



**EVENT  
LEADERSHIP  
INSTITUTE**

Technical Meeting & Event Production

Introductions all Around

# Who am I?

## Brandt Krueger

- Almost 20 years in the meetings and events industry
- Technology focused





# Who am I?

## Brandt Krueger

- Almost 20 years in the meetings and events industry
- Technology focused
- Unique perspective



Who are you?



# A Non-Technical Approach

# A Non-Technical Approach

Learn to Ask the Right Questions

Models & Brand Names Change

Underlying Technology Stays the Same

# Assessments & Certification

# Assessments & Certification

Assessments

Assessment grading

Final Assessment

- Online
- Proctored
- 85% to Pass

Digital Certification



# A Non-Technical Approach to Thinking About AV

Don't get caught up in the techno-babble

Learn to ask the right questions

Don't forget to ask *me* questions:

[questions@brandtkrueger.com](mailto:questions@brandtkrueger.com)

[@brandtkrueger](https://www.instagram.com/brandtkrueger)

[plus.google.com/+brandtkrueger](https://plus.google.com/+brandtkrueger)

So let's get started!

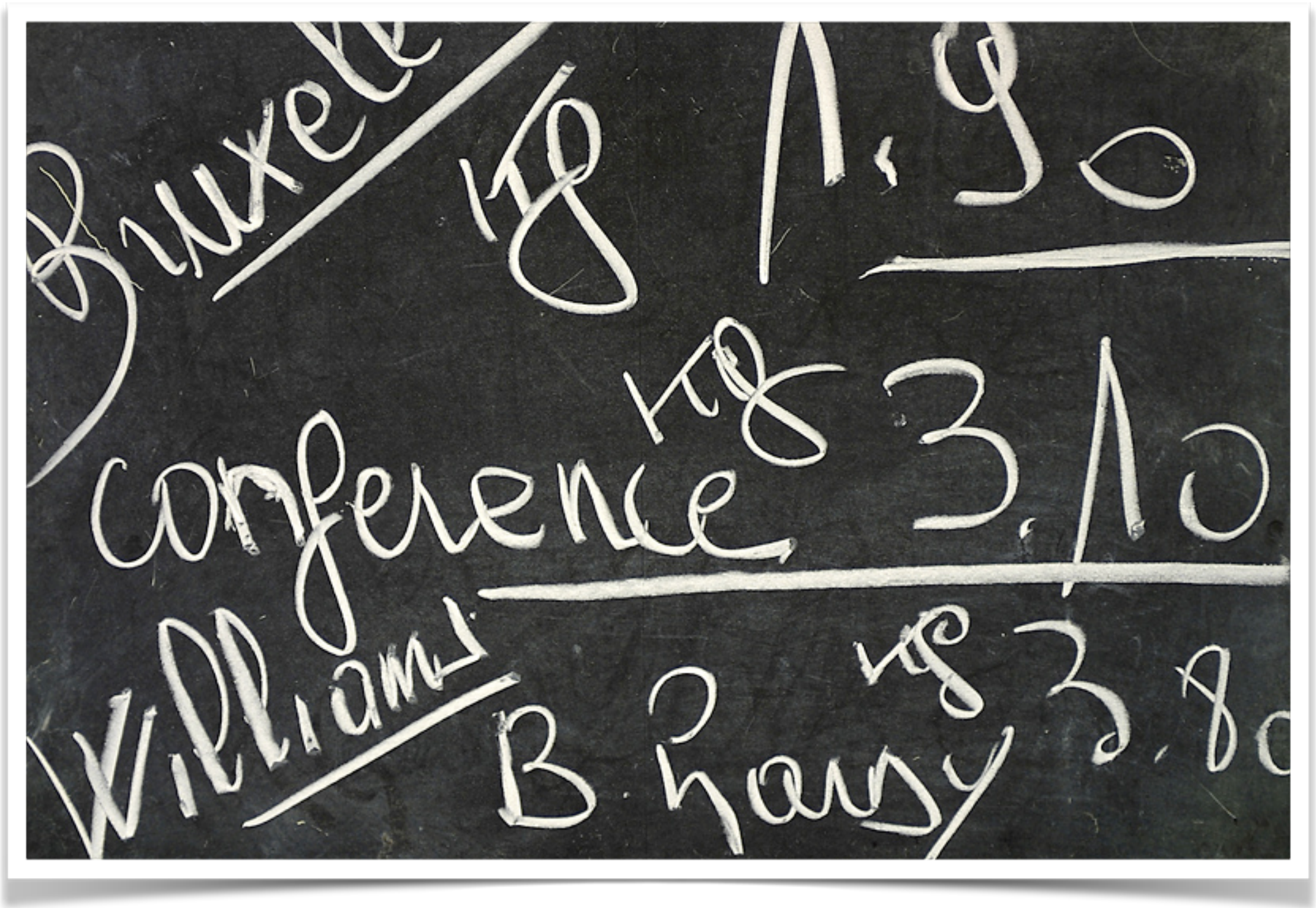




Week One: Lesson One

Presentation Software, Playback  
Hardware and Software

# Visual Content

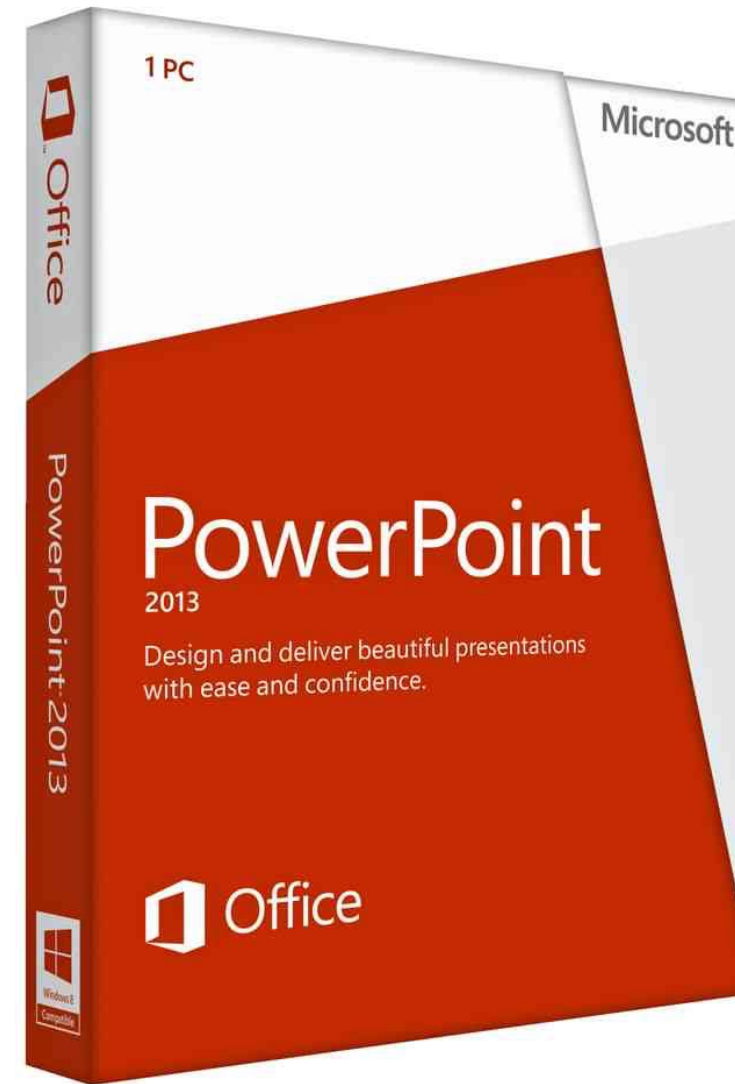


# Visual Content

- Presentation Software
- Video Playback
- Camera (IMAG)

# Presentation Software

## PowerPoint



# Presentation Software

## Keynote

Coming on strong  
The “iPhone” effect



# Presentation Software

## Prezi

- Web based



— BREAKING NEWS —

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# BUSINESS

... 30 MILLION PRESENTATIONS / DAY ...

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# Presentation Software

## Prezi

- Web based



# Presentation Software

## Online-based Presentation Software

- SlideShare
- Google Presentations
- SlideRocket
- Zoho Show
- PreZentit
- Sway (by Microsoft)

# Software

ATTENTION-  
KEYWORD

"Quote from  
the founder  
explaining  
why this  
matters."

# Presentation Software

## Tablets

- Powerpoint, Keynote, and Prezi
- Haiku Deck
- Whiteboarding Apps

# Presentation Software

## Connector cables



# Connector Cables



# VGA Port



# Display Adapters

“What type of display output would you prefer?”

- VGA
- DVI
- HDMI



# Visual Content

Do you have any video in your presentation?

- Embedded Content
- Hardware Playback
- Software Playback

# Embedded Content

- Easy for most users to do
- Can go horribly wrong
- May require Internet connection

# Embedded content

- Easy for most users to do
- Can go horribly wrong
- May require Internet connection

# Hardware Playback

- DVD Player
- Hardware based DDR
  - VTR
  - DVR



DDR



Save + - Duplicate Locate Move Up Move Down Log

Close Fullscreen

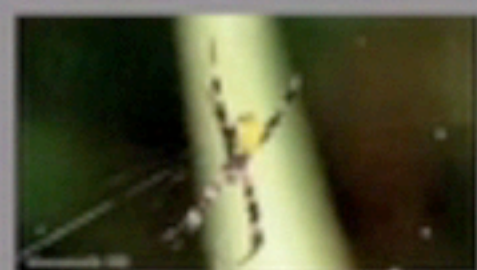
	#	Title	Comment	Section	TRT	Link	Delay	Loop
Take	9	Systems Overview	Kate Chang		00:01:35	<input type="checkbox"/>	..	<input type="checkbox"/>
Take	10	Second Quarter Expectations	Phil Jackson		00:04:10	<input type="checkbox"/>	..	<input type="checkbox"/>
Take	11	Walkout to Lunch Break	Loop		00:04:36	<input type="checkbox"/>	..	<input type="checkbox"/>
Take	12	Walk-in from Lunch	Montage		00:00:18	<input type="checkbox"/>	..	<input type="checkbox"/>
Take	13	Advisory Panel	Dean/Hansen		00:00:41	<input type="checkbox"/>	..	<input type="checkbox"/>
Take	14	Roundtable Discussion	Miguel Sanchez		00:00:07	<input type="checkbox"/>	..	<input type="checkbox"/>
Take		2012 and Beyond			00:02:19	<input type="checkbox"/>	..	<input type="checkbox"/>
Take		Expansion			00:05:21	<input checked="" type="checkbox"/>	..	<input type="checkbox"/>
Take	15	Scientific Forum	Diana McPherson		00:00:16	<input type="checkbox"/>	..	<input type="checkbox"/>

## Preview

Main

Geometry

Levels



Expansion

00:05:21

Fade In LOOP  Zero : Fade Out

00:00:00:00 00:05:21:11 00:00:00:00

Set In Set Out Set Slate

Goto In Goto Out

/Volumes/Media Files/Show Content/Expansion.mov

||<< |<| || > |>| >>||

-8x -2x -1x <> 1x 2x 8x



## Preview

00:00:00 - 00:05:21



Mammoth HD

Expansion

↑ Clear (↵) ↓

Take (return)

Delay (D)

:

## Program

Setup

10 sec 20 sec 30 sec

Loop Temp

End All (esc)

# Section Review

- It's not about the model numbers
- Learn about the fundamental systems of AV
- Learn to ask the right questions
- Type of Presentation Software
  - Keynote / Powerpoint / Prezi / Online
- Dongles and Ports- VGA / DVI / HDMI
- Hardware and Software Playback- DDRs
  - PlaybackPro



Week One: Lesson Two

Lumens and Lenses

# Display Technology

## Most Common Types of Displays

- Projection
- Flat Screen Monitors

# Projection - Lumens

## Lumens

- A physical measurement of projector brightness
- ANSI- American National Standards Institute
- How many do we need?
  - Size of the room
  - Distance from screen / size of screen
  - Brightness of room

# Projector Lumen Comparison

- Breakout room - 1,500-5,000 lm
- Medium room - 5,000-10,000 lm
- Grand Ballroom - 10,000-20,000 lm
- Need more? Get a Technical Director

# Projection - Lumens

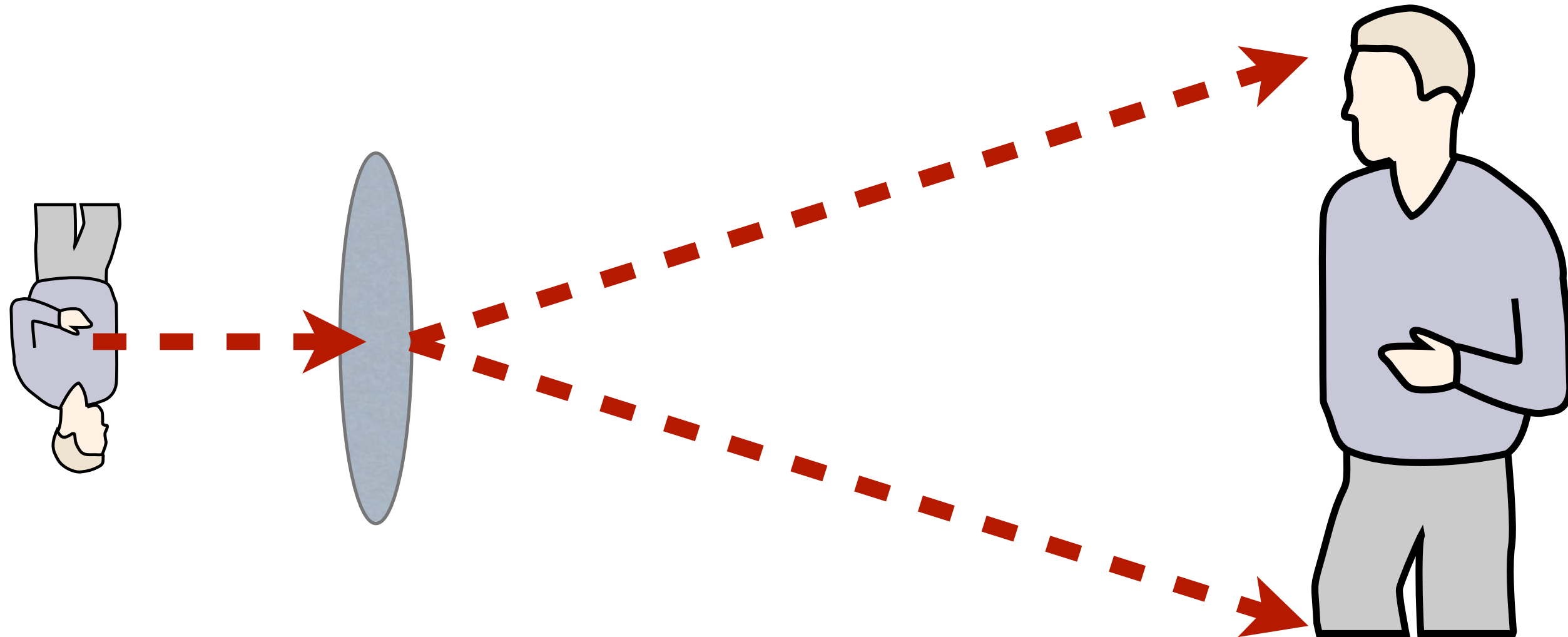
~~“How many lumens do I need?”~~

5,000 Lumen Projector

\$ → \$\$\$

# Projection - Lenses

## Lenses



# Projection - Lenses

## Lenses

- Fixed
  - Standard (around 16')
  - Short throw
- Interchangeable
  - Short
  - Medium
  - Semi-Long, Long, Ultra-long throw



# Projection - Lumens and Lenses

## Lumens and Lenses

- Lumens = Brightness
- Lenses affect optimum throw distance
- Massive budget swings
  - 20k and above lumens
  - Short and long throw lenses



Week One: Lesson Three

Projector Types, Stacking,  
Backups, and Accessories

# Projection - Types

## LCD vs. DLP

- DLP
  - Smoke and Mirrors
- LCD
  - Liquid Crystal Display

# Projection - Types

## LCD vs. DLP

- DLP
  - Smoke and Mirrors
  - Good color, low contrast
- LCD
  - Liquid Crystal Display
  - ~~OK color~~ better contrast

# Projection - Types

## LCD vs. DLP

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## Sony 3LCD Laser



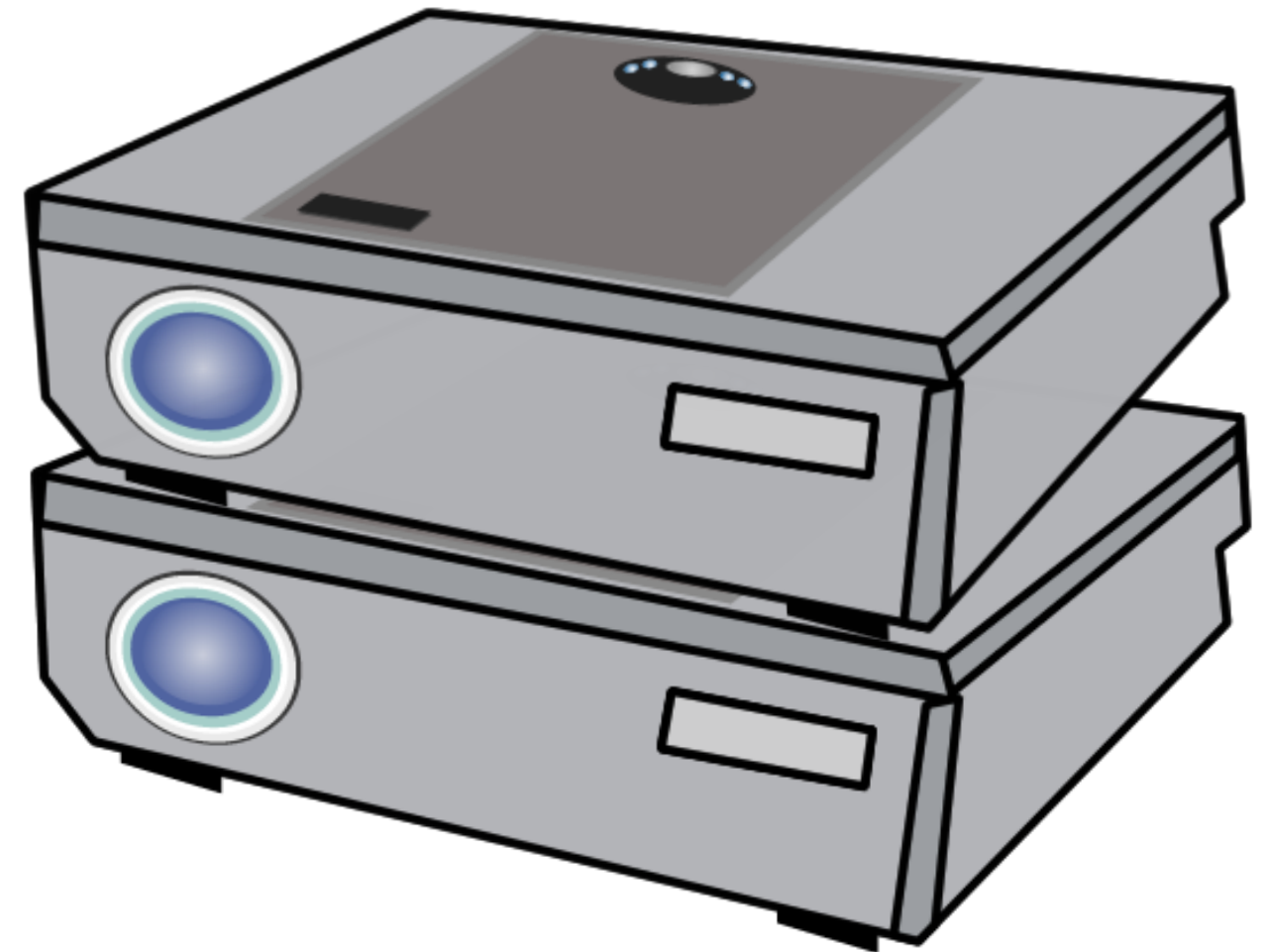
# Projection - Screens

## Front vs. rear projection

- Space available
- Brightness of the room
- Compensate for lower lumens?

# Projection - Stacking

- Array of projectors
- Perfectly aligned images
- Combined brightness  
(1.5x, not 2x)



# Projection

## Backup Projection

- Projector Stacking (Running Spares)
- The Controversial Cost of Backups
  - Stacked Backup
  - Cased Backup

# Projection

## Backup Projection

- Projector Stacking (Running Spares)
- The Controversial Cost of Backups
  - Stacked Backup
  - Cased Backup



# Projection

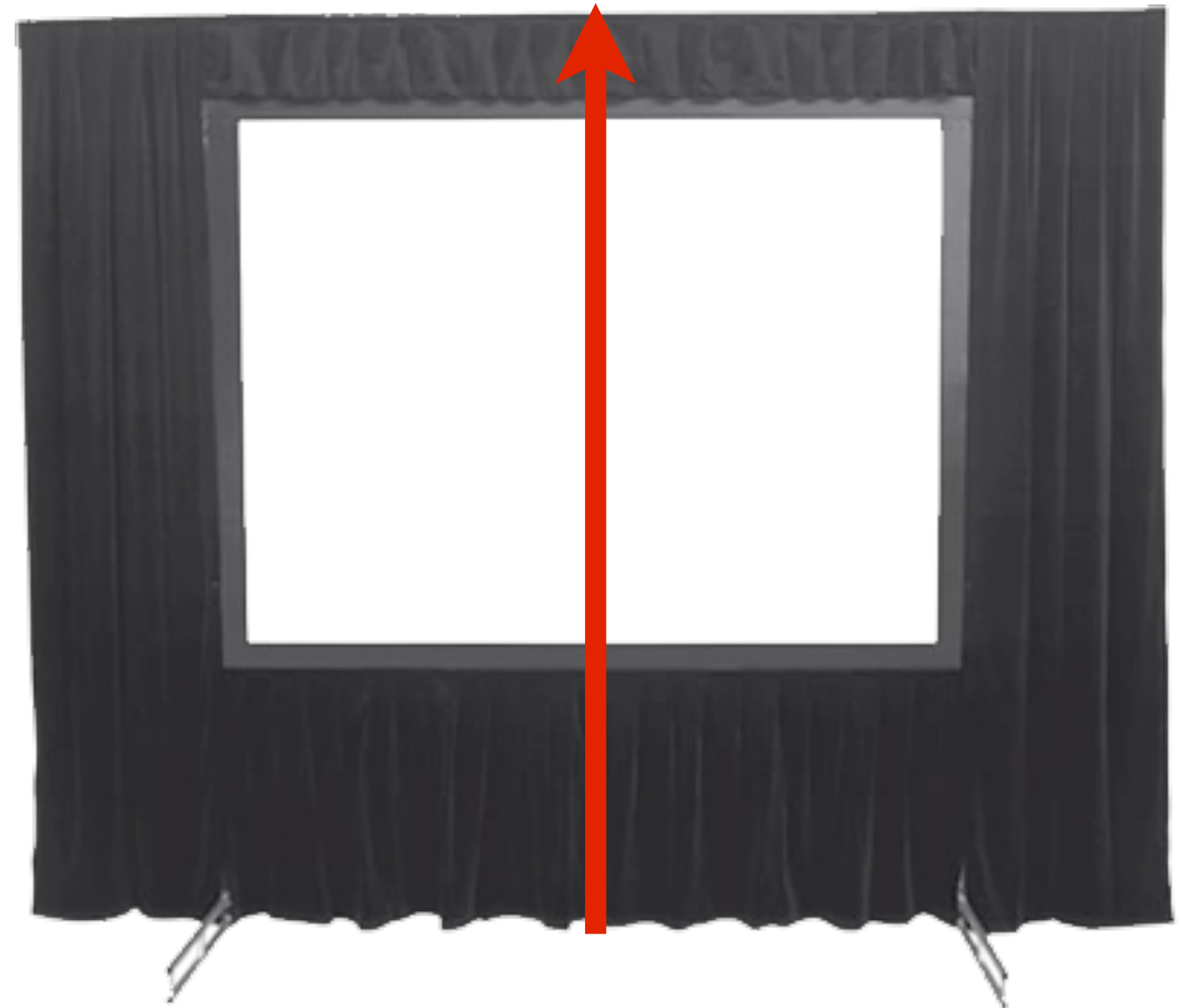
Screens & Dress Kits  
Pipe and Drape



# Projection

Screens & Dress Kits  
Pipe and Drape

Check ceiling height

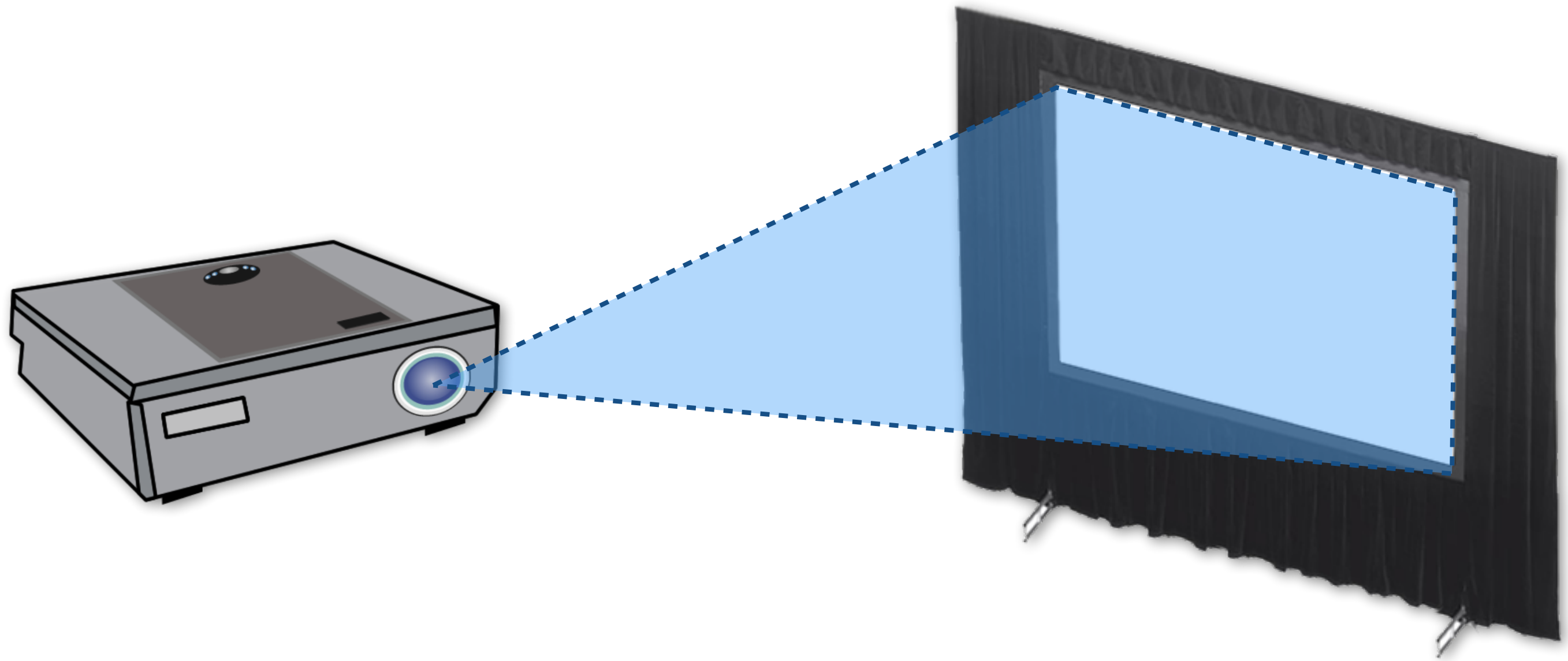




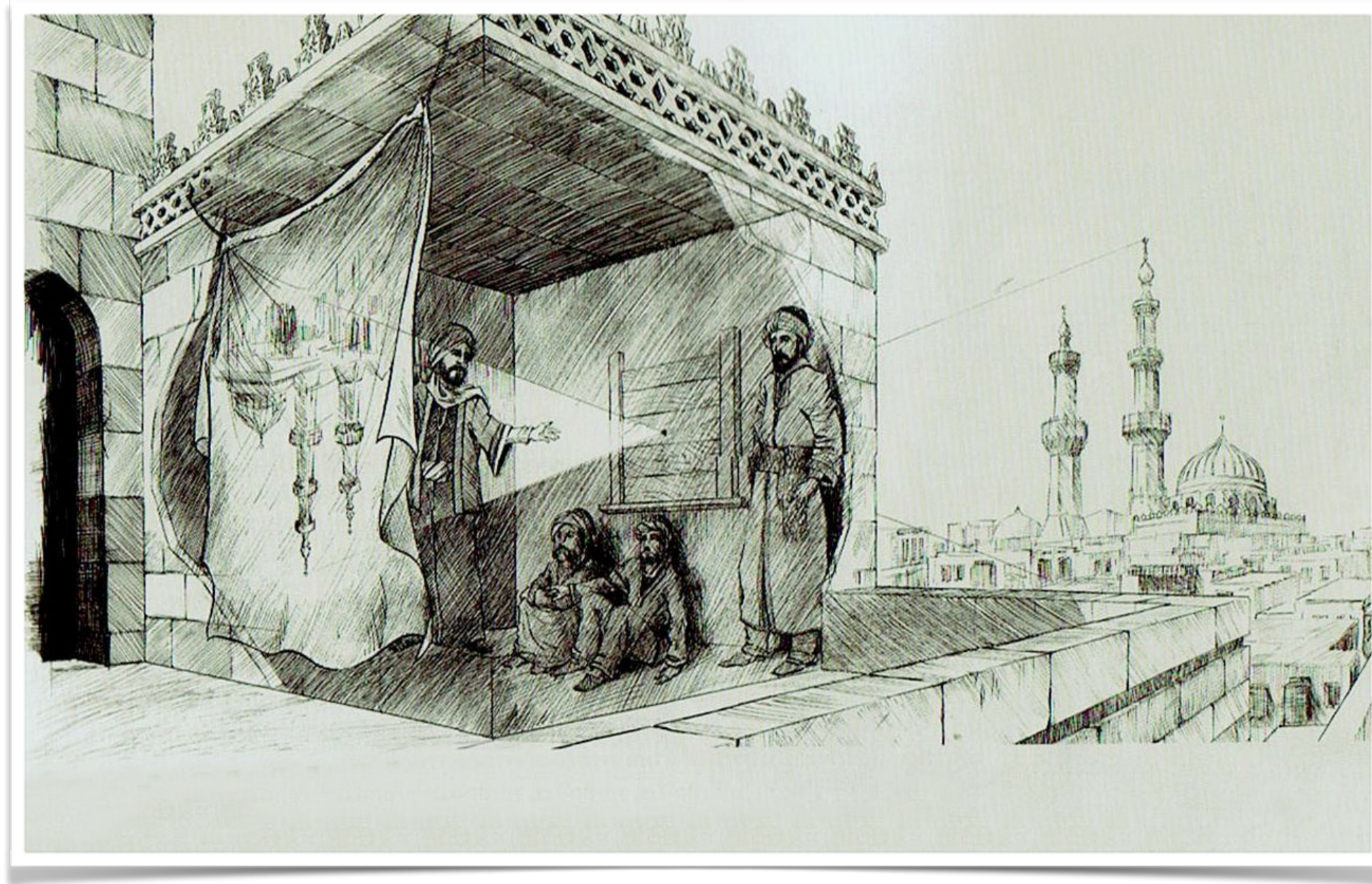
Week One: Lesson Four

Projection Mapping

# What is projection Mapping?



# A Little History



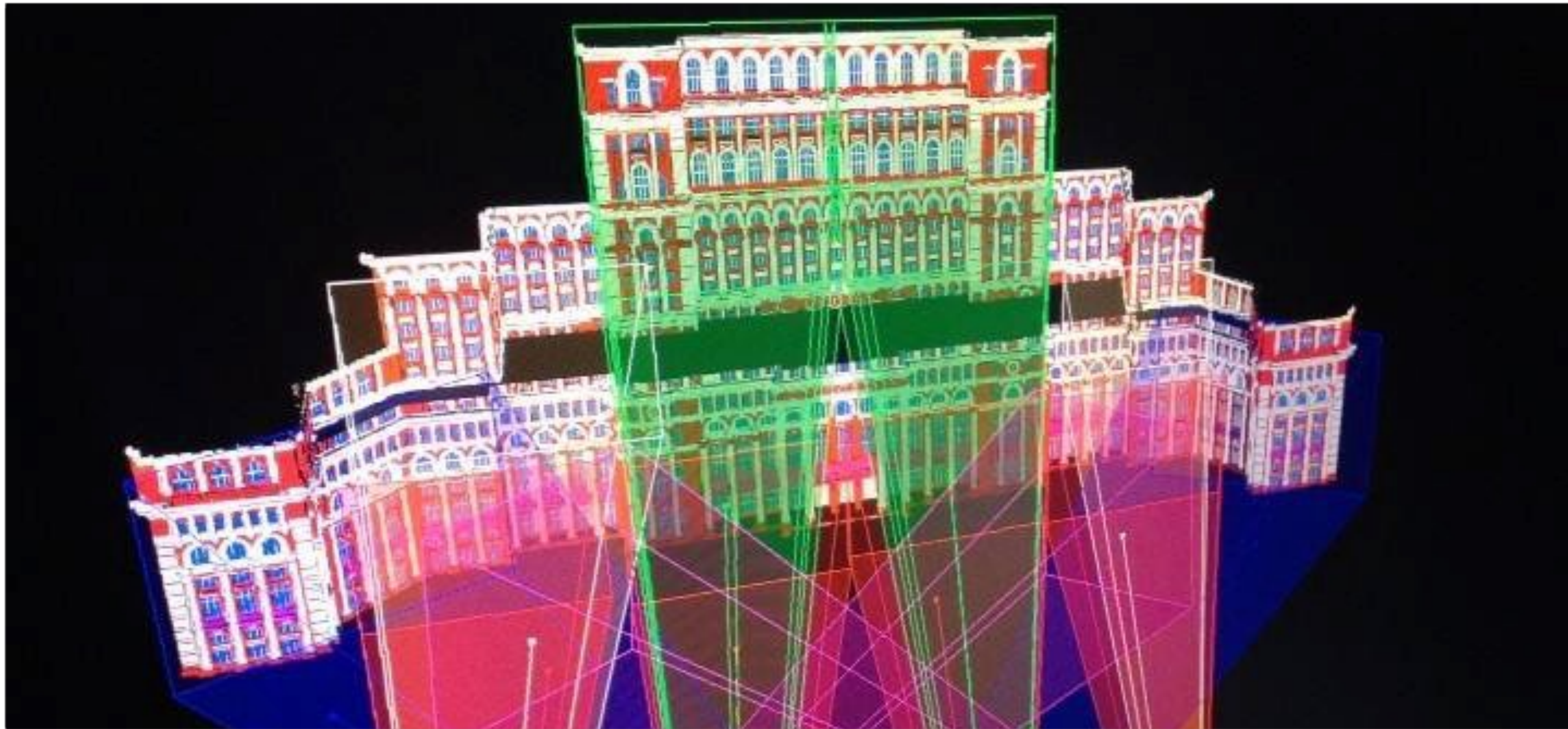
# A Little History



## Disney's Haunted Mansion

# A Little History

# Modern Examples: Things Get Real



# Modern Examples: Things Get Real

# Modern Examples: Things Get Real

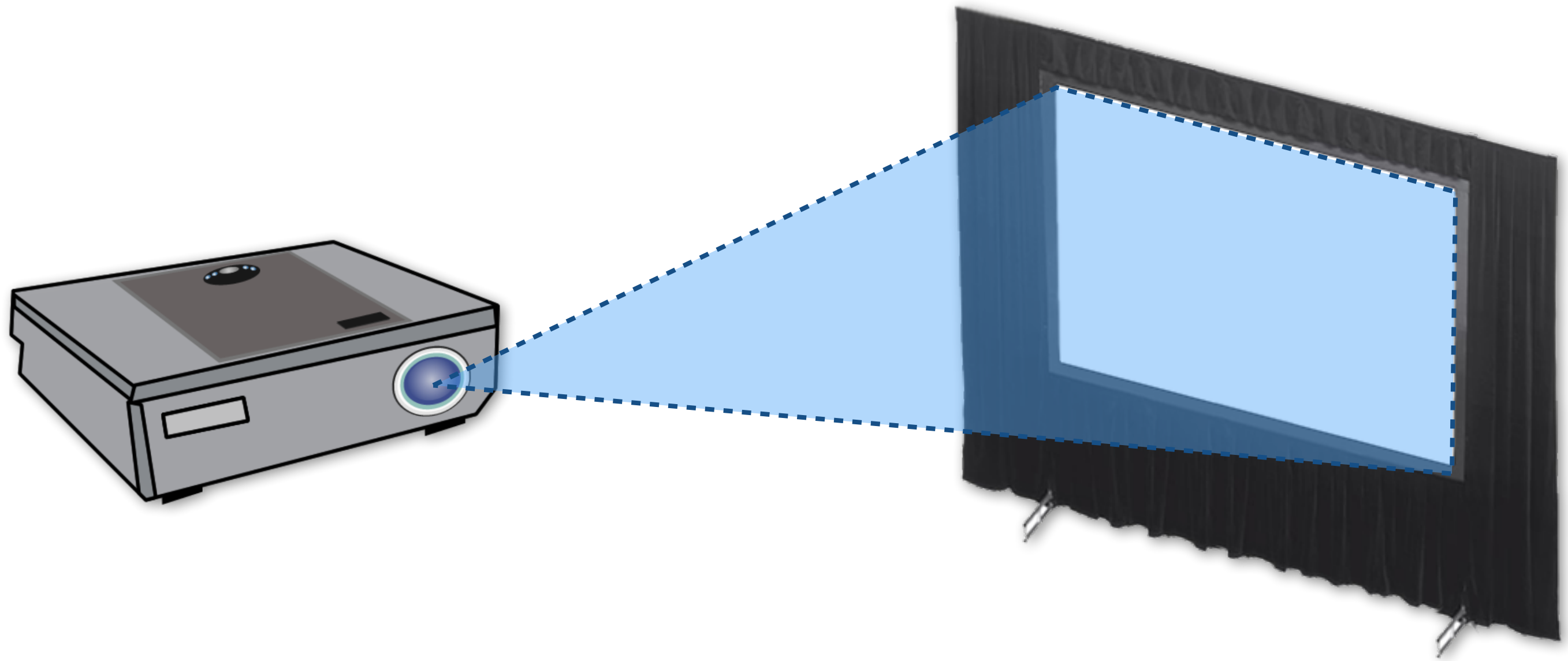
**YIKES.**

# Concerns about Budget

- Looks expensive...
- Can be, but doesn't have to be

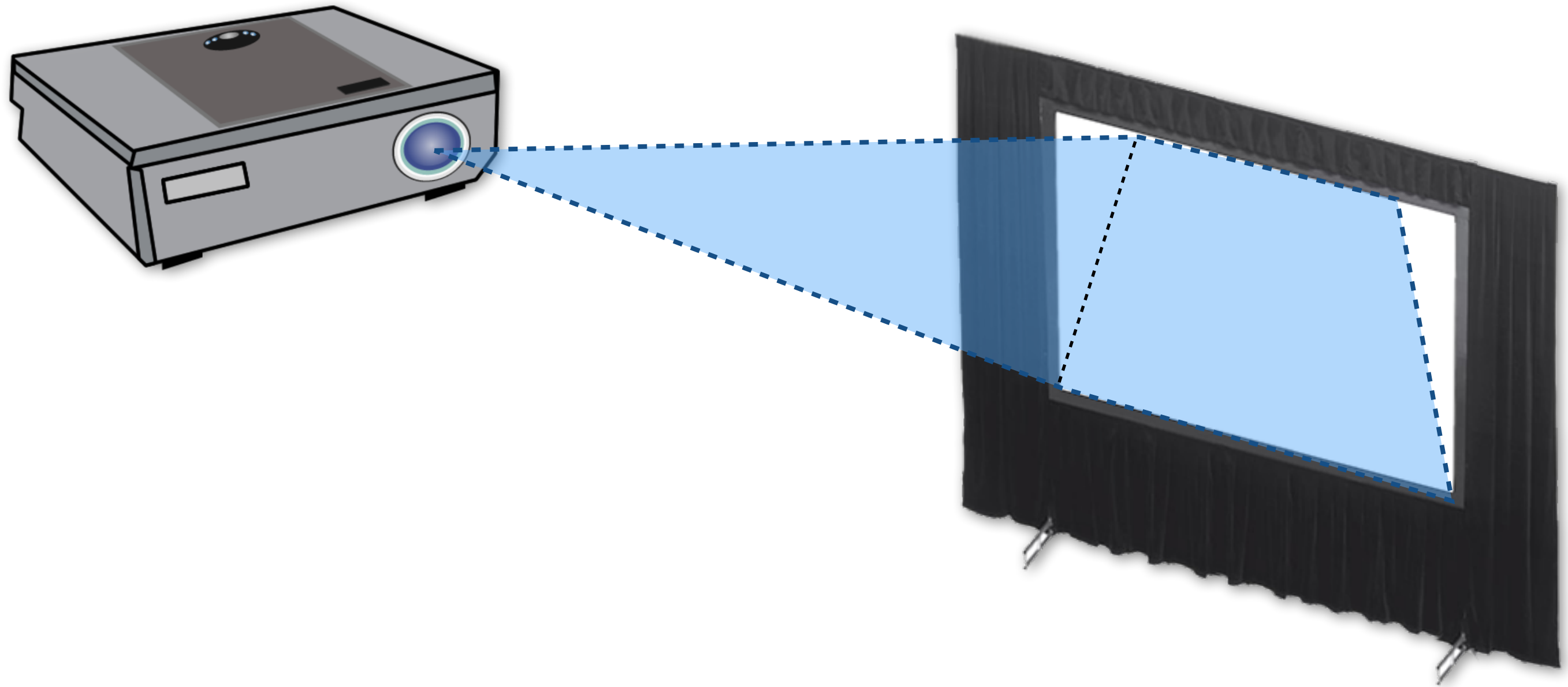
But First...

# How does projection mapping work?



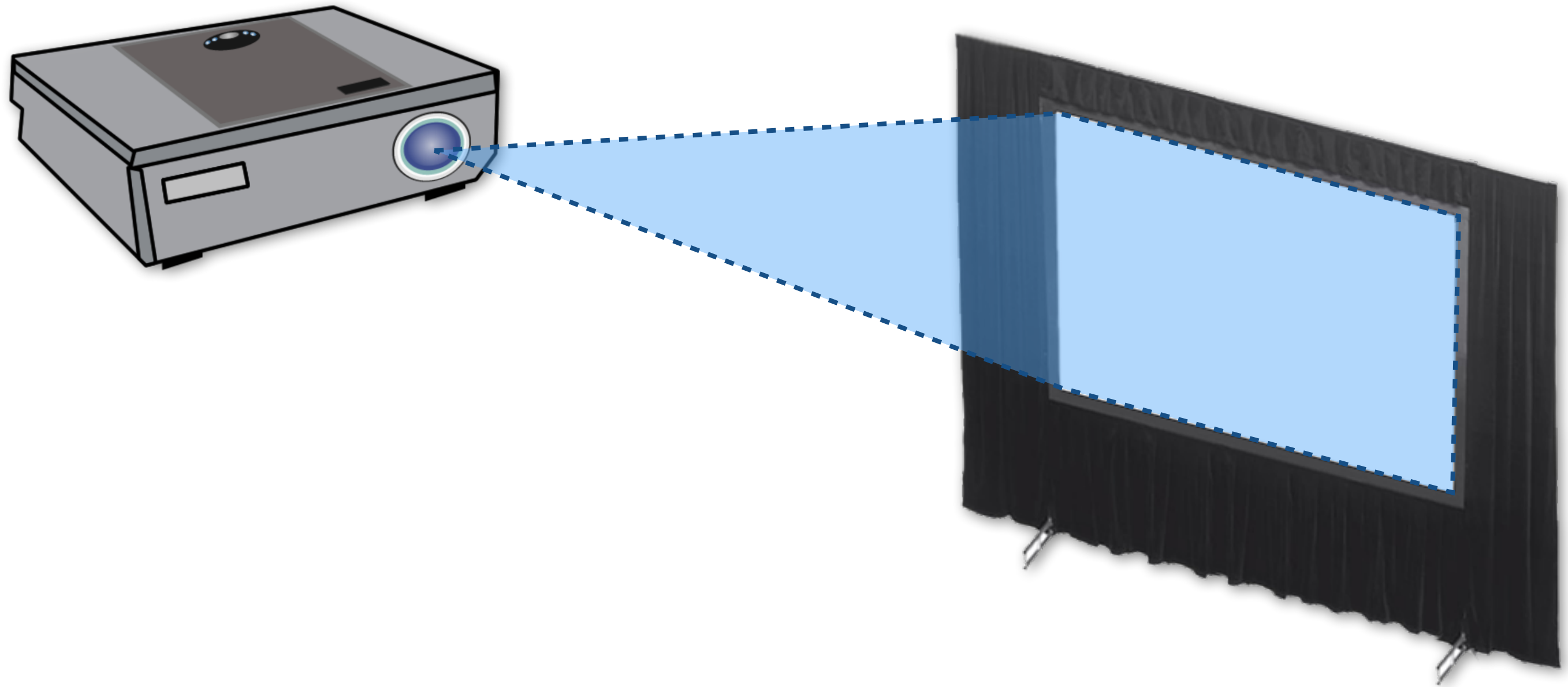
Flat projection

# How does projection mapping work?



## Perspective Adjustment (Keystoning)

# How does projection mapping work?



## Perspective Adjustment (Keystoning)

# How does projection mapping work?

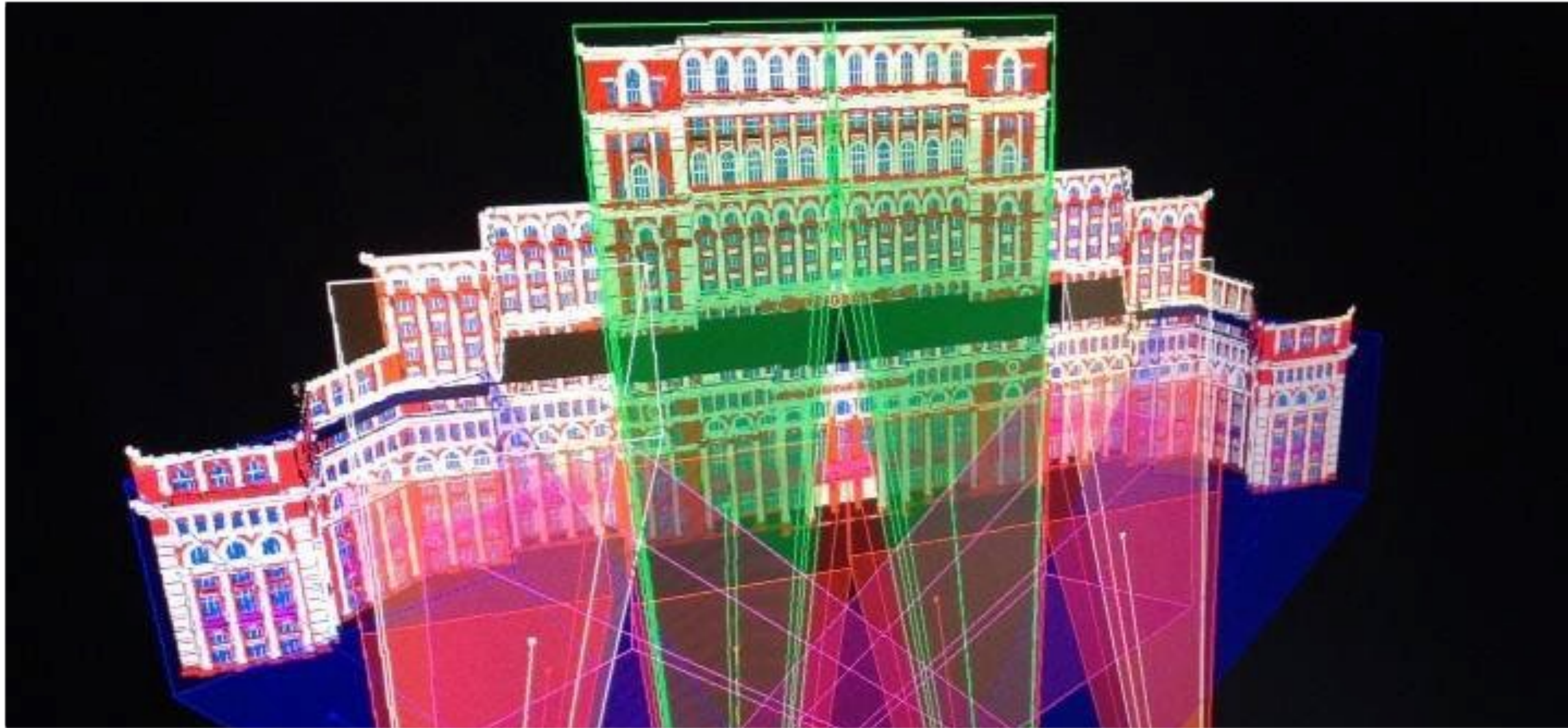


# How does projection mapping work?

Perspective Adjustment (Keystoning)

Projection Blending

# How does projection mapping work?



Putting it all together

# How does projection mapping work?

## Equipment and Software

- Media Servers
- Edge Blending Hardware
- Pro Software

Umm...

That still sounds expensive...

# Projection Mapping Budgets

Size of the Object

The Dimensionality of the Object

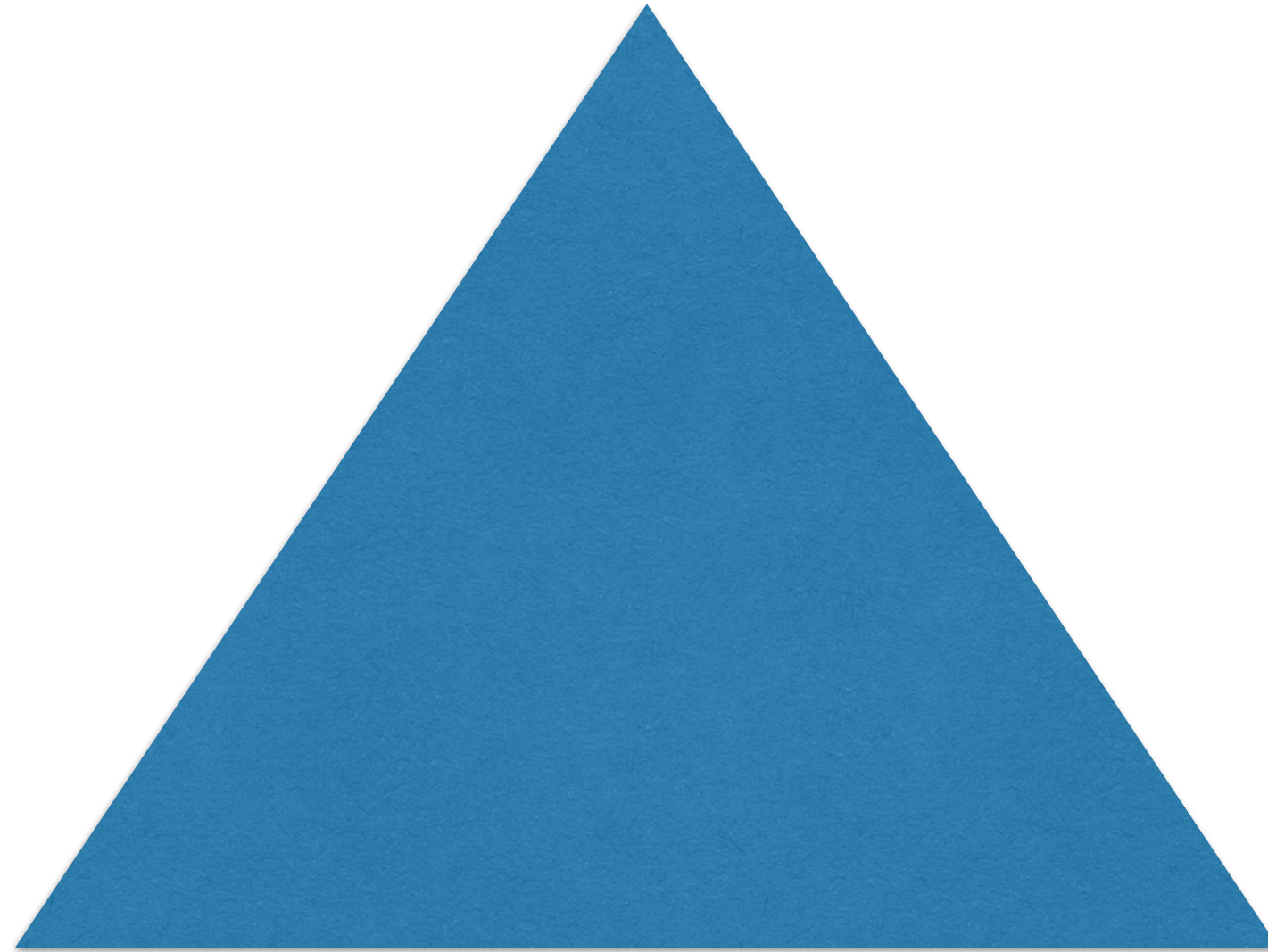
- Angles, Depth, “3 Dimensionality”
- Audience Viewing Angles

The Content to be Displayed

- Quality of the content producer
- Video: Size, resolution, duration, complexity

# Projection Mapping Budgets

SIZE



CONTENT

~~DIMENSION~~

# Projection Mapping on a Dime

# Projection Mapping on a Dime



# Basic Mapping in PowerPoint



# Basic Mapping in PowerPoint

# Basic Mapping in PowerPoint

- Works best with flat, front projection
- Similar effect as panoramic screens
- Unusual shapes and sizes of presentations may be required - Check with AV
- Can be used for video
- Can be done with Keynote

# Projection Mapping Budgets

SIZE

CREATIVITY

CONTENT

DIMENSION

# STOP!!

~~Projection Mapping~~

“Creative Uses of Projection”



# Recap

- Projection mapping is the art of digitally painting 3D objects using projection
- Cost is determined by Size, Dimensionality, and Content
- To save money, reduce one of the above factors creatively



Section One: Lesson Five

Flat Screen Displays

# Flat Screen Displays

LCD vs. ~~Plasma~~ vs. LED-LCD vs. ~~DLP~~



# Flat Screen Displays

LCD vs. Plasma vs. LED-LCD vs. ~~DLP~~

- Plasma Pros- Great Color, Great Contrast, Great Off-axis viewing
- Plasma Cons- HEAVY, reputation for “burn in”
- LED-LCD is brighter than LCD, better contrast in late models

# Flat Screen Displays

## Configuration issues

- Used to be high end "monitors"
- Now more likely consumer TVs
- THOUSANDS of options and configurations

52" Flat Screen Monitor

# LED Wall / Curtain

# LED Wall / Curtain

- Originally designed for outdoor display
- Looks better from a distance
- Modular
- Make sure they're dimmable!
- Use appropriate, low resolution content

# Choosing a display

- Best for your content and location
- Sizing of screen
- Size you need based on room
- Ceiling height



# Section One: Lesson Six

IMAG

# Oh By the Way...

## IMAG / Video recording

- When to use
- Audience comfort factor
- Set up needs
- Clear camera angles
- Determining when to show



Who Runs the Gear?

# Who runs the gear?

Presentation Specialist

Video Engineer

- Playback
- V2

Projectionist

End of Week One

OK, that was kind of a lot.

# Remember...

Don't get caught up in the techno-babble

Learn to ask the right questions

Don't forget to ask *me* questions:

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[plus.google.com/+brandtkrueger](https://plus.google.com/+brandtkrueger)



