### Sal's Session Is Next Door

(Jason's session is here)











# Apple Does Video

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### **Apple Does Video**

- Apple devices that play video: All Macs, iPod Classic, iPod Nano, iPod Touch, iPhone, iPad, Apple TV...
- Convert DVDs for your iPod/iPhone/Apple TV
- Convert files in other video formats



#### **Video Basics**

- SDTV = 640 x 480, 30 frames per second (fps) (slightly different in some parts of world)
- HDTV = more than SDTV, but varies
  - common formats: 1280 x 720 ("720p"), 1920 x 1080 ("1080i/p")

### **Apple Video Playback**

- iPod/iPhone can't display SDTV resolutions. Can output to SDTV resolution.
- iPad displays > SDTV (1027 x 768), can play 720p video @ 30fps. Can output SD video.
- Apple TV capable of HDTV output, but less powerful than iPad (720p @ 24fps)



### **Video Formats**



Cars.m4v

### So many formats...

- Why do we have to care about file formats?
  - Device compatibility
  - Quality



#### MPEG-4

- Can contain a variety of audio and video formats
  - Generic MPEG-4 (Simple Profile)
  - H.264 (Preferred by Apple)
- This is the format you need if you want things to play back on iPod, iPhone, iPad, and Apple TV
- But just getting an MPEG-4 isn't enough: resolution and bit rate also matter



#### **Other Formats**

- DIVX/XVID
- AVI (container format)
- WMA
- Real
- MKV
- The good news is, tools exist to convert these files easily to MPEG-4
- Native Mac playback tools available, too



### Video Playback



#### **Video on Macs**

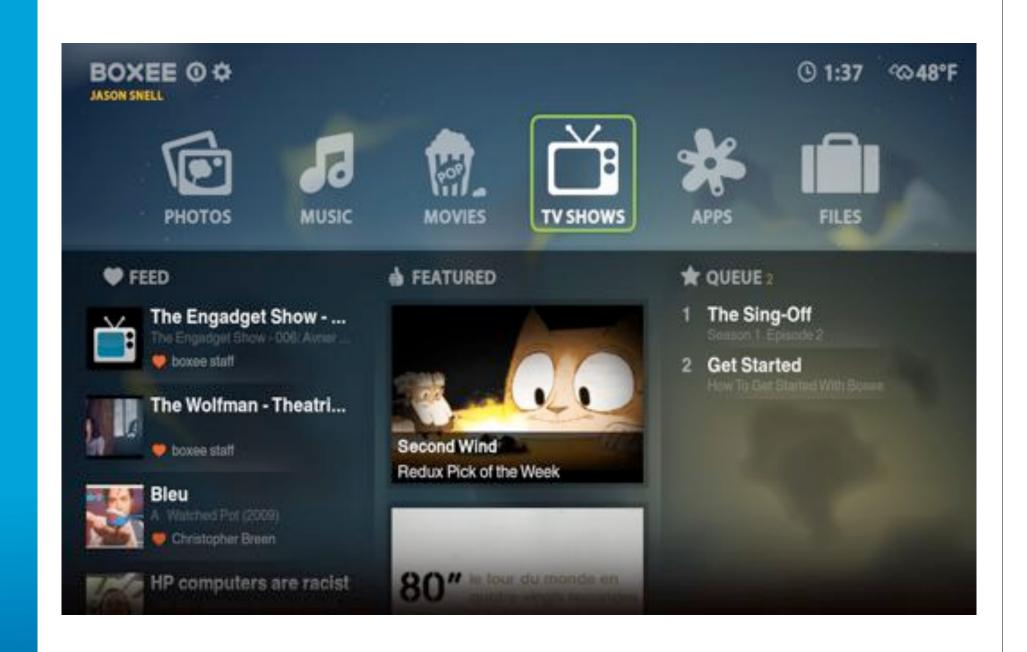
- Mac display always higher resolution than any video source except HD
- DVD playback, no native Blu-Ray support
- iTunes/QuickTime good for MPEG-4
- Add-on codecs can bring QuickTime compatibility for other formats (Windows Media, DIVX/XVID)
- Mplayer, VLC play just about anything



#### Macs attached to TVs

- Front Row
- Boxee
- Video adapters required
- Overscan setting
- Remotes Apple remote, Screen Sharing, iPhone/iPod touch apps





#### Video on iPods\*

- All video-playing iPods\* display native resolution of 320 x 240 pixels (1/4 SD)
- Via video-out cable, 640 x 480 pixels (SD)
- Formats supported:
  - H.264 up to 2.5 Mbps, 640x480, 30fps at "Baseline Profile up to Level 3.0"
  - MPEG-4 up to 2.5 Mbps, 640x480, 30fps, "Simple Profile"

\* Except iPod Touch



#### Video on iPhone & iPod Touch

- iPhone and iPod touch play video at native resolution of 480 x 320
- Via video out, they can support 640 x 480
- Same video specs as other iPods (though quirks may remain; we've seen some files that play on one and not another)

### Video on Apple TV

- Plays back on TVs via HDMI or component video
- Formats supported:
  - H.264 up to 5 Mbps, Progressive Main Profile
    - 1280 x 720 @ 24fps
    - 960 x 540 @ 30fps
  - MPEG-4 up to 3Mbps, Simple Profile
    - 720 x 432 @ 30fps

#### Video on iPad

- Most advanced non-Mac device from Apple
- Plays back 720p 30fps H.264 video higher supported specs than AppleTV! (But can't display full HD due to 4:3 aspect ratio)
- VGA adapter does 1024 x 768
- Component/composite do 576p/i and 480p/i



### **Video Conversion**

### Is it Legal? Is it Ethical?



- DMCA says writing software to circumvent copy protection is illegal
- MPAA claims that using the software is also illegal, but the law is extremely murky
- If you're converting files you own from DVD, you seem ethically solid
- Make up your own mind about what you're comfortable with



### **Converting DVDs**

- HandBrake/VLC is the tool of choice
- Free download from handbrake.fr, videolan.org
- Know your destination(s) / use the presets
- Apple TV users will need to compromise for mobile devices or keep two versions of everything!
- RipIt (thelittleappfactory.com/ripit/), \$20



### **Converting Other Files**

- QuickTime movies, Internet downloads, etc.
- VisualHub was my tool of choice, but it's been abandoned
- VideoMonkey looks promising, does meta tagging and batch processing
- But I'm basically using HandBrake for everything

### **Meta Tagging**

- Get your files ready for iTunes, Apple TV, iPod interfaces
- Video Monkey will do it all
- Lostify
- Parsley Is Atomically Delicious
- MetaX (kerstetter.net)











## **Thank You!**

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