Overview

Types of Multicamera Productions

The foundation

» What we touched on Tuesday was that creating visual content is about:

- Technical skills of using the gear
- Understanding Visual storytelling
- And … 'Art'
- You are creating things on the 'medium' of the screen just as an artist does in putting oil on canvas

TEXTURE

FORM

SHAPE

SPACE

SPACE

VALUE

COLOR

When you look at each shot

» Form

» Shape

» Space

» Value

» Color

» Texture

Stages of Production

» ** Pre-production **

» (Rehearsal)
  ▪ Table Read, Start & Stop, Dry Run, Dress

» Production

» Post-production (what?)

» Live? (delay system) Live to tape?
  ▪ multi-camera
  ▪ Vs. single camera / film style

» [Talk show]() / [Sit-com]() / game show / newscast / live event / soap opera / reality show

Sit-Com Example

Why do all sitcoms have the same layout in their apartments?

Asked by Mtl_zack (6689 ★) January 20th, 2009

Friends, Seinfeld, Frasier, Will & Grace, Dharma & Greg, That 70s Show: They all have the exact same layout for their apartments. There's a long couch with a coffee table in front of it, and a tv in front of that and there's an armchair at a 60 degree angle to the couch. Like this:
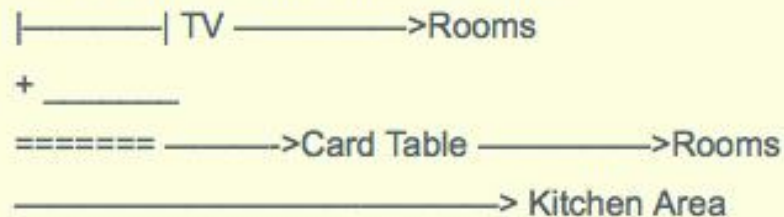
```
├——————| TV —————————>Rooms

+_____

======= ————->Card Table ———————>Rooms
——————————————————————————> Kitchen Area

-
-
-
-
├——————| is a tv
+ is a chair
====== is a sofa
——————————- is a coffee table
```

The kitchen area is off to the side, and there are some bedrooms behind the tv or couch. There's also a card table adjacent to the kitchen area.

Why is this standard?

Follow Question

Great Question   1 ★

FRIENDS

Chandler - Joey & Monica - Rachel Apartments

90 Bedford St. - Aptts. 19th & 20th

New York
NY 10014
U.S.A.

o : 1/75

Iñaki Aliste Lizarralde

F·R·I·E·N·D·S

THE BIG BANG THEORY

SHELDON - LEONARD & PENNY'S APARTMENTS

Actual layout

» Side by side stages

» Runner area for cameras, mics, crew

» Side stages

» Fixed sets and swing sets

» All indoors

» A/B/C/X cameras

» Proscenium arch

Compared to…

» Dramas / single cam sitcoms (The Office, Curb Your Enthisiasm, Malcolm in the Middle) Film style camera, lighting, mics – often no laugh track

» OR, modified options like soaps

» Open sets intertwined, 'live switching'

Crew Positions

» Remember to read closer in Chapter 2 about these

» Executive Producer, Producer, Supervising Producer, Associate Producer, Line Producer   --Hyphenate

» Director , Assoc. /Asst. / AD

» Camera, Graphics, Prompter, TD, VTR, Audio, Floor Director/Stage Manager, LD, PA s -- etc.

Production Operations

» Distribution and making money
- Online, local station, network
- Series, syndication

» Equipment required
- Cameras, switcher, cables, processing and distribution, lighting, audio, graphics, etc.

» Target audience

» 'Art' / high culture vs. popular culture

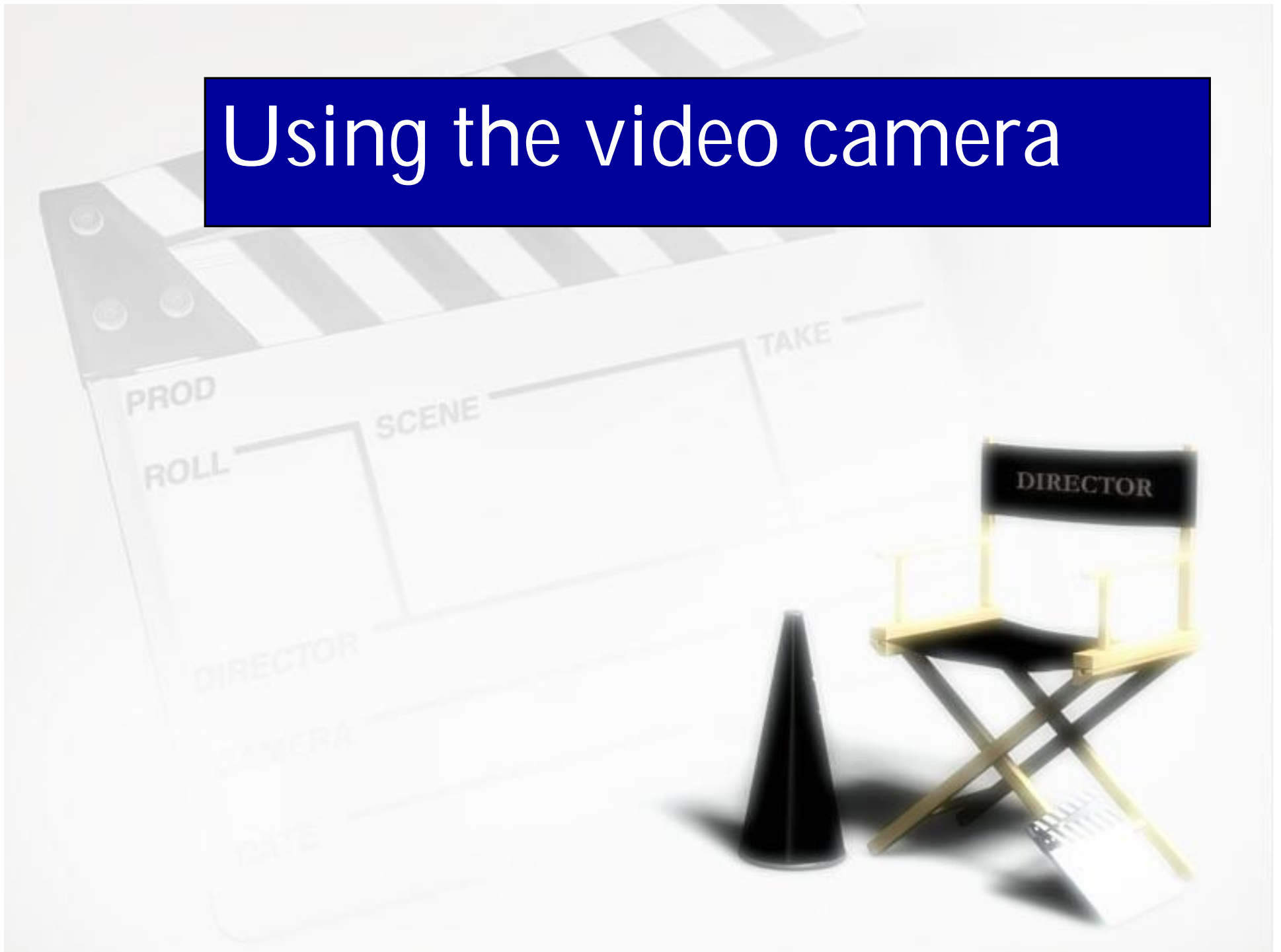# Production Operations

» Script / outline / planning
  ▪ Field planning? Scout, materials, etc.
  ▪ Studio planning? Reservation, set building, etc.
  ▪ Pre-production
» Crew positions and director and talent
» Camera shots, miking, lighting, set design
» Sets and video space
» Budget and production hours

Using the video camera

Video Technical Issues

» SD / HD / 3D / Ultra HD – '4K'

» Capturing light (film vs. video)

» Color temperature / White balance

» Focus

» Multi-cam setup: CCU for cameras

» Field shooting: shader

» Aspect ratio

■ equipment transition 4x3 to 16x9 (like CG)

» Cables, processing equipment, monitors

Principles of video color

» Light hits CCD   (1 or 3 CCDs)
- Or CMOS
- Interlaced or progressive scan

» Beam splitter splits into the 3 primary colors (electrical signals)

» Other end--LCD, plasma, LED, DLP, etc.

» 3 attributes of color
- Hue, saturation, luminance

» Chrominance : hue & saturation

» Measure video levels

Color (cont.)

» HUE…

» Primary colors: RGB

» Complementary colors

  ▪ Cyan, magenta, yellow

» White: all colors; Black: absence

Color

» Saturation

  ▪ Intensity or vividness of color

» Hue & Saturation=chrominance

» Luminance = brightness

» Luma / chroma

Camera Lenses

» Focal length…how wide or narrow

» Fixed focal length (prime lens)

» Zoom Lens

   ▪ Distance from front to back glass

» Focus: soft, sharp, selective

» Depth of field / rack focus

Camera Lenses

» Front focus to focus a zoom lens

» Back focus : use macro flange at back of lens

» F-stop aperture

- F-22, 16, 11, 8, 5.6, 4 (double/half)
- Don't use to compensate for lighting
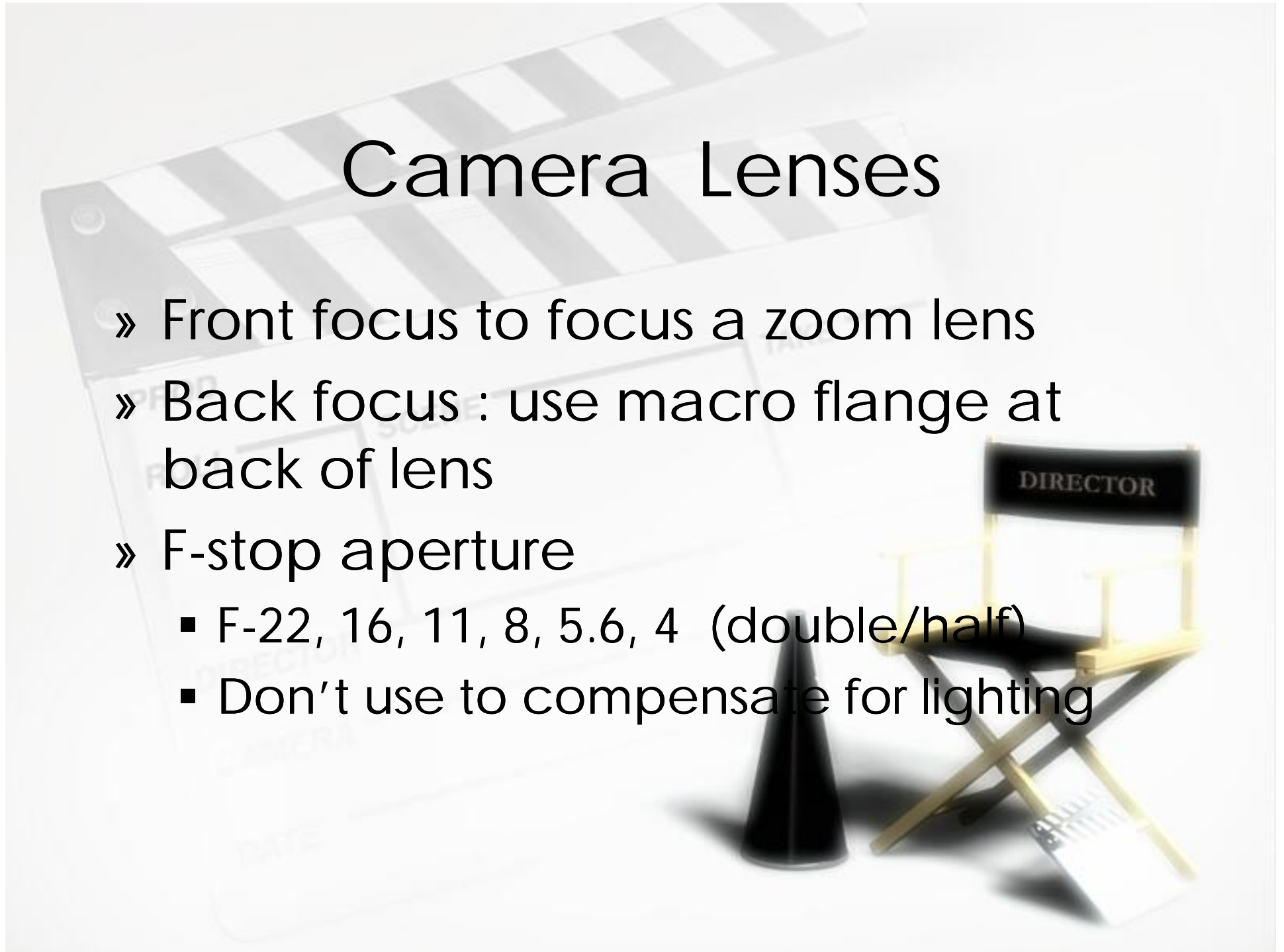
CCU and Cameras

» CCU for settings

» Tally lights

» Lighting & filters (later)

» White balance

» AGC / gain / decibels

» More on equipment in reading & later

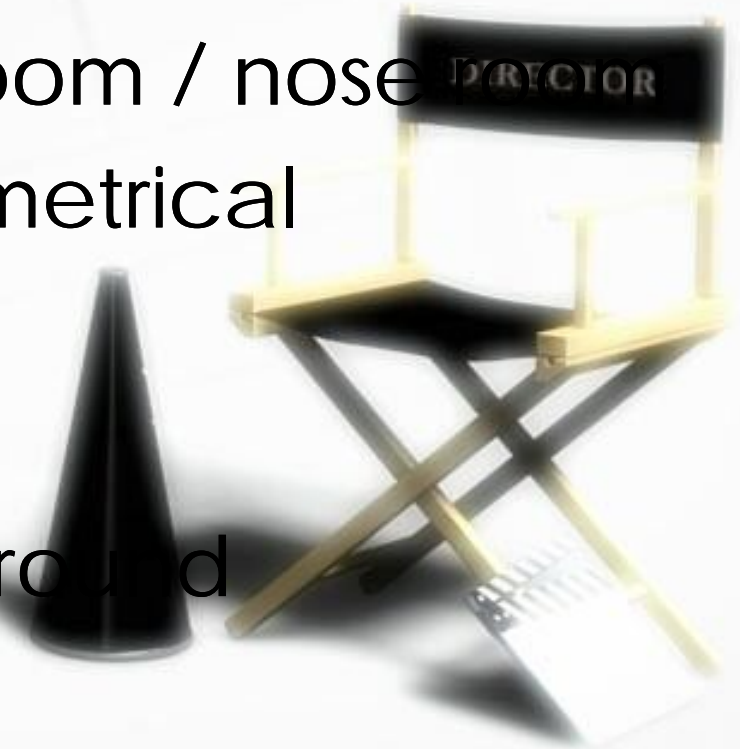# Camera Mounts & movements

» Pedestal or tripod

» Mounting head (friction, fluid)

» Camera movements

- Pan
- tilt
- truck
- dolly
- arc, zoom, boom,
- crane, steady-cam, tracking, DVE, robotic control

Shot composition

» Rule of thirds

» Head room / eye line / cut off lines

» Look space / lead room / nose

» Symmetrical / asymmetrical

» Depth of field

» Mass locations

» Foreground / background

Shot Composition

» WS / MS / CU ... ECU, MCU, etc.

» 1-shot, 2-shot, etc.

» OTS, O/S

» Eye level, high angle, low angle, low level, high level

» POV: objective, subjective, presentational

Video Switcher

» Mechanical or software

» Technical Director / Director

» Inputs: Cameras, VTRs/server, CGs, remote, weather graphics, etc.

» Preview & Program

» Monitors for each input + preview & program

» Multi-camera editing software ('live to tape')

What kinds of transitons?

» Zoom, pan, tilt? (shot change)

» Cut (take), Dissolve (lap), Fade

» Wipe (variety)

» DVE

- Continuous image compression

- Image expansion

- Image stretching

- Push off, page turn, video split

- #

Multi-cam show example

» MULTI-CAM 1: Traditional sit-coms

» MULTI-CAM 2: Games shows

» MULTI-CAM 3: Soap operas

» MULTI-CAM 4: Reality shows like Survivor

» MULTI-CAM 5: Live events

Sit-coms

» A / B / C / X cameras

» Proscenium arch

» Stages (fixed sets / swing sets)

» Live audience but laugh track

» All four cameras record

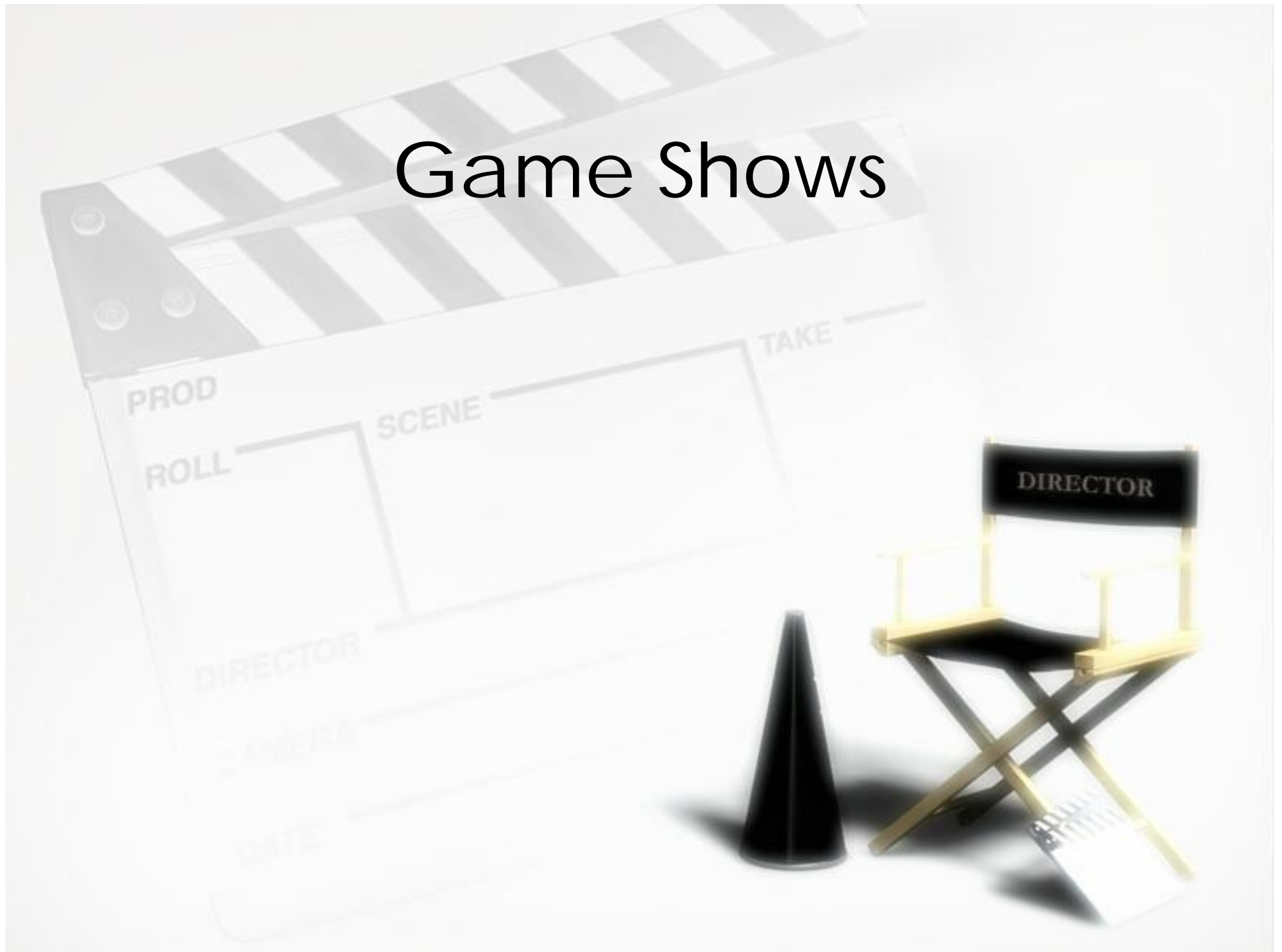» Table read Monday, shoot Friday

» 22 episodes / 11 or 13 episodes

Examples

» [Graduation](#)

» [Newtek VT5 virtual set](#)

» [$1500 / hour multicam studio show pitch](#)

» Later, we'll talk more about specific kinds of multi-cam shows, like those on the following slides.

Game Shows

Soap Operas

Social Experment Reality

Live Events

» Sports, Pageants, Awards, Graduation, Parade etc.

» Rights issues

» Set up

» Rehearsal (MNF example)

» Production company vs. network

» Video, audio, graphics, pre-produced segments