Lay it all out!
Last week...

1. What is Layout?
   - Layout is laying out the movie.

2. Why is Layout important?
   - There are a lot of assets to keep track of and efficiency is important.

3. Where is layout in production?
   - Layout is between storyboards/pre-viz, and animation.

4. What’s the difference between Layout and Pre-Visualization?
   - Layout focuses shot-by-shot, Pre-Viz focuses on sequences.

5. What are common responsibilities for layout artists?
   - Setting up the shot, placing assets, camera animation, etc.

6. How is layout tied to cinematography?
   - Layout is cinematography, just in animation.
What you need to know

- Shot composition
  - Lens choices and camera effects
  - Continuity
  - Screen direction
  - How to tell the story with your shots
- How long the shots are and padding
- Where the assets will be

All shots tell the story. Layout artists need to be aware of how compositions and assets will support the entire film.

Being good means being both imaginative AND grounded in reality!
What is is where?
Characters in relation to each other

- What is the relative size of your characters?
- What size does your set need to be?
- Maintaining the “Family Tree”
- Knowing the status and location of all current characters

“Short Changed” Family Tree
Family Trees!
Set in Relation to Itself

- What does the set look like?
- Where are all the:
  - Props
  - Scenes
  - Locations
  - Main Lighting Points
  - Shots
  - Characters
  - Beginnings
  - Endings
  - Beats
  - And so on!
- Maps!

Set layout from “Short Changed”
Characters in a Set

- How do the characters fit with the scale of your set?
- What size does your set need to be?
- Are there any constraints on the size of your characters or props?
- Do the right people know about those constraints?

“Short Changed” - Corruption scale in the fountain set
Characters in a Maya File

- Is the outliner clean and easy for the animators to use?
- Are the lights, effects, props and characters all grouped correctly?
- Are all your shaders, materials, groups, assets, and elements properly named?
- Are your Maya files running too slowly?
- Are your characters and props all up to date with the latest version?
- Is anything currently broken?

Typical “Tyrant” Outliner
Setting up your Render Camera

- Cinematography
- Are you obeying basic laws of composition?
- Is the camera correctly working for the storytelling?

- Are all of the story beats visible?
- Are all of necessary characters visible?
- Are focus, blur, flare and other camera effects used correctly and efficiently?
Shots in Relation To Each Other

- How long are each of your shots?
- Where is this information accessible?
- Do your editors need buffer padding?
- Are your animators working in padding?
- Do the editors have the most updated version of the shots?
- Is there any particular shot lagging behind?
- Do people know it’s lagging behind?
Files in the File Hierarchy

- Are all of your folders properly named?
- Is there an appropriate number of branches in your file tree?
- How long does it take someone not in a group to find a file from that group?
- Are any teams using cloud storage?
- Is everything on the server?
  - (It should be)
  - (It really, really, should be)
  - (Or layout will be very, very sad)
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Saving Files

- Save **everything**.
- Save **often**!
- Save **iterations**.
  - The save-it button is your friend.
- Keep record of your iterations.
- Save in the appropriate file.
  - Example: props should go into the prop folder!
- Save in the network.
  - But do not save on your desktop or personal folders (documents, temp, etc.)
What about that Shadow-y place?

That’s the O:/ drive. You must never go there.

SAVE IN //CSENETID.
Naming Conventions

- Use lowerscases and underscores!
  Example: sequence_01_intro_0100
- Shots should have four digits!
  - For extra wiggle room.
- Do not use:
  - Uppercase letters
  - Spaces
  - Dashes
- Do not start your file with a number also!

Why do we do this? The network and our render system is very specific!
Import vs. Reference

- Importing counts as a complete copy.
- Referencing continuously copies every second you update the source file.
  - Referencing is good for assets like props, characters, and sets because it updates immediately when the original file changes.

- Do not double reference.
  - When you double reference something, it’s referencing a file within a file. So, when that happens, it causes renders to not know where the file is coming from. Basically, it will not render.

- Do not reference lights
  - Will cause render issues, difficult to locate problems or bugs and lighting is buggy already. Also bad artistic practice.

- Do not reference cameras.
Camera Tips!

- Cameras need to be motivated in each shot.
  - *The Tyrant* example: To make viewers understand the scale, the camera needs to react to its environment.
- Make the camera shifts seem natural.
Resources

- Pixar’s Khan Academy
- David Badgerow’s Article on Layout
- What the Heck is CG Layout?
- Camera Animation Article
- Cinematography
- Autodesk’s Camera Help
- Disney’s Multiplane Camera