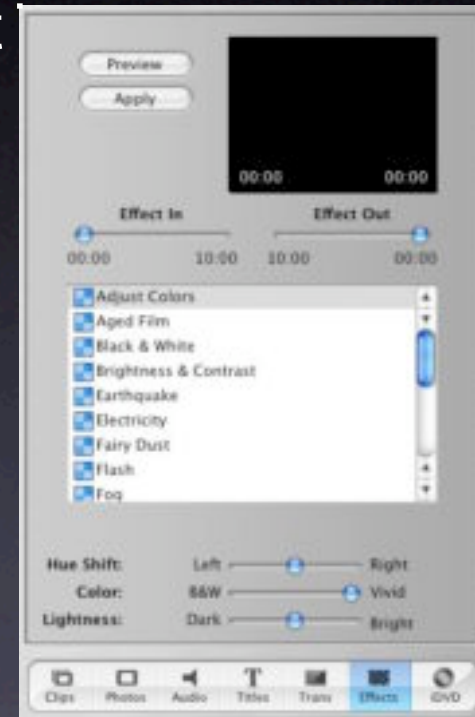
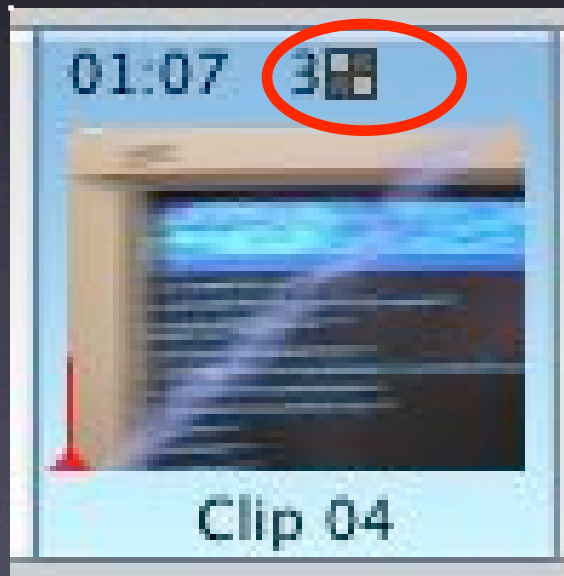
Adding Effects

- Select Effects pane
- Select clip or portion of clip
- Change fade in/out
 - 00:00 is instant appear/disappear
- Change options
 - Direction, location, etc
- Click Preview
- Click Apply



Multiple Effects

- Clips can have more than one effect
 - Number of effects shown at top of clip



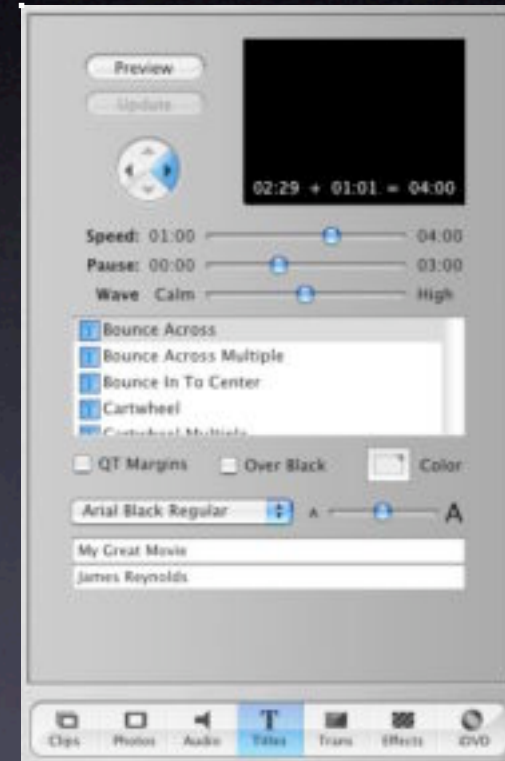
Deleting Effects

- If you haven't saved or emptied the iMovie Trash
- Select clip with effect
- Select Advanced -> Restore Clip



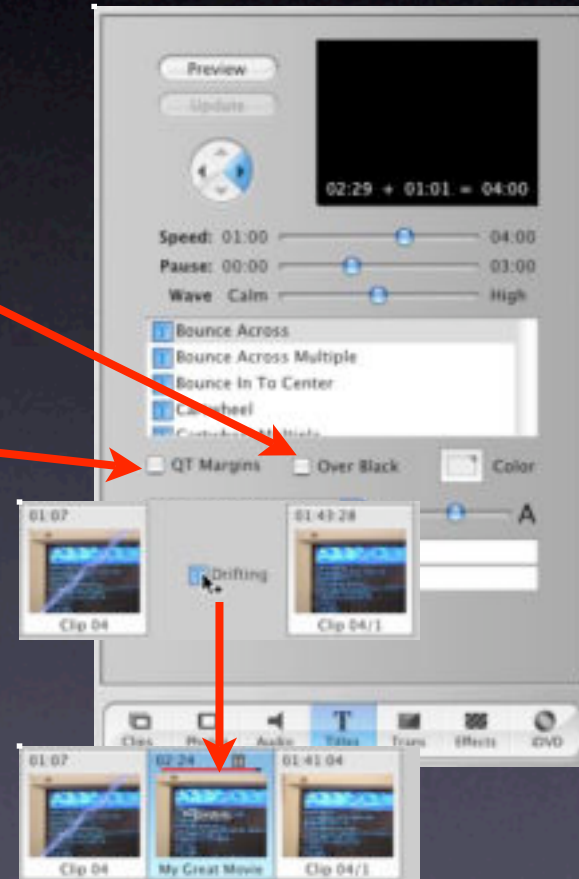
Titles

- Titles aka Captioning
 - Select Titles pane
 - Select type of title
 - Type text
 - Choose font, size, color
 - Speed slider sets in/out speed
 - Set pause
 - Set direction if possible
 - Click Preview



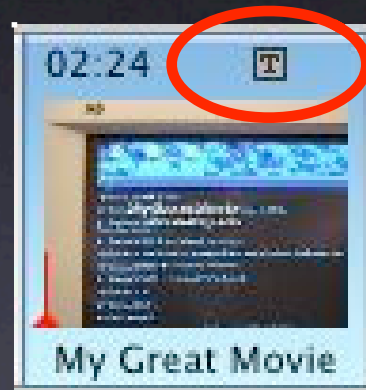
Editing Titles

- Over black
 - Otherwise it is over video
- QT Margins
 - Changes margins
 - QT is full window
 - Otherwise it is TV margins
- Drag title to clip



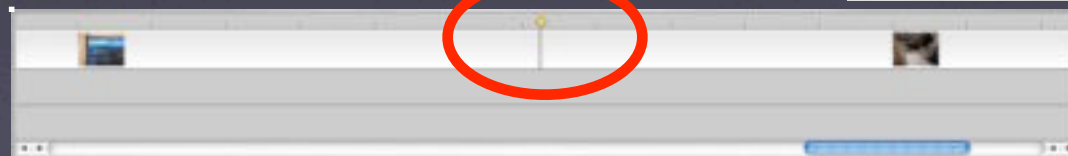
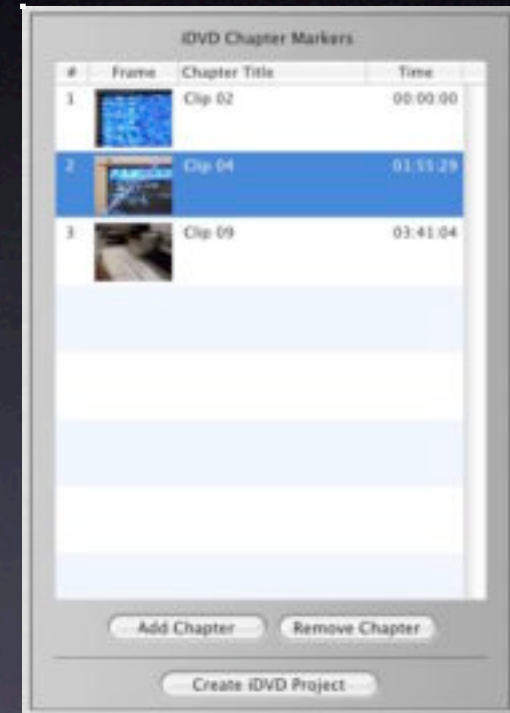
Deleting Titles

- Click on clip with text and hit delete key



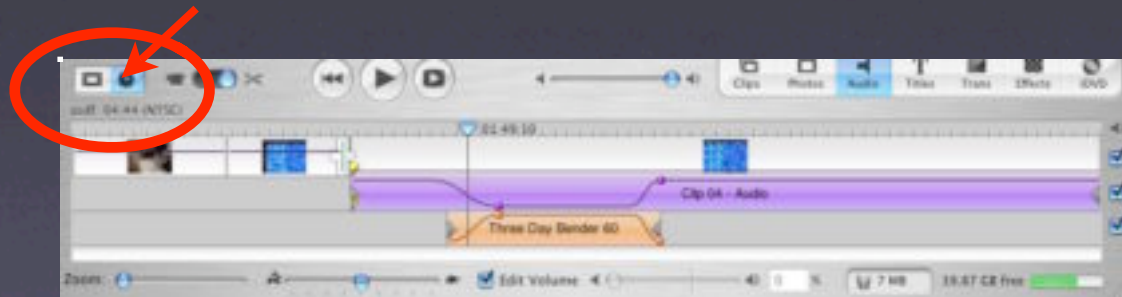
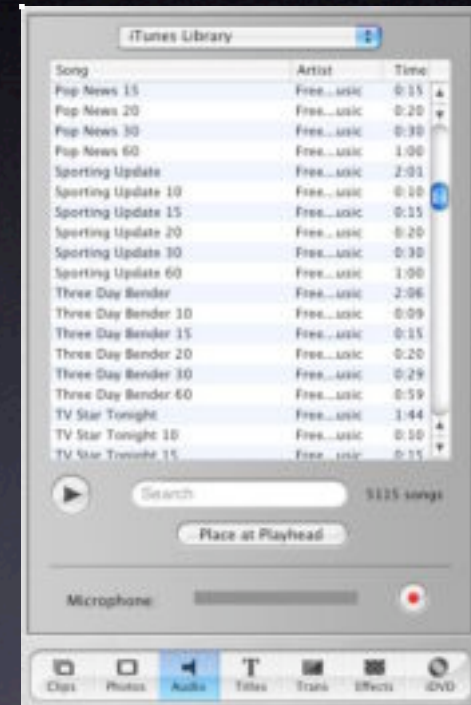
Chapter Markers

- Make DVD chapters
- Move play head to desired location
- Click Add Chapter
- Set name
- Timeline viewer diamonds



Audio

- Before working on audio!!!
 - Finish Video
 - Finish Transitions
 - Effects, Captions & Titling
- Click Audio Pane
 - Select Timeline Viewer



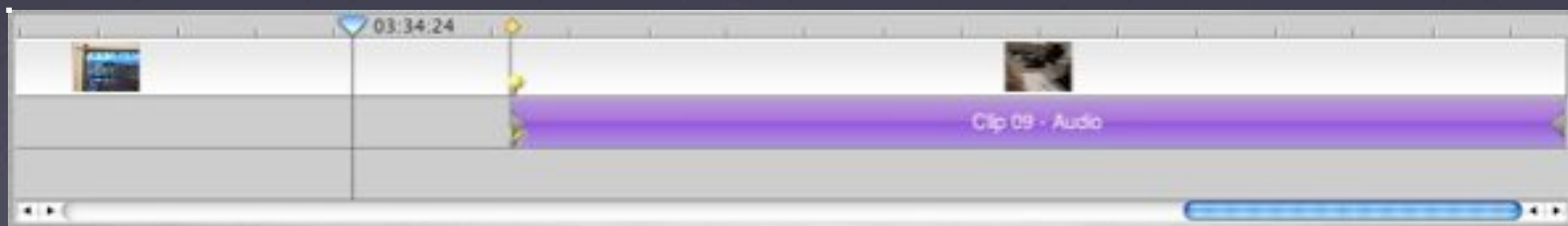
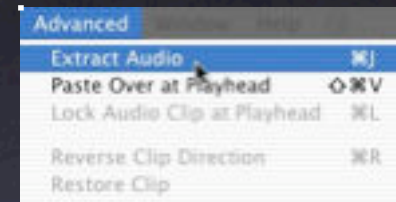
Audio Sources

- Five main sources of sound
 - Audio track imported with video
 - Sound effects included with iMovie
 - Track(s) from Audio CD's
 - iTunes
 - Record your own (microphone)



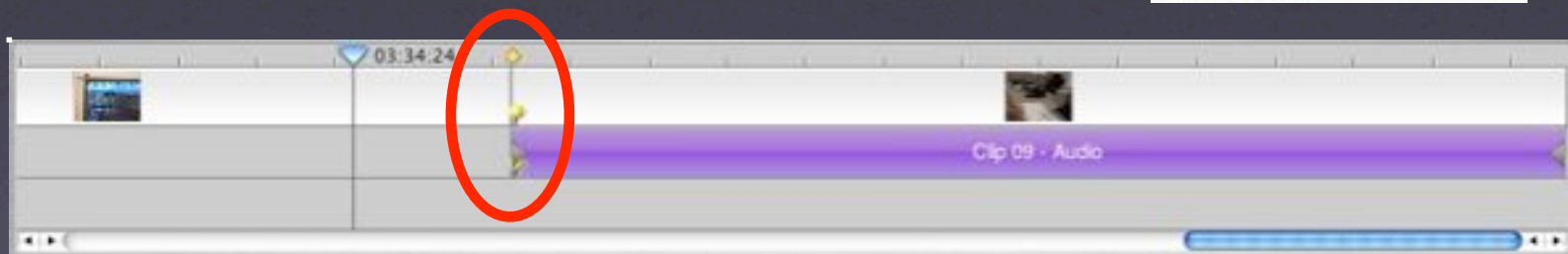
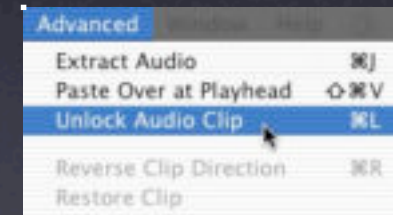
Imported Audio & Video

- Audio track included with imported video
 - Select the video clip
 - Click Advanced -> Extract Audio
 - Audio clip appears below video clip



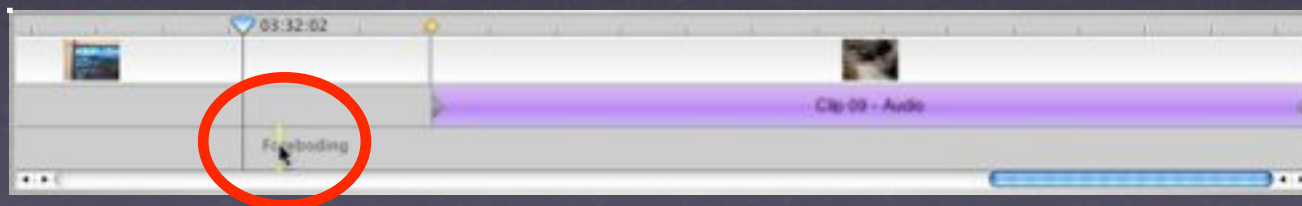
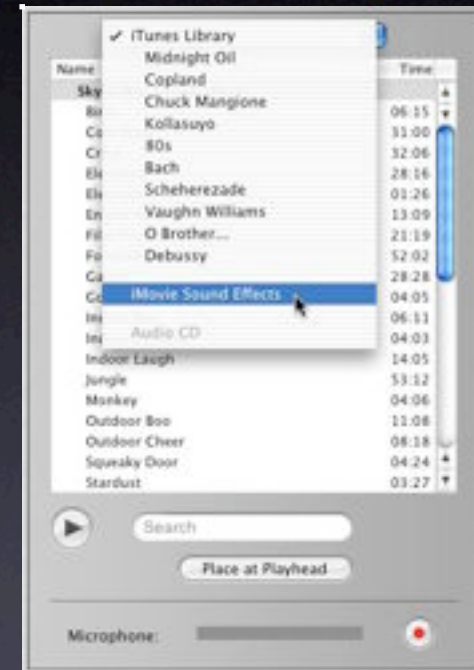
Imported Audio & Video

- Audio track included with imported video
 - Video clip is muted, not stripped
 - Audio is “Locked” to video
 - To unlock, select Advanced -> Unlock Audio Clip



iMovie Sound Effects

- Sound effects included with iMovie
 - Select “iMovie Sound Effects”
 - Select a sound and drag to Timeline Viewer
 - Demo of sounds...



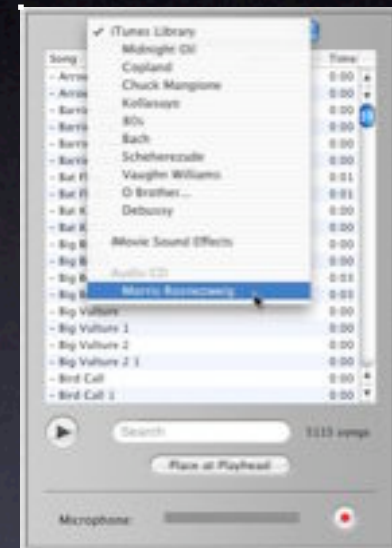
iMovie Sound Effects

- Sound effects included with iMovie
 - Skywalker Sound and iMovie sound demo



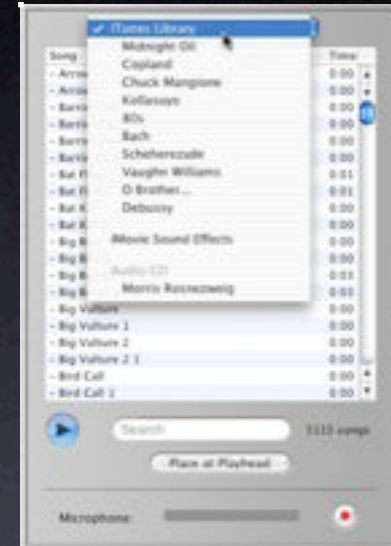
CD Audio

- CD
 - Insert CD
 - Select CD in popup
 - Select track and drag
 - Or click “Place at Playhead”



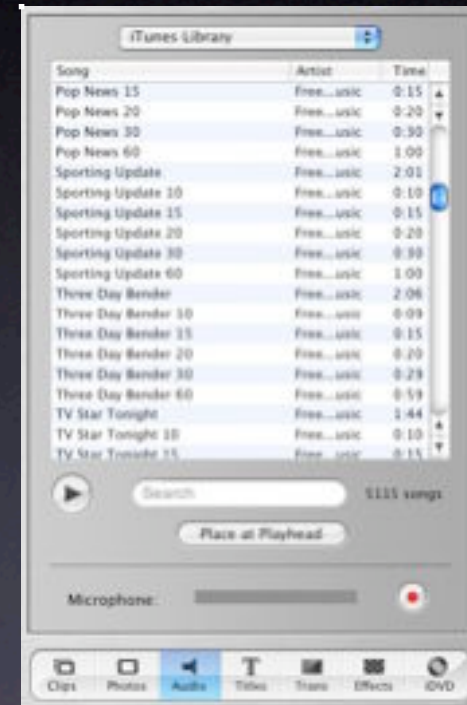
iMusic Audio

- iTunes
 - Select iTunes in popup
 - Select track and drag
 - Or click “Place at Playhead”
 - AIFF, MP3, WAV formats



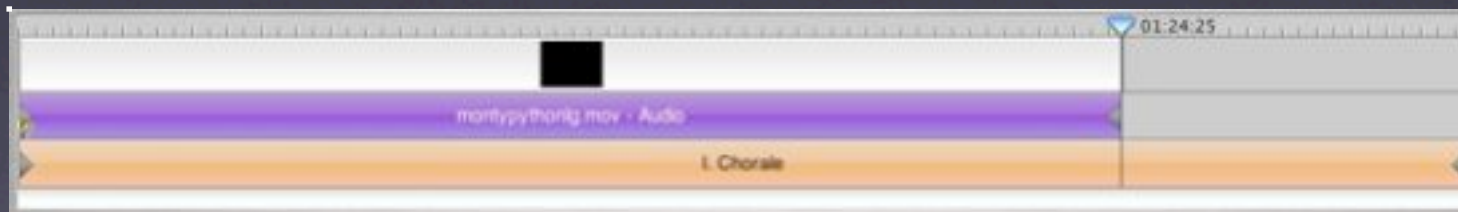
Microphone Audio

- Record your own
 - Get a microphone
 - Move playhead to desired location
 - Click record button
 - If meter turns red, you are too loud
 - Click stop button
 - Same button



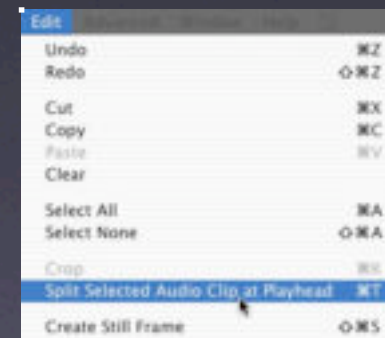
Moving Audio Clips

- Click audio clip and drag
 - Beginning frame shown in monitor
- Drag it to either audio track if desired
 - Top track is default extracted audio location
 - Bottom track is default imported audio location



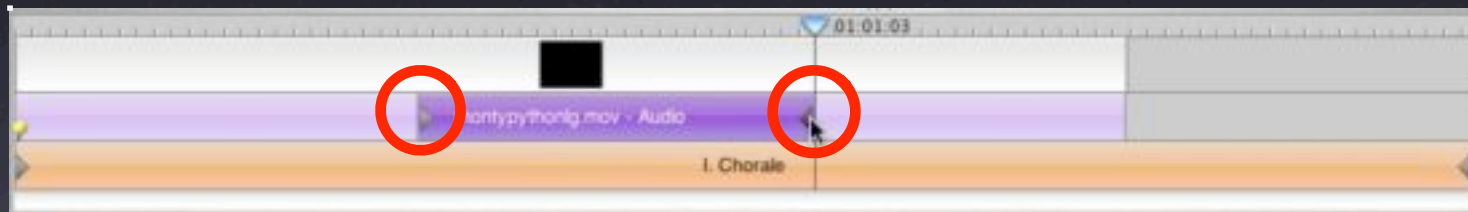
Deleting & Cropping Clips

- To delete entire clip
 - Click on clip and press delete key
- To crop clip (method 1)
 - Move playhead to desired cut location
 - Select Edit -> Split Selected Audio Clip at Playhead
 - Click on unwanted half
 - Press delete key
 -

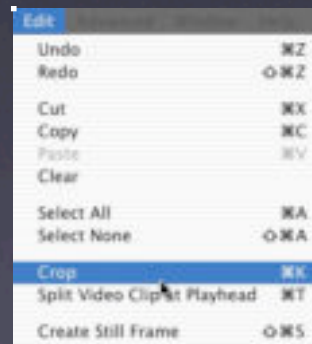


Cropping Clips (method 2)

- To crop clip (method 2)
 - Select audio clip
 - Drag crop markers to shorten clip



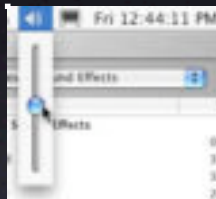
- Select Edit -> Crop



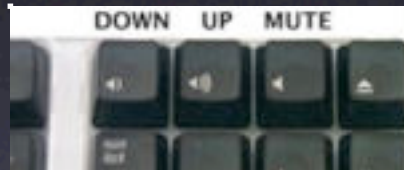
Adjust Computer Volume

- To change computer volume

- Menu

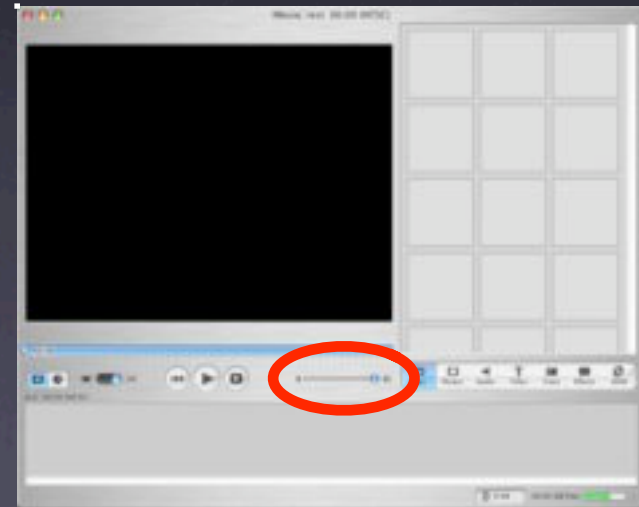


- Keyboard



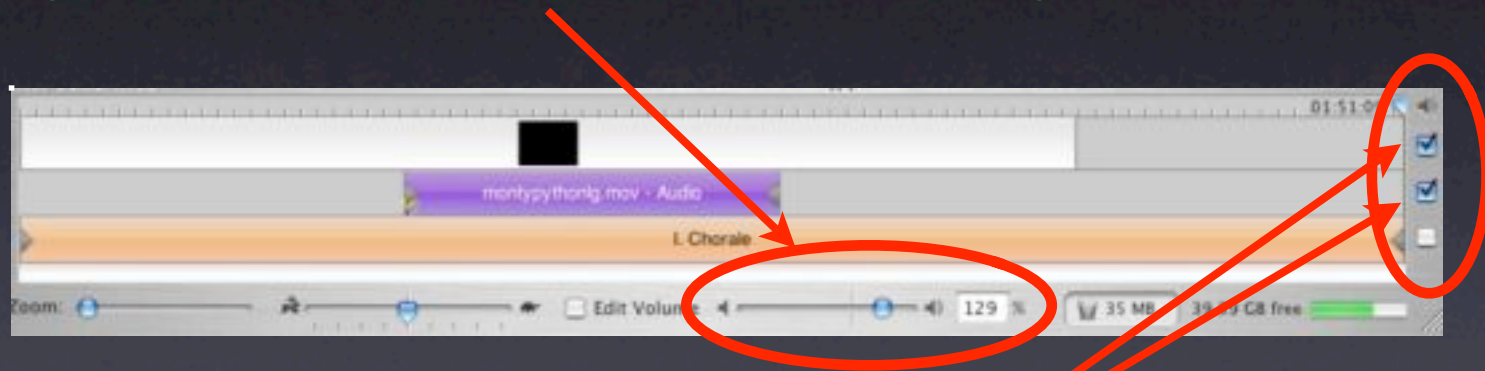
- To change movie volume

- iMovie window



Adjust Clip Volume

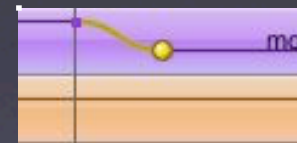
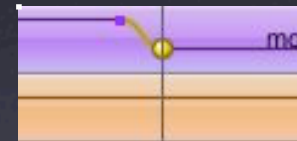
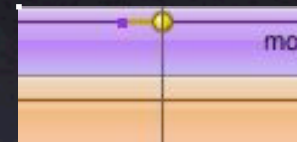
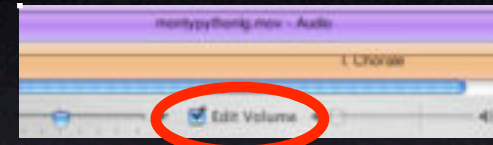
- Select clip
- Adjust volume slider (below Timeline window, not above)



- Mute one or both audio tracks

Audio – Clip Envelope

- Click Edit Volume checkbox
- Click the line at desired location
- Drag dot up or down
- Change slope with smaller dot

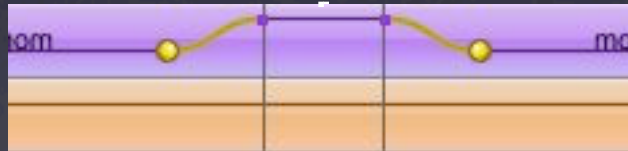


Editing Clip Volume

- To remove, click dot and press delete



- Use this to add fade in and fade out



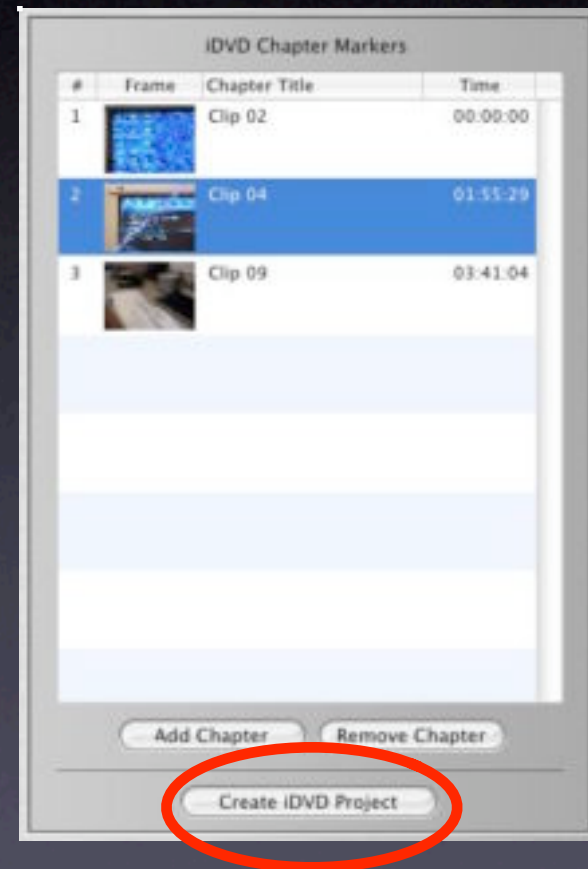
Exporting iMovie

- Burn a DVD
- Record to DV camcorder tape
- Save movie as a file
 - Storage
 - Put it on the web
 - Send in email



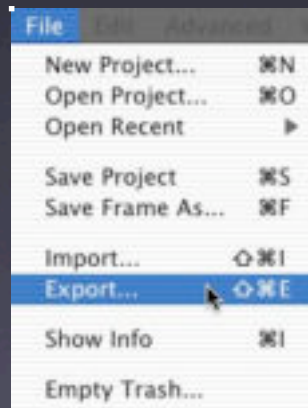
Export Movie to iDVD

- Open iDVD pane
- Click “Create iDVD Project”
- Wait
- Open iDVD and burn



Export to DV Tape

- Connect camcorder to computer
- Put DV tape in camcorder
- Put camcorder in VTR mode
- Select File -> Export -> To Camera



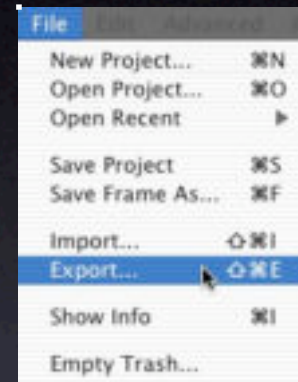
Export to DV Tape

- Set seconds to wait for camcorder
- Set seconds of black time
- Wait (this is a 1x process)



Export to File

- Select File -> Export -> to Quicktime
- Select format
 - Email
 - Web
 - Web Streaming
 - CD-ROM
 - Full Quality DV
 - Expert Settings



Finishing Up

- Your turn to test drive the camcorders
 - But first...
 - Next class
 - Survey
 - Contact information
 - Questions and answers
 -



Next Class

- Digital Video - Part 3

Friday November 21, 2003

9:00 AM — 10:00 AM

MMC 1745

- Editing and Distribution tips
 - How to import
 - How to edit
 - How to publish



Survey

How did we do?

Please take a minute to fill out the survey.



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Contact Information

- Web — www.macos.utah.edu
- Email — mac@scl.utah.edu
- Offices — Multimedia Center (Room 1705), ask at the service counter for someone from the “Mac Group.”



Questions & Answers



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