

# Supersize Session



What is the Value  
Proposition to the  
Viewer?



# Value Proposition for Premium Auditoriums

## Premium Experience

### Pay More = Get more

- More Light
- “More-Better” 3D images
- More Resolution

## Brighter gives audience:

- **Better color**
  - Mesopic vision starts around 1 fL
  - Color saturation improved
- **Better perception of contrast**
  - Ratio of intensity of “white” luminance to “black” luminance increases
  - Opportunity to have brighter highlights
- **Increased “Life” to the picture**
- **3D brightness a key issue**
- **Is there a limit to useful brightness?**

# True Grit Clips

**Theatrical master at 14 fL**

**Color timed and projected at 21 fL**

**Color timed and projected at 28 fL**

**Play clips**

## “Shot doesn’t feel right”

- **Retinal Rivalry**

- Presentation of unusual differences in left and right images – e.g.
  - **Color differences**
  - **Vertical disparity**
  - **Breaking the frame**
  - **Too much disparity**
  - **Specular differences**

- **Incorrect depth**

- Flat cutouts – conversion or backgrounds

# Measuring Perfection

Very interesting tools and study by MSU presented at SD&A 2 weeks ago.

- Found some unusual things



## Methodology for Stereoscopic Motion-Picture Quality Assessment

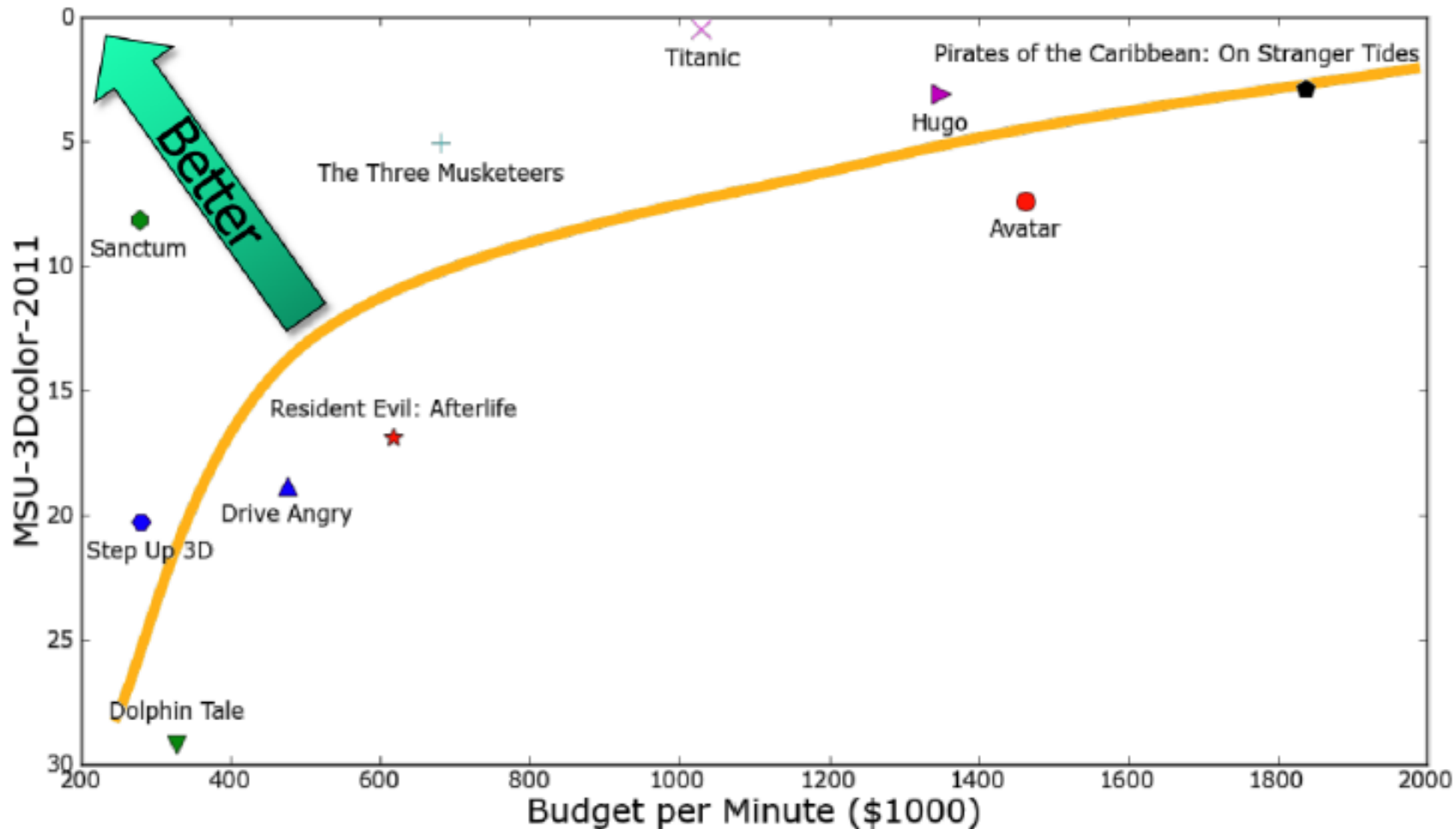
The work is partially supported by the Intel/Cisco Video Aware Wireless Network (VAWN) Program

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# Color Mismatch & Movie Budget



# Illustration of 3D problems

**6 slides illustrating L-R inconsistency in released 3D content.**

- **Sharpness mismatch**
- **Flat objects**
- **Missing details**

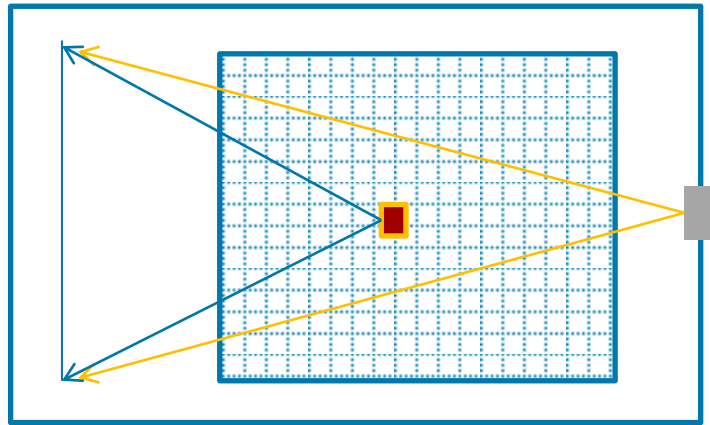
**Slides deleted due to copyright considerations.**



## Premium usually means

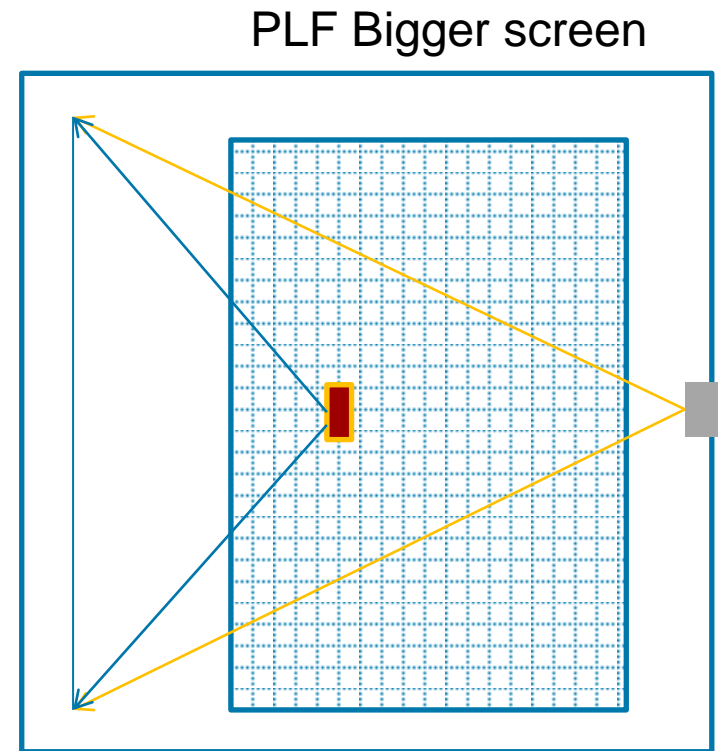
- **Larger Image**
- **Closer to screen**
  - Pixels look larger
  - Artifacts are larger
  - Harder to hide

# PLF = bigger screen, closer seating



Conventional  
2 PH viewing

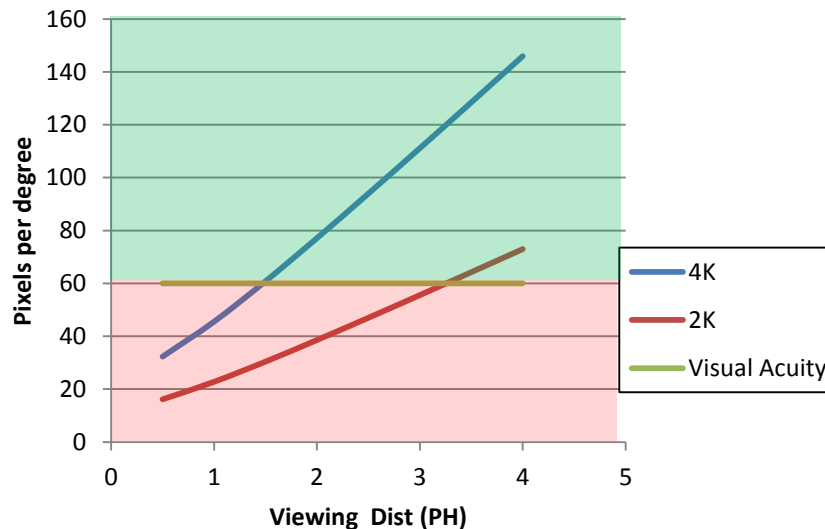
Sitting relatively closer  
Wider angle on screen



# Pixel Density

- **Visual Acuity**
  - 30 cycles/degree = 60 pixels/degree
- **“retina display”**
  - loosely defined as 46 cycles/degree

Viewing Distance vs  
Pixels per degree for  
2K and 4K presentations



**Garrett.....**