



UNIVERSITY OF UTAH
STUDENT COMPUTING LABS

Digital Video Act III – Importing, Editing, & Distribution Tips

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Macintosh Support
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Class Overview

- **Importing tips**
- **Editing tips**
- **Distribution tips**
- **Ideas for movies**
- **Practice**

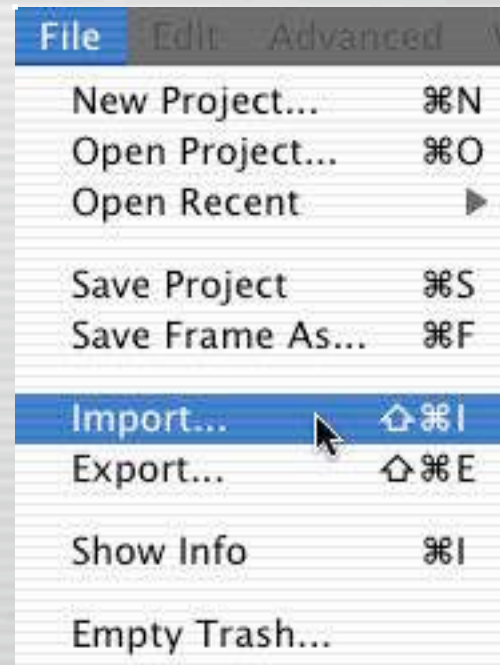
Import Tips – Camera

- **Dump an entire DV tape to the computer**
 - Easier to find footage on computer than camera
- **Dump trimmed clips back to tape**
 - Do this before making a movie
 - Keep good raw footage only

Import Tips – Files

- Drag file from Finder to Clips Pane

- File → Import



Import Tips – Files

- **Image files**
 - Use iPhoto and the Photo pane
 - Or drag and drop
 - Or File - > Import
- **Audio files**
 - Use iTunes and the Audio pane
 - Or drag and drop
 - Or File - > Import

Import Tips – Files

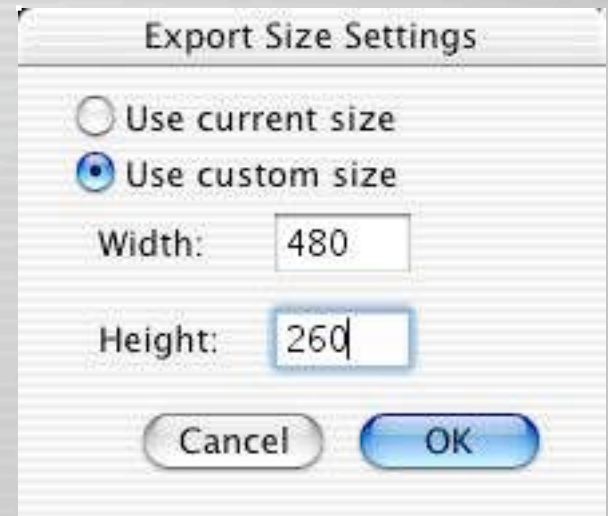
- **Import formats**
 - dv
 - mov
 - mpg or mpeg (MPEG-1 and MPEG-4)
 - **Other formats**
 - avi by installing 3vix codec
 - Fix .avi files with Divx Doctor II or others
 - MPEG-2
 - Convert to mov with using Diva or others

Import Tips – Files

- **MPEG-1 (1992)**
 - VHS quality
 - VCD, CD-ROM, mpg, mp3
- **MPEG-2 (1996)**
 - DVD quality
 - Digital TV's, DVD's, mpg, vob, vro, etc
- **MPEG-4 (1999)**
 - Scalable quality
 - mp4

Import Tips – Aspect ratio

- Method #1
 - Import the file with the non 4:3 aspect ratio
 - Edit
 - Export using “Expert Settings” and custom size



Import Tips – Odd Sizes

- **Method #2**
 - Create a 720 x 480 image
 - Open image and movie in QuickTime Pro
 - Select all of image
 - Copy
 - Paste into graphic window
 - Get properties of Video Track 1
 - Change size and placement of movie to fit
 - Save as self contained
 - Import into iMovie

Original movie size



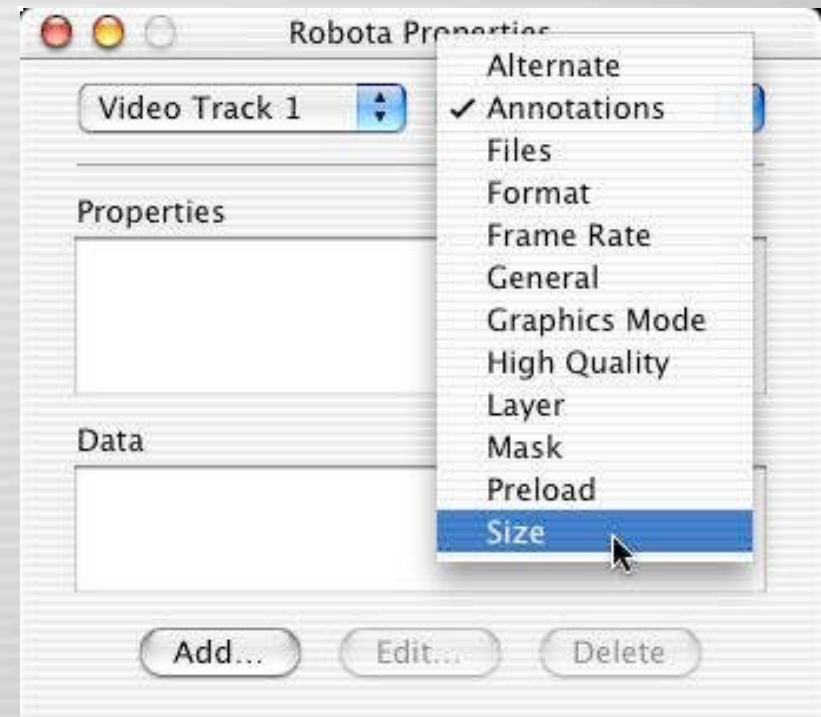
720 x 480 image – copy this



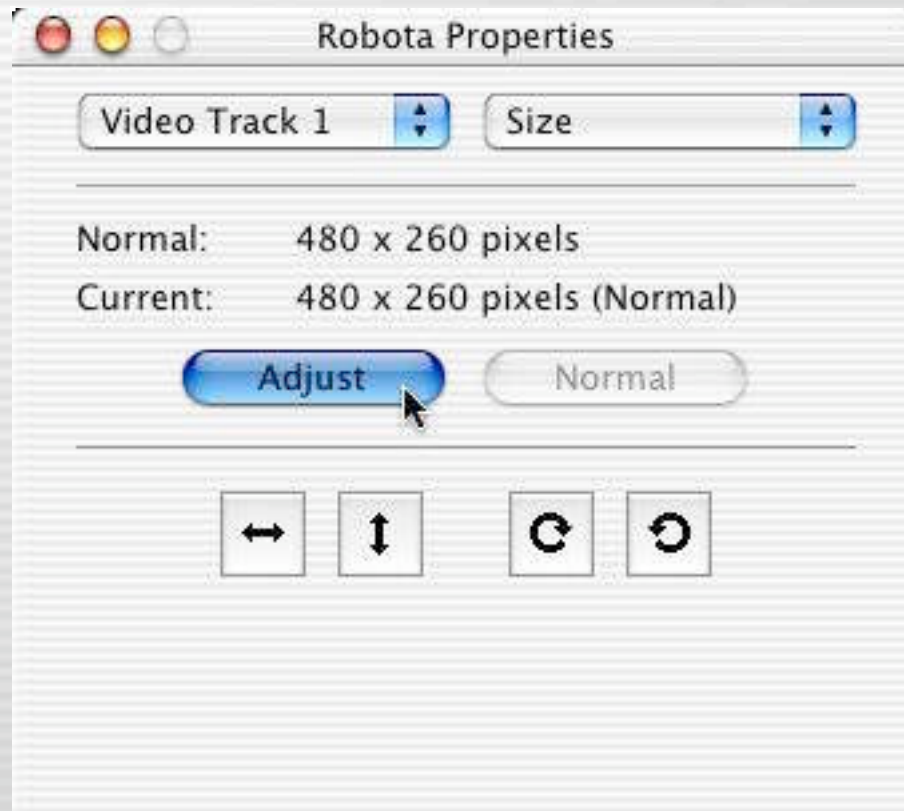
Paste graphic into movie



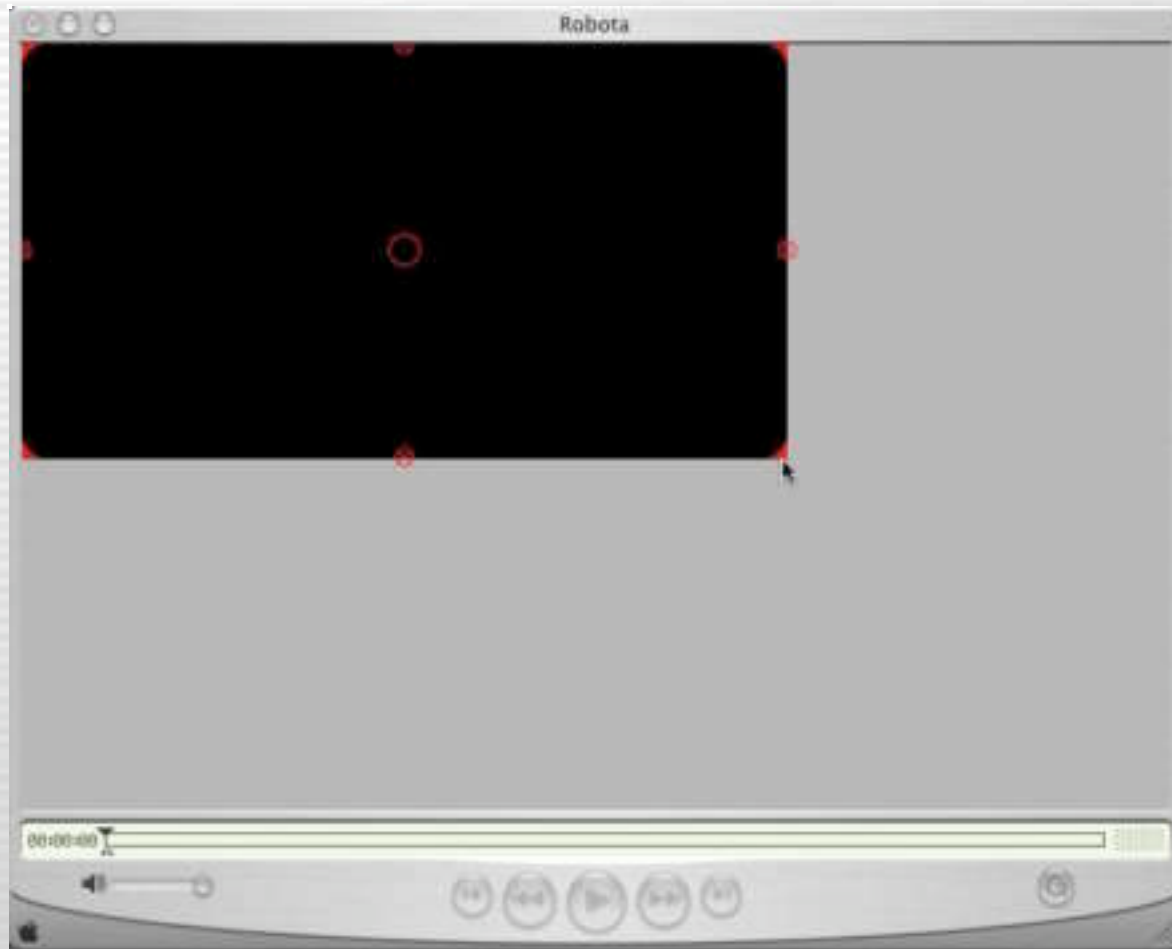
Get size for video track



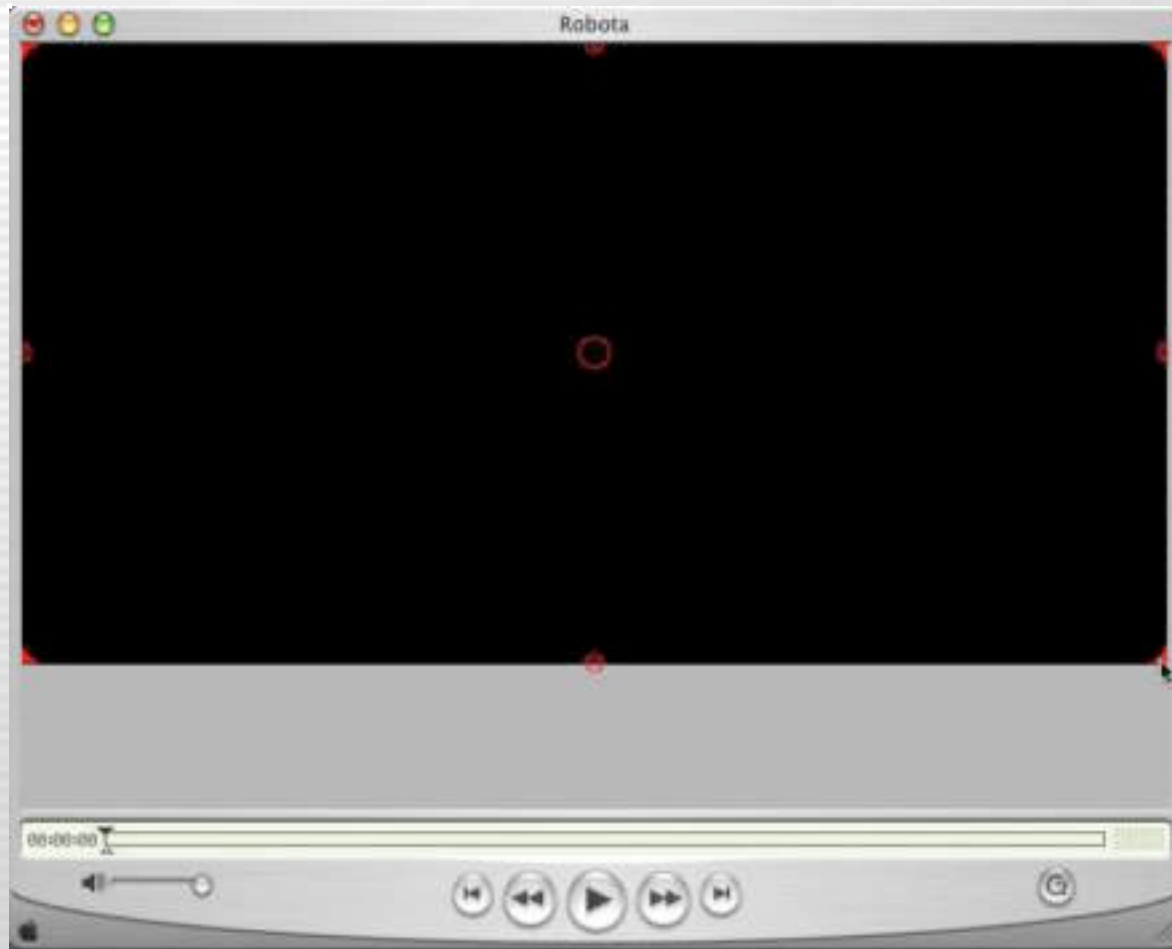
Adjust size



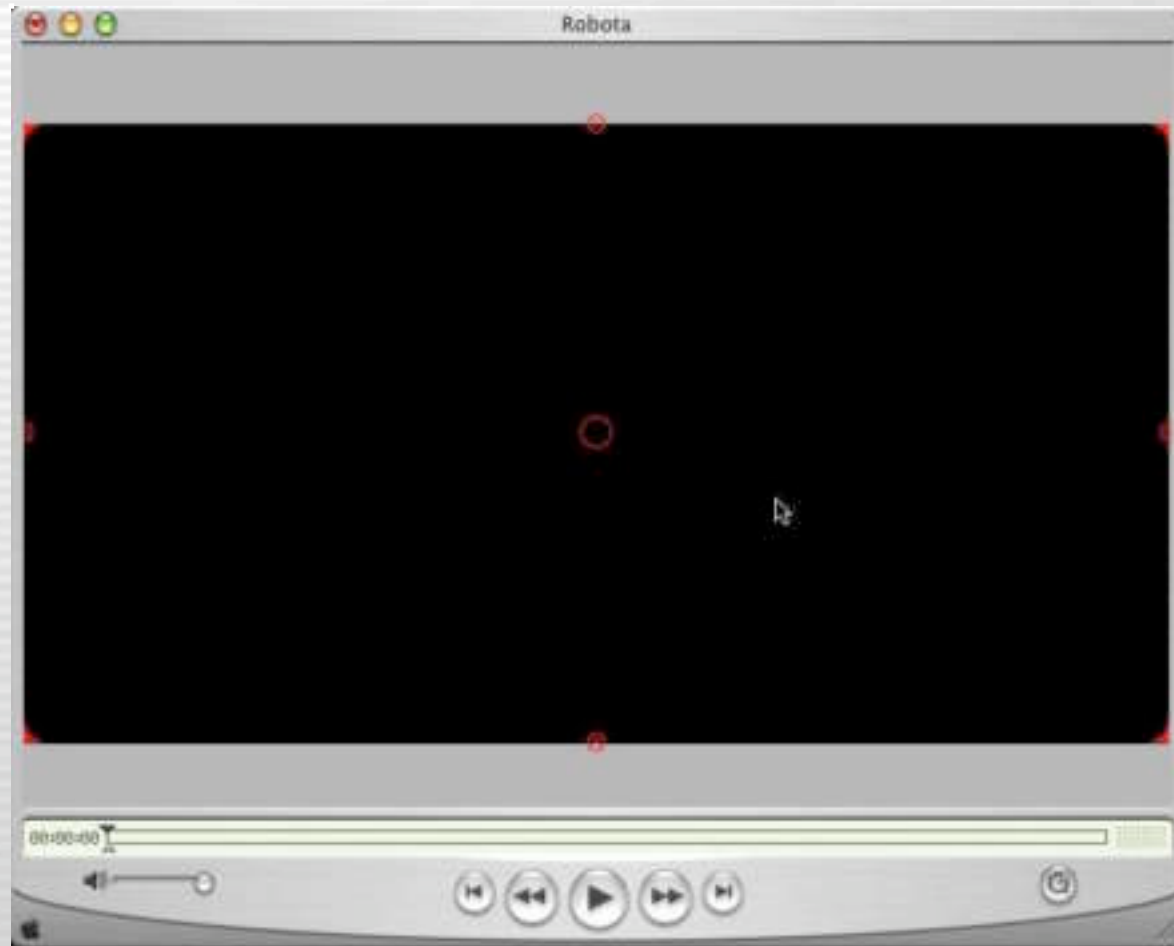
Change size



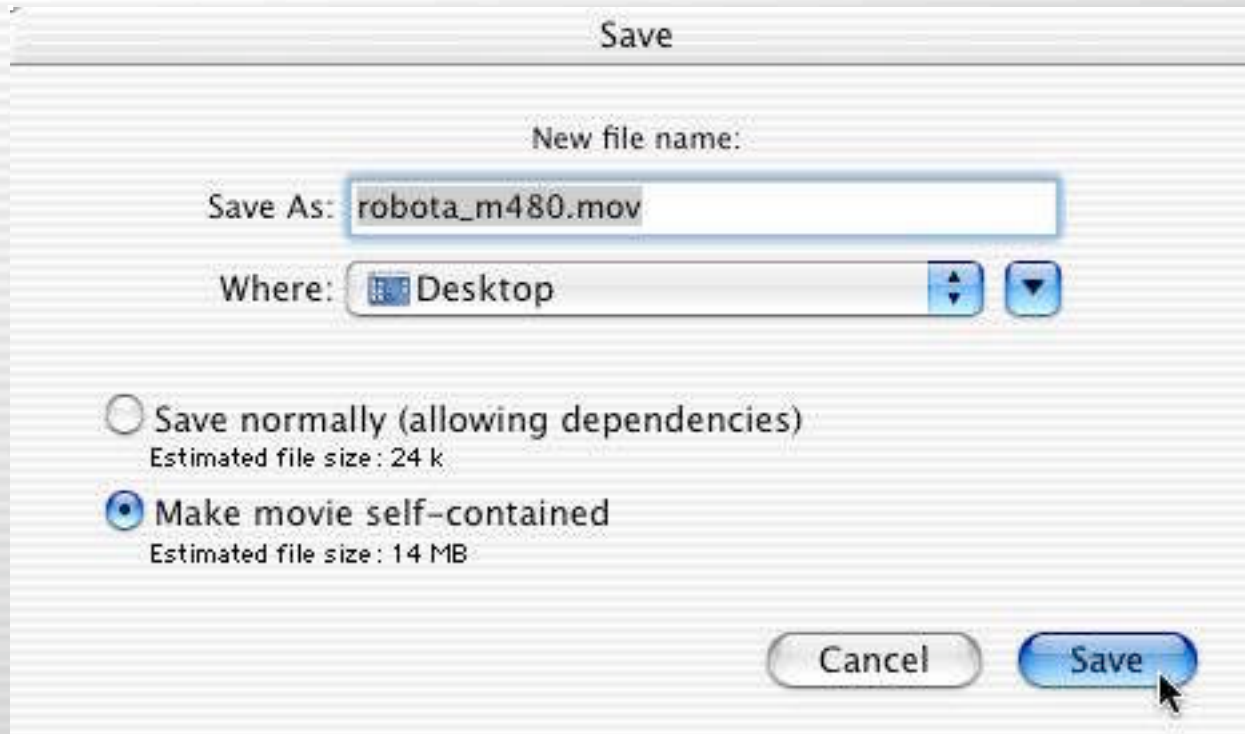
Changing size



Center



Save as self-contained



Import Tips – Aspect Ratio

4:3



NOT 4:3



Edit Tips – Process

- **Import**
 - Dump entire DV tape to computer
- **Trim clips**
- **Dump back to tape**
- **Arrange clips**
- **Add transitions, titles, effects, audio**

Edit Tips – Clip flow

- Maintain “idea continuity”
 - Just like writing class
- Keep clips similar length

Edit Tips – Arrange Clips

- **Similar angles and subjects (interview)**
 - **Do not put next to each other**
 - **Insert a shot of anything else**
 - **If you must do this, use a quick crossfade**

Edit Tips – Transitions

- Always fade in at beginning
- Always fade out at ending
- No transition is the most common cut
- Crossfade is the second most common cut
- Pay attention to TV/Movies

Edit Tips – Titles

- Don't put over moving or distracting video
- Use the same font and size throughout
- QuickTime exports need big and bold fonts
- QT margins use full width
- Otherwise, it uses TV-safe margins
- Use still images for special titles

Edit Tips – Effects

- Don't use unless they make sense
 - A photograph would be “Sepia”
 - A dream would be “Soft Focus”
 - Viewpoint from a sleepy person
 - Etc.

•

Edit Tips – Audio

- **Built in editing tricks**
 - Add an echo
 - Create reverb
 - Reuse audio
 - Get rid of unwanted sounds
- **Voice over**
 - Add exaggerated sounds
 - Crunching onion skins = fire
 - Break celery = crunching bones

Edit Tips – Images

- Use fonts/graphics on title pages



- Use with crossfades or other transitions to get limitless possibilities

Edit Tips – File Sizes

- **DV time to file size:**
 - 1 frame – 120 Kb
 - 1 min – 228 MB
 - 15 min – 3.5 GB
 - 30 min – 7 GB
 - 60 min – 13 GB
 - 2 hr – 28 GB
 - 4 hr – 53 GB

Edit Tips – Other Info

- **Minimum monitor resolution: 800 x 600**
- **External firewire drive**
 - **Might be too slow**
 - **Get drive with Oxford 911 chipset (fast)**
- **Mac video clip time**
 - **9:28:17, or 2 gig**

Demo: Import and Edit Tips

- Custom title page, Ken Burns Effect zoom
- Flash created with white graphic
 - Matrix
- Color changes
 - 3 images with crossfades
- Slide show of artwork
- Quicktime odd file size file import
- AVI file import

Export Tips – Compression

- **Smaller resolution**
 - 720 x 480 original
- **Lower frame rate**
 - 29.97 original
- **Spatial compression**
- **Temporal compression**
 - Key frame

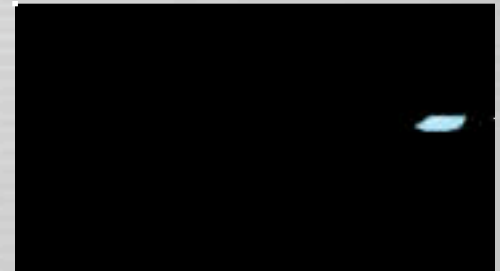
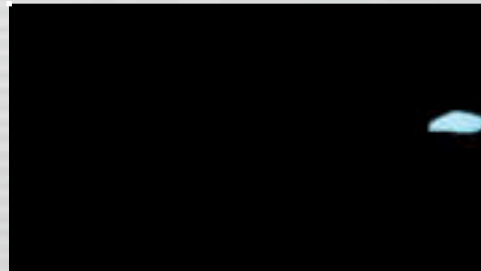
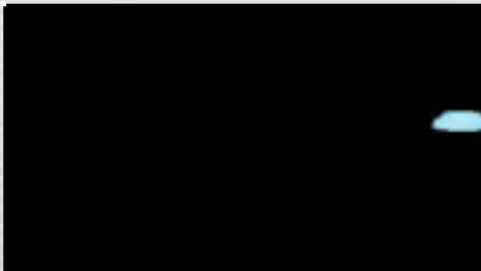
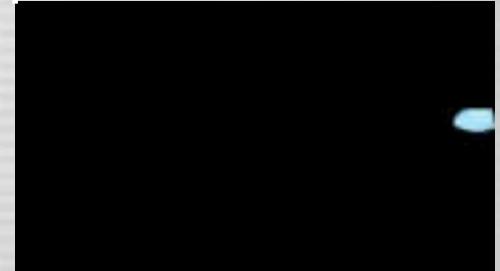
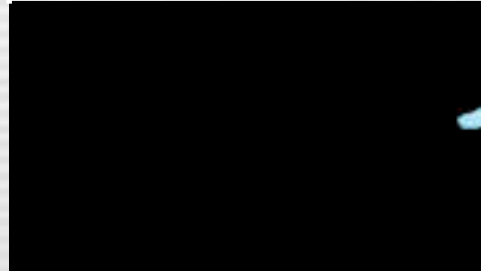
Spatial compression



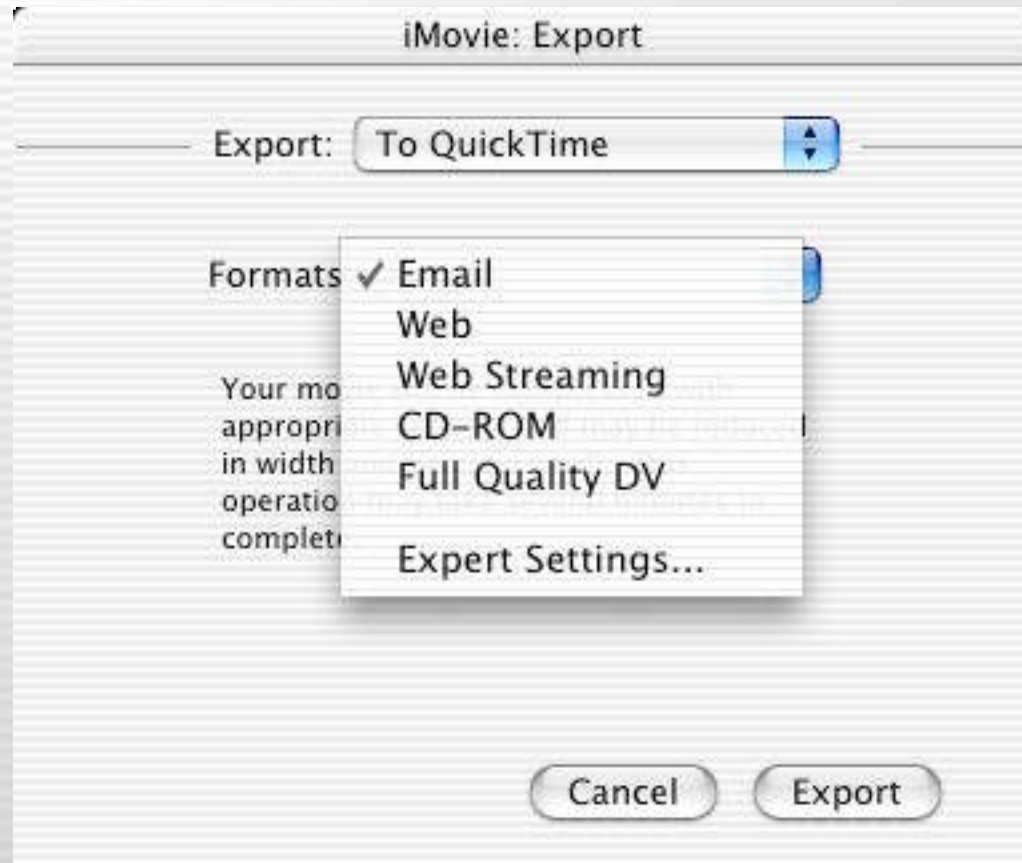
Temporal compression



Key frame



Export Tips

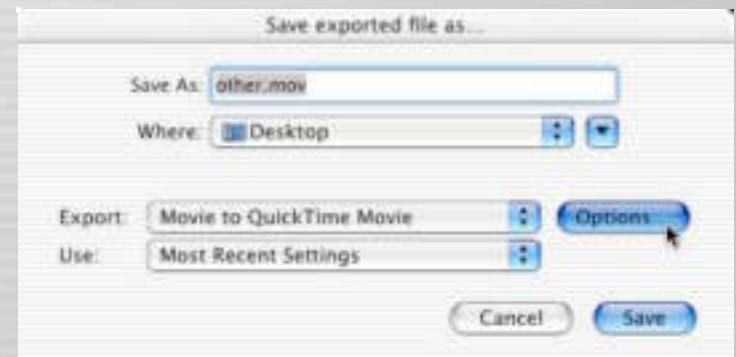
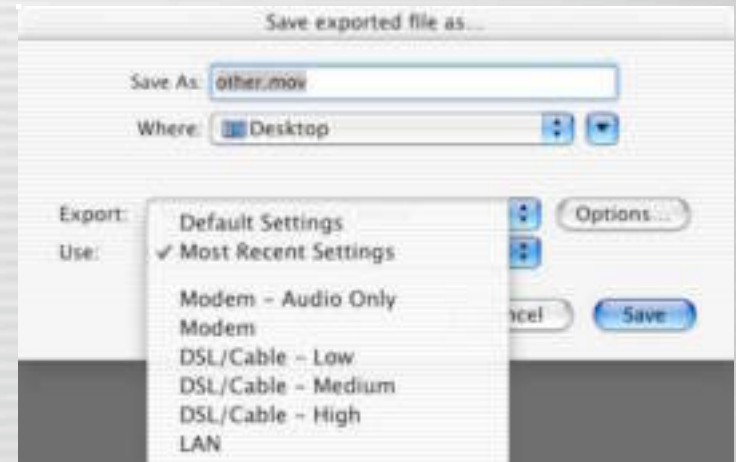


Export Tips – Expert Settings



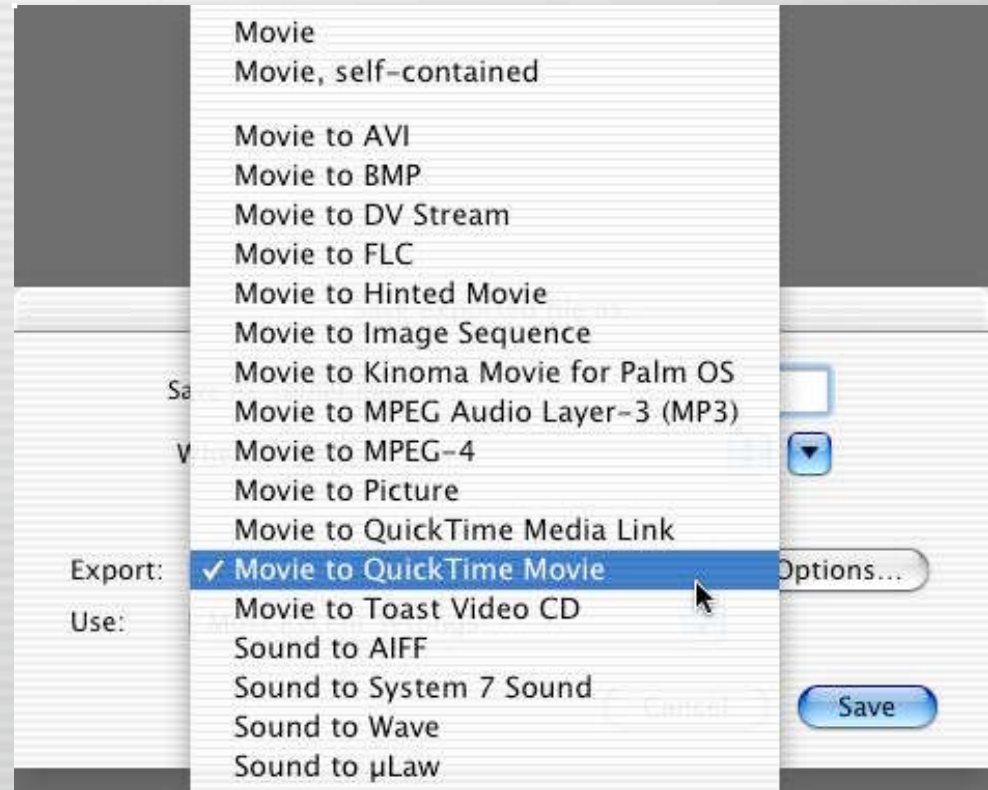
Export Tips – Expert Settings

- **Select Export**
 - Many to choose from
 - QuickTime movie
 - MPEG-4
- Use canned settings
- Or click Options



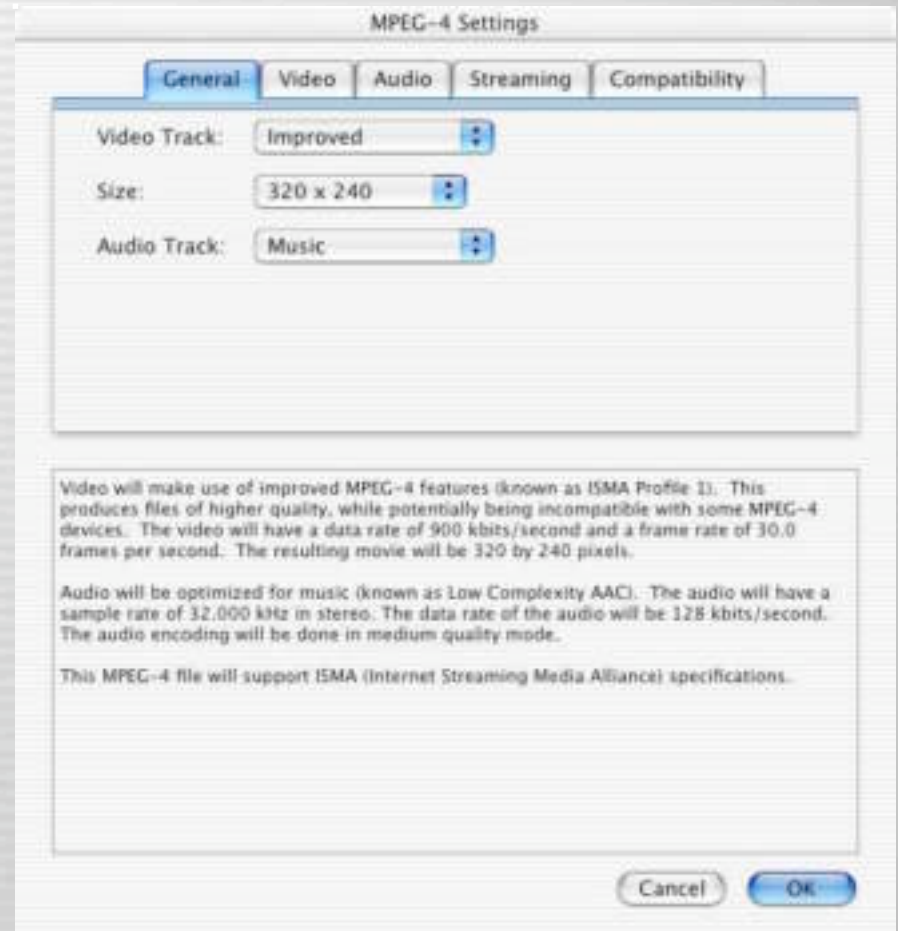
Export Tips – Expert Settings

- MPEG-4
- QuickTime Movie
- AVI
- DV Stream
- Image Sequence
- Toast VCD
-



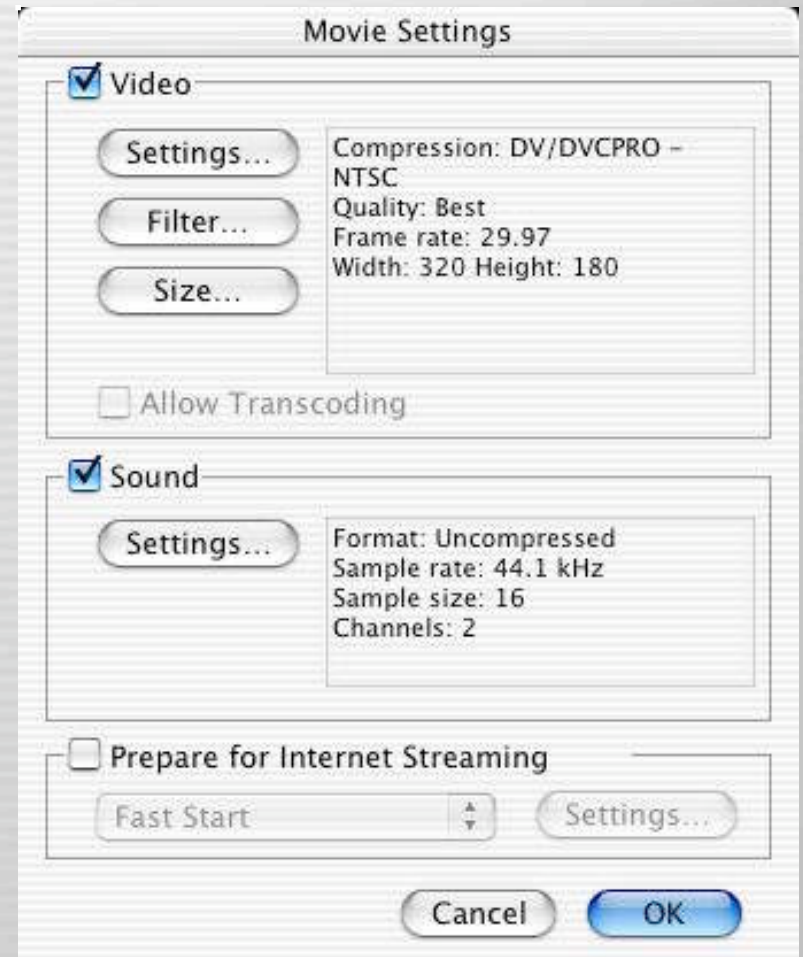
Export Tips – MPEG-4

- A new standard?
- Requires QuickTime 6
- Best compression



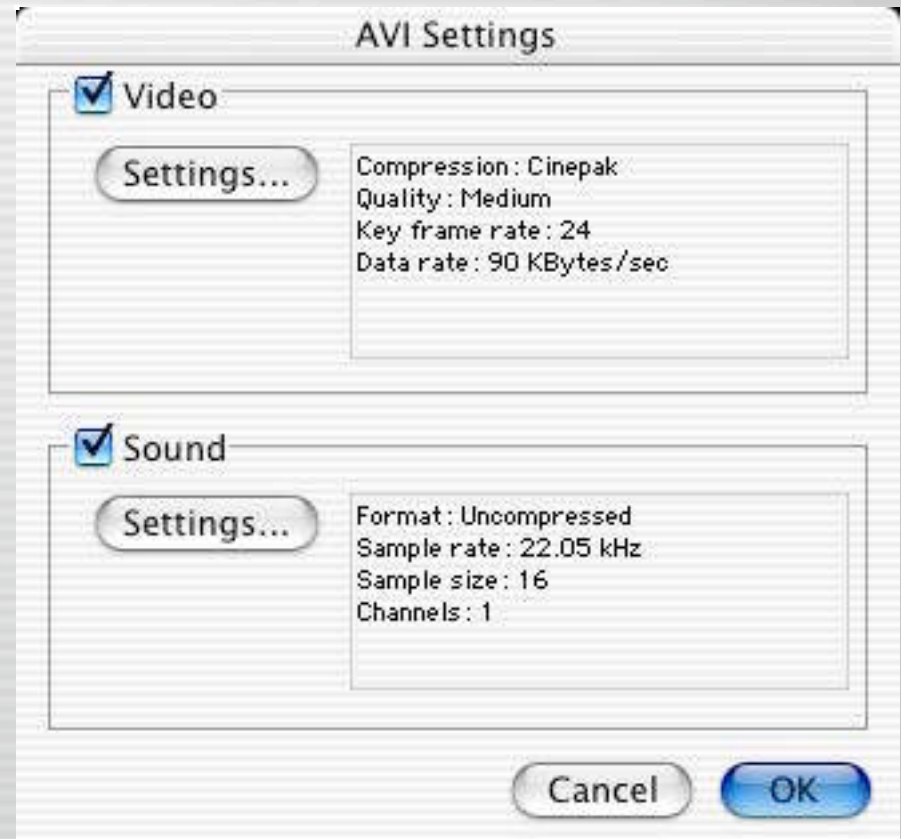
Export Tips – QuickTime Movie

- Macintosh standard
- Change size to anything
- You can configure the codecs
- “Prepare for Internet Streaming” allows “Hinting”



Export Tips – AVI

- Windows standard
- Requires 3rd party codec to view on Macintosh
- You can configure the codecs



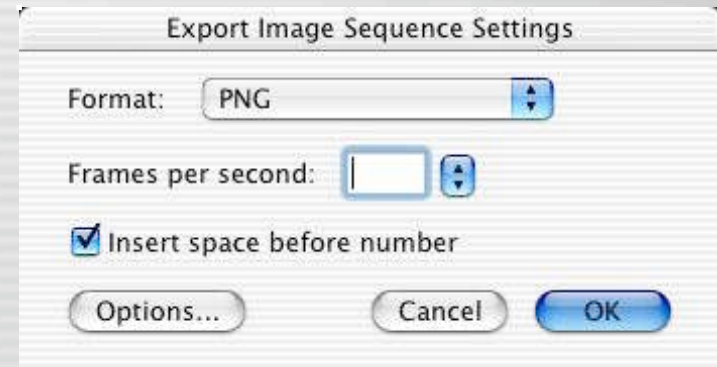
Export Tips – DV Stream

- NO compression
 - FULL QUALITY
 - HUGE file sizes
- Covert to PAL



Export Tips – Image Sequence

- Use if you want to edit frame images
 - Photoshop
 - GraphicConverter
 - Import back into QuickTime when done
- Or export as QT and use ImageReady
- You will lose the audio

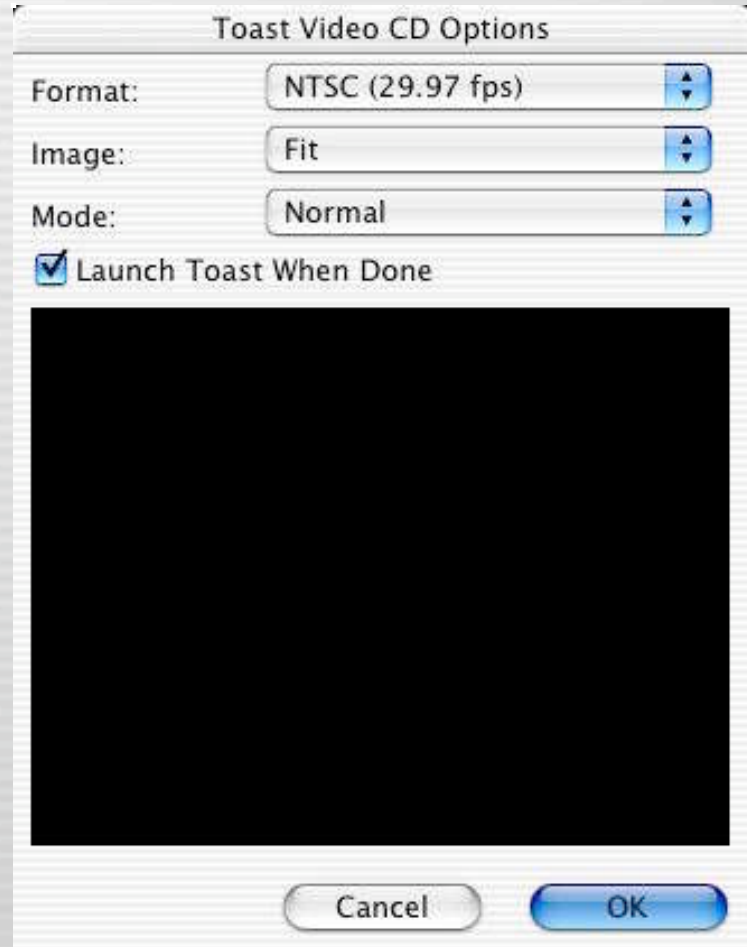


Export Tips – Toast VCD

- **Roxio Toast**

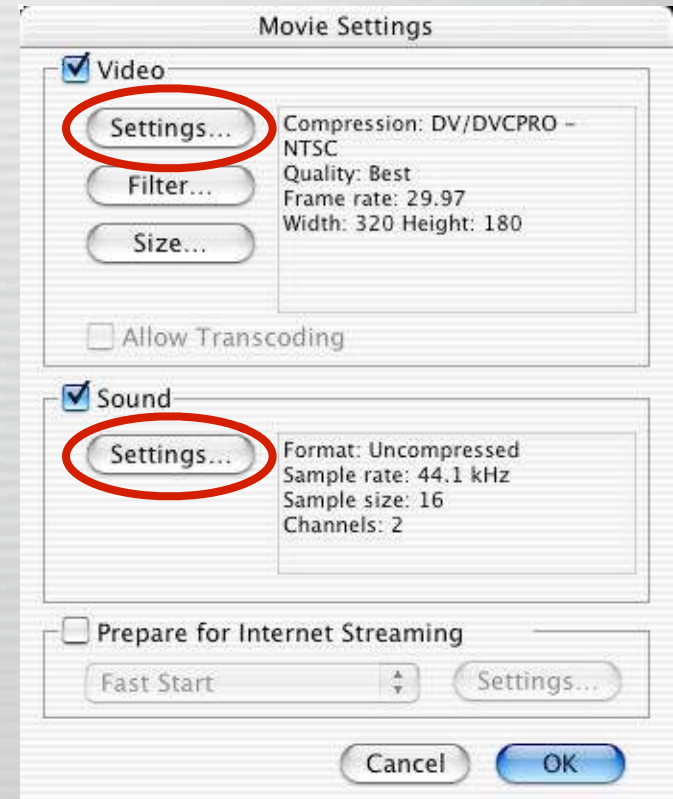
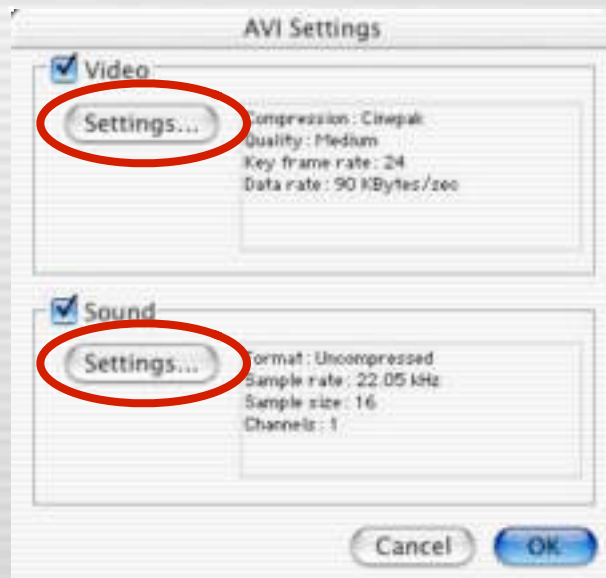


- **Burn a VCD**



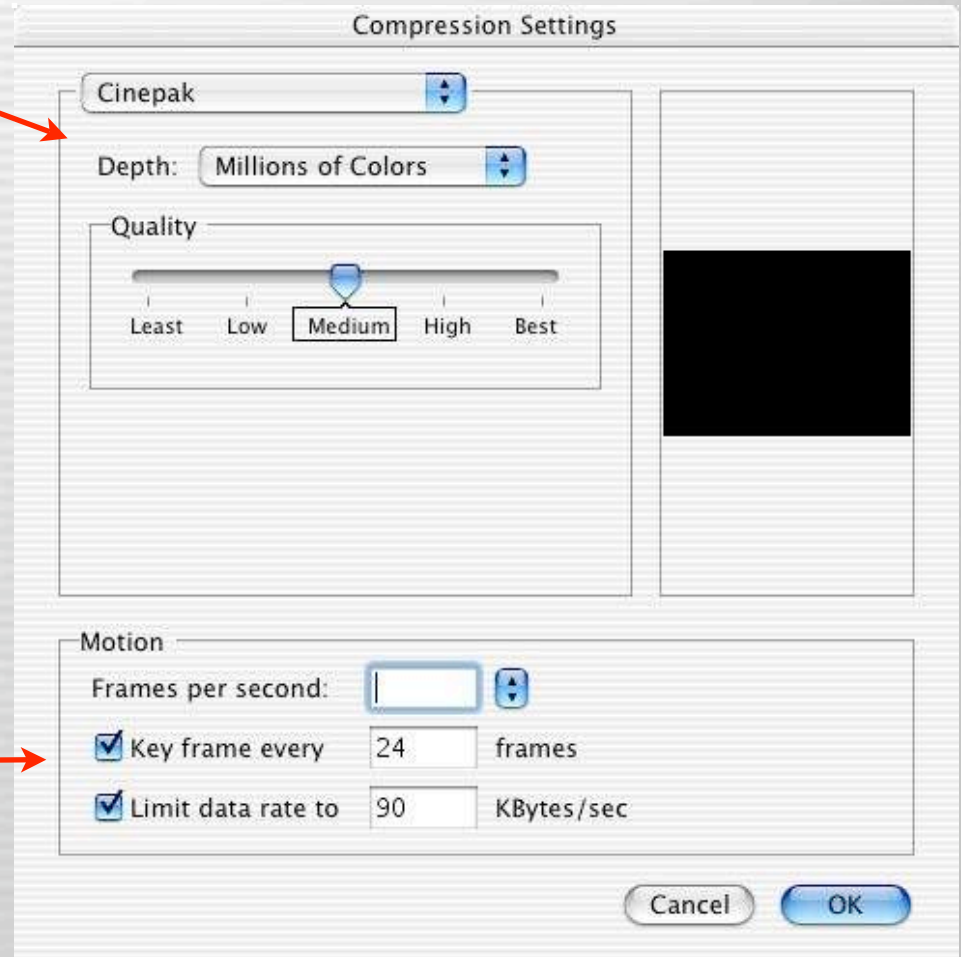
Export Tips – Expert Settings

- Compression settings
 - For AVI and QuickTime



Export Tips – Video Settings

- **Codec settings**



- **Motion settings**

Export Tips – Video Settings

- **Codec settings**

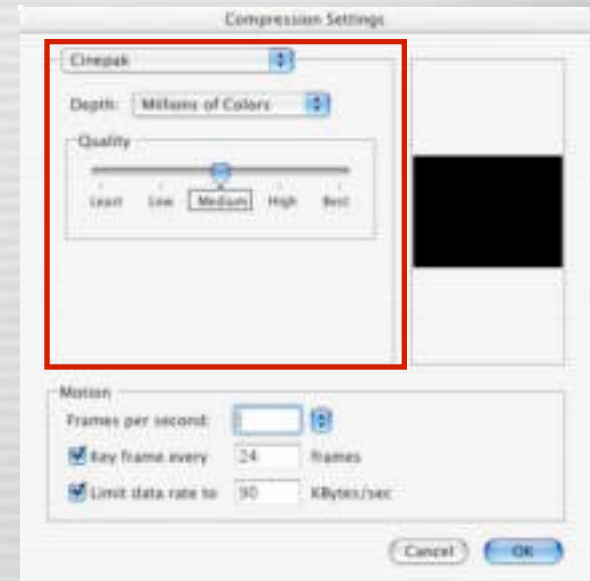
- **Depth**

- Number of colors
 - Higher the crisper

- **Quality**

- How much effort to put into it
 - The higher, the longer it will take
 - The higher, the bigger the file size will be (generally)

- **More options depending on codec**



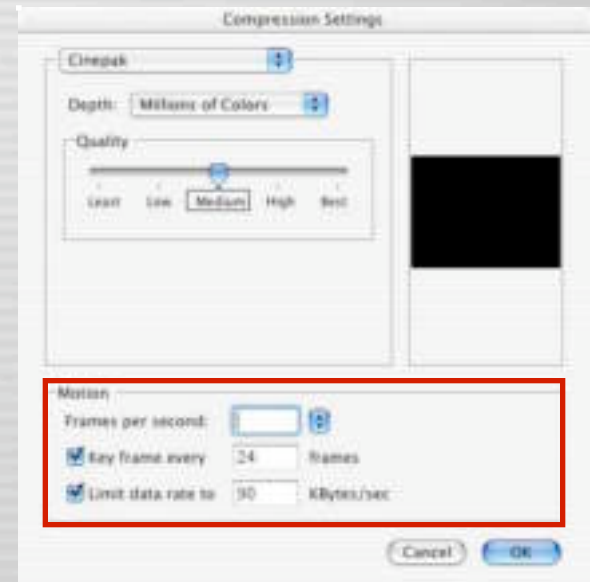
Export Tips – Video Settings

- Example of more options (if available)



Export Tips – Video Settings

- Frames per second
 - 8–20 jerky
 - 12, 15 – OK
 - 24 Hollywood movies
 - 29.97 NTSC
 - DEMO



Export Tips – Video Settings

- **Key Frames**

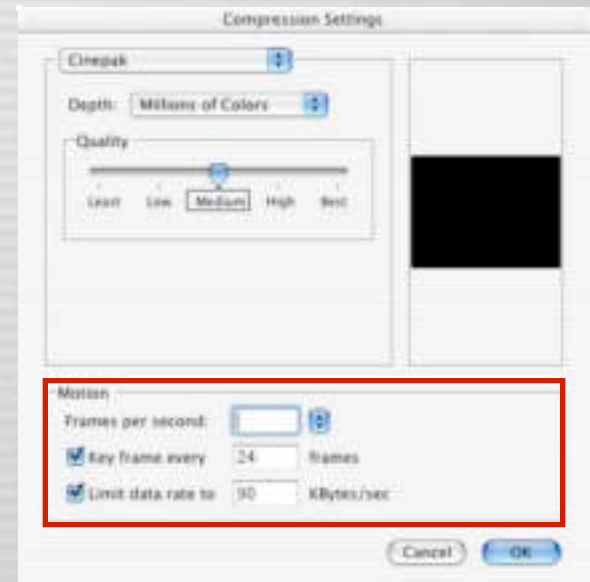
- **Low key frame value**

- Ok for talking head
 - Slow seek time

- **High key frame**

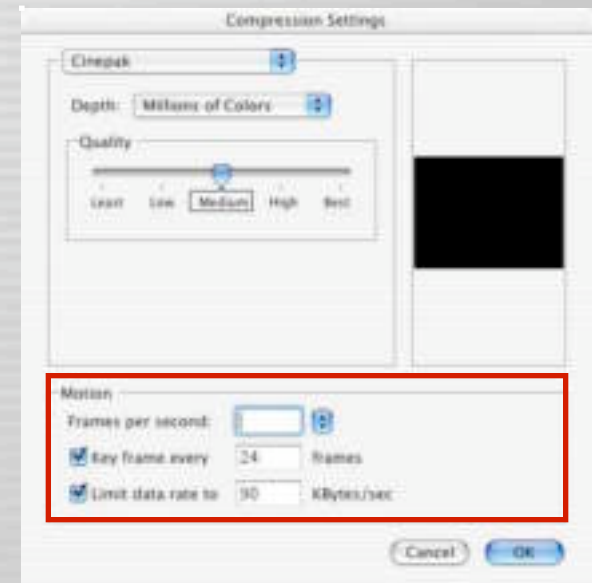
- Fast moving
 - Lots of scene changes

- **DEMO**



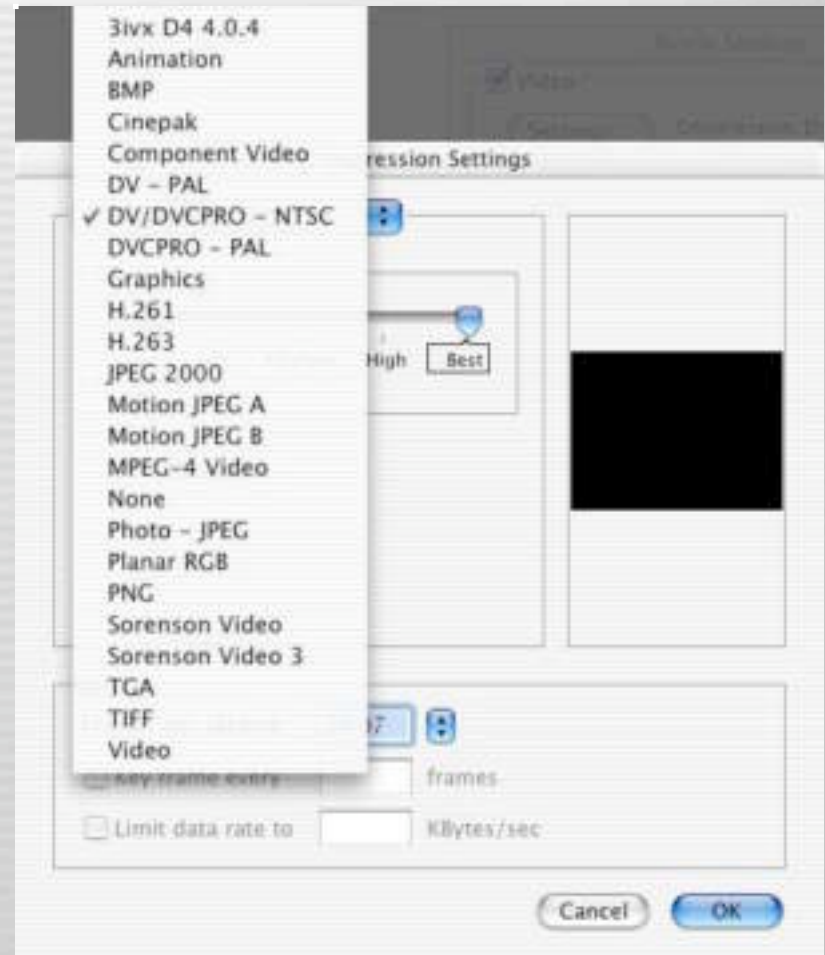
Export Tips – Video Settings

- Limit data rate
 - Web, 240 x 180 movie, 150 K/sec
 - 2x CD-ROM, 150–200 K/sec
 - 4x CD-ROM, 350–500 K/sec
 - 12x CD-ROM, 1.8 M/sec
 - 24x CD-ROM, 3–3.6 M/sec



Export Tips – Video Codecs

- Many codecs
- Compression/
decompression
- Most are old

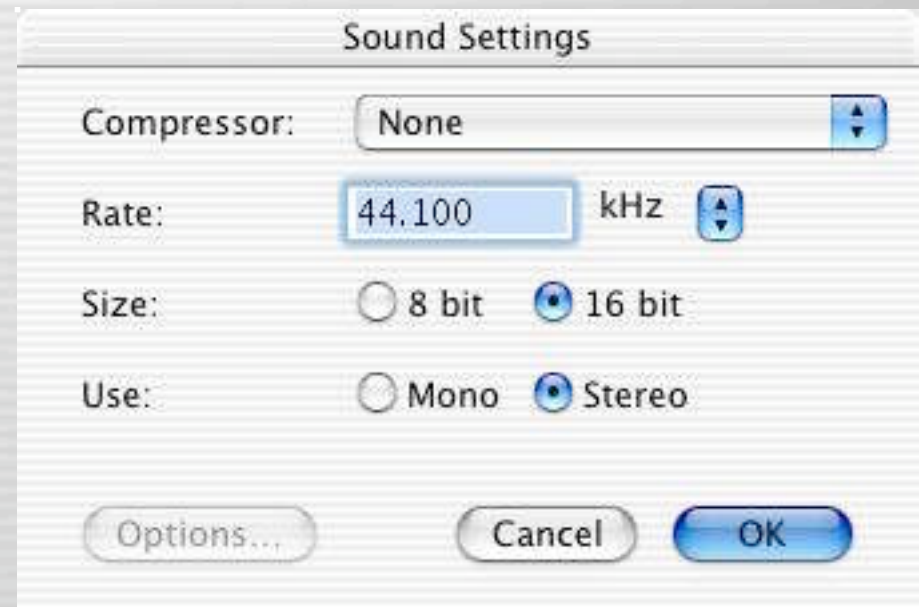


Export Tips – Video Codecs

- **Sorenson Video 3**
 - The best
 - Takes a long time
- **H.263**
 - Good for talking heads
- **Animation**
 - DV quality
 - Compresses only a little
- **Video**
 - Compresses fast, not too good, use to test

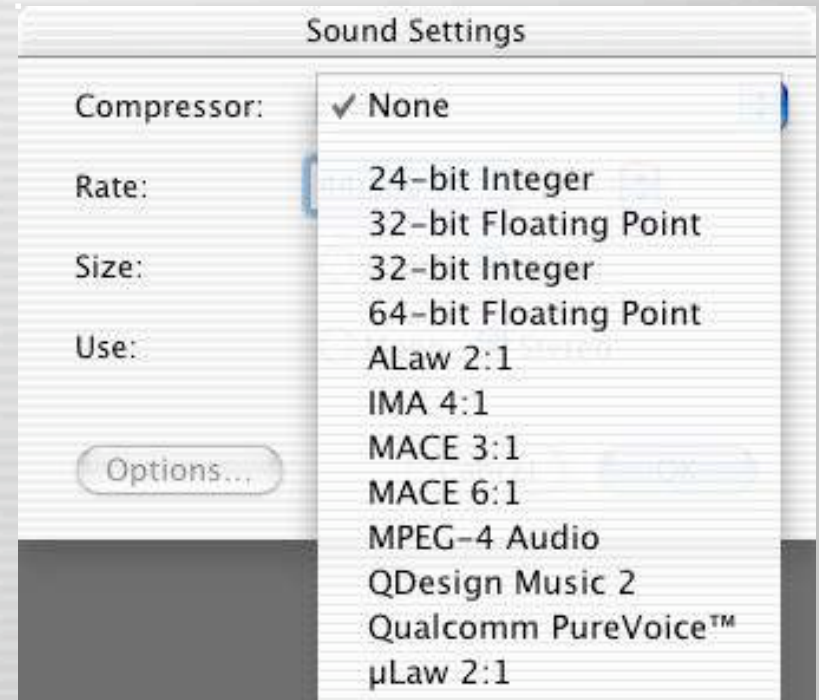
Export Tips – Audio Settings

- **Rate**
 - 44.1 CD
 - 48.0 DV Stream
- **Size**
 - 8 bit
 - Low quality
 - 16 bit
 - High quality
- **Use mono for web**



Export Tips – Audio Settings

- **Compressors**
 - Most are old
 - **MPEG-4**
 - The “new” best
 - **QDesign Music 2**
 - The “old” best
 - **Qualcomm PureVoice**
 - Good compression



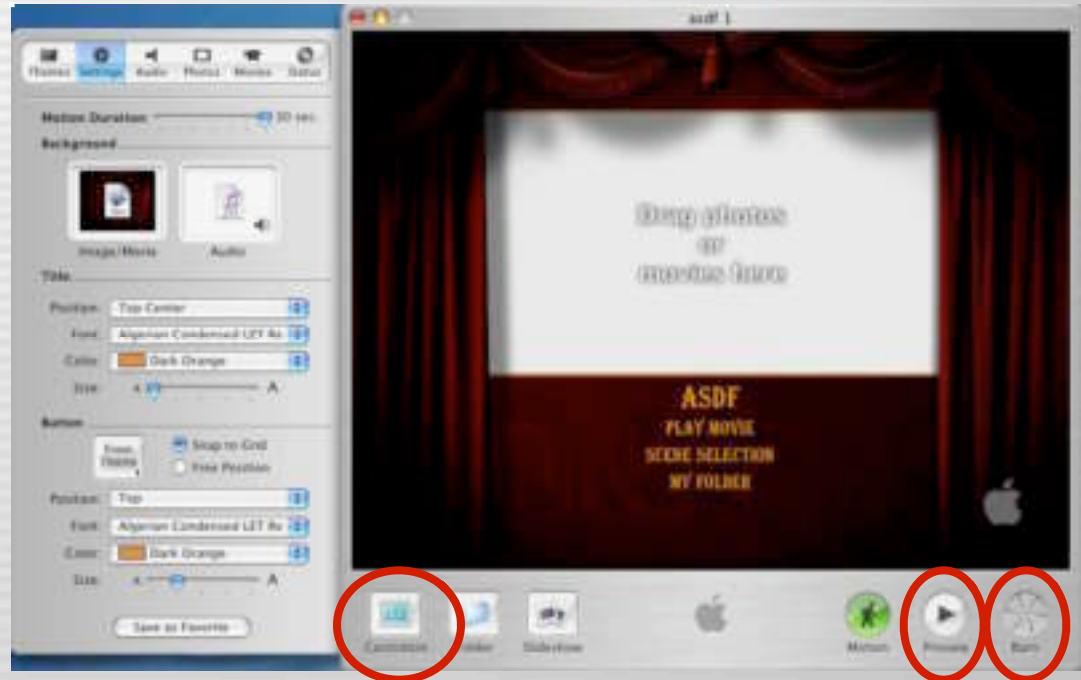
Export Tips – iDVD

- Must have iDVD 3
- Create chapters
- Click “Create iDVD Project”
- iDVD 3 will open



Export Tips – iDVD

- Click customize
 - Themes
 - Settings
 - Audio
 - Photos
 - Movies
 - Status
- Preview
- Click “Burn” when ready



Export Tips – Web Server

- **QTSS (QuickTime Streaming Server)**
 - Select “Streaming Web Movie”
 - Or select “Hinting”
 - Copy file to server
- **RealPlayer and Windows Media**
 - Convert QT movie to RealPlayer or WMP format
 - Not as easy
 - Quality not as good
 - Popular because of Windows marketshare, not quality

Export Tips – Web Server

- **HTTP server**
 - Put on any web server
 - Use ftp (Fetch or SFTP)
 - Use Finder’s “Connect To Server”
 - Add link to the file in a webpage
 - Or “embed” in a webpage
 -

Windows/Mac Embed Code

```
<object  
classid="clsid:02BF25D5-8C17-4B23-BC80-D3488ABDDC6B"  
width="160" height="144"  
codebase="http://www.apple.com/qtactivex/qtplugin.cab">  
<param name="src" value="sample.mov">  
<param name="autoplay" value="true">  
<param name="controller" value="false">  
<embed src="sample.mov" width="160" height="144"  
autoplay="true" controller="false"  
pluginspace="http://www.apple.com/quicktime/download/">  
</embed>  
</object>
```

Mac Only Code

```
<embed src="sample.mov" width="160" height="144"  
autoplay="true" controller="false"  
pluginspace="http://www.apple.com/quicktime/download/">  
</embed>
```

Ideas – Time lapse

- **How to create time-lapse video**
 - **Speed clip up (5x is the max in iMovie)**
 - **Export to camcorder**
 - **Import back to computer**
 - **Repeat**

Ideas – Reverse clip

- **Why reverse clip direction?**
 - **Comic**
 - **Subtle effects**
 - **Blink of an eye**
 - **DEMO**
 - **Reverse a pan or zoom**

Free stuff

- **Video files**
 - Search for “public domain video”
- **Audio files**
 - FreePlay (.Mac)
 - Search for “Open Source Music”
 - See Apple’s iMovie webpage

Free stuff

- **iMovie transitions**
 - See Apple's iMovie webpage
- **More compression codecs**
 - 3ivx (MPEG-4)
 - Toast VCD
 - Must use iDVD or FCP for MPEG-2

Next class...

- This series will be taught again next semester

This info on the web

- <http://www.macos.utah.edu>
- Click on “Documentation”
- Click on “Digital video”

Contact

- Web – www.macos.utah.edu
- Email – mac@scl.utah.edu

