

# The Art of Scheduling

## PROJECT & TIME MANAGEMENT TOOLS



post production management

# INDUSTRY SPECIFIC TOOLS

Tracking VFX Work

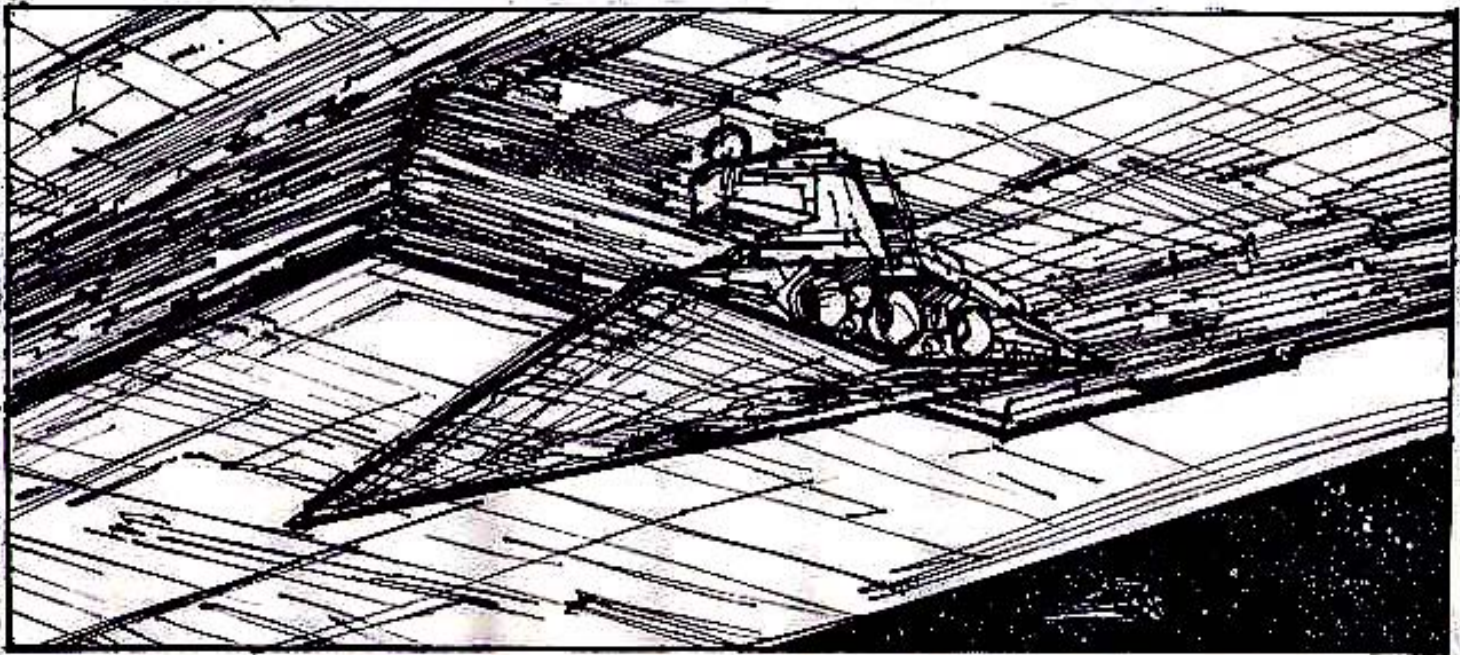


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# Turnover Sheet

- When taking on a new shot, artists are provided with a sheet that breaks down the tasks required for the shot
- In your case, you create it from a template
- Usually used in conjunction with a piece of previsualization, like a storyboard panel or concept art, but sometimes a plate





SHOT NO: VII--3 SCENE NO: 54B

PAGE 45

DESCRIPTION: EXT. IMPERIAL FLEET - SPACE  
The Fleet Assembles.

ELEMENTS: Vader's Stardestroyer & Lights.  
2 Stardestroyers & Engines  
Stars

# Turnover Form (Pdf)

- Use the turnover sheet provided if you aren't already using it
- Provides the means of tracking a shot in a larger project, when you are not the only artist



**VFX SHOT**

**SHOT #**

**#FRAMES**

**ARTIST**

**TAKE #**

**DESCRIPTION**

**HOW TO USE IT**

**SHOT ELEMENTS, PLATES**

**SHOT ELEMENTS, CGI**

**NOTES**

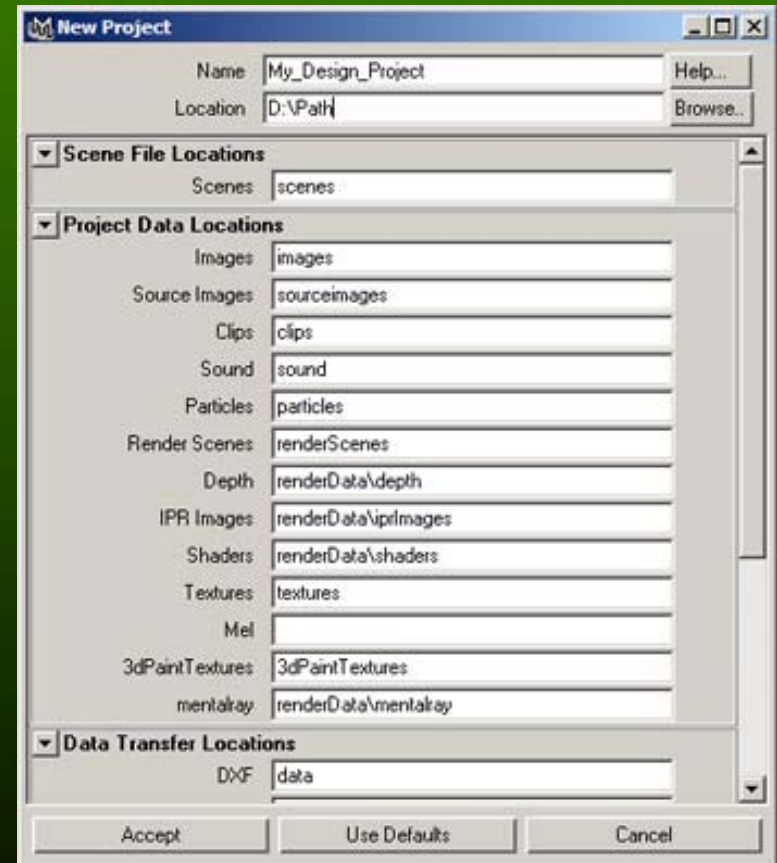
# How to Make PDF Forms

- You can use this technique to produce any kind of production form you can think of!
- Adobe Illustrator / Acrobat
- “Save As”
- **DEMO / EXERCISE**



# Project Folder Hierarchy

- You may already be using a hierarchical folder system to keep your files organized
- The quintessential example is Maya's automatic "set project" prompt



## POORLY ORGANIZED (TYPICAL FOLDER)

- 00-Sub
- flag\_01.ma
- flag1
- lumiKey\_Spray1.shk
- make\_cookies.shk
- masterLayer
- ml01\_mjh...rnover.pdf
- ml01\_mjh\_tk1.mov
- rock\_matte.tga
- slateSuperior.tga
- sub\_01.shk
- sub\_02.shk
- sub\_beauty
- sub\_comp\_1
- sub\_files
- sub01\_diff.tga
- sub01\_occ.tga
- sub01\_7.tga

## WELL ORGANIZED (MAYA FOLDER)

- 3dPaintTextures
- clips
- data
- fur
- images
- mel
- particles
- renderData
- renderScenes
- scenes
- sound
- sourceimages
- textures
- workspace.mel

# Time Lost to Looking

- Open up one of your own storage devices
- How well organized is the work?
- Could someone find a file and start working on it if you were unable to complete something?
- How much time do you think you spend looking for files every day?
- What might that add up to in a work week?



**PROJECT NAME**

**SHOT NAME**

**DAILIES**

**ELEM**

**FINALS**

**MAX**

**MAYA**

**REF**

**STILLS**

**BG**

**FG**

**HI**

**LO**

**HI**

**LO**

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# Project Folder Hierarchy

- Most software programs benefit from this kind of arrangement
- Some software environments *require* that you work this way (like creating projects for the web -- if something isn't in the *exact designated place* it can't be found).
- After Effects and Shake and Final Cut all want their files in the proper place!



# STILLS folder

- On a larger project where scene-by-scene color correction is required, artists will output two representative stills from their shots and store them in the stills folder.
- Two stills because a shot can change dramatically if a camera movement is involved (whip pan to the window)
- These will be used for comparison, to ensure that all scenes have the same color correction.

# REF Folder

- Reference images, including
  - Other shots from the same sequence
  - Hero shot from R&D (definition to follow)
  - Concept Art
  - Real world reference from research
  - Real world reference from principal photography (the shot of the full size prop, for example)



# Dailies

- Shots are viewed at dailies (which occur daily or more, at which time they might be called “nightlies”)
- Ours is an “iterative” industry, meaning you will do multiple versions of a shot until it is deemed “final.”
- New iterations are called TAKES
- Designated with a “tk” number
- **SC45\_023\_mjh\_tk8.mov**, for example

# On Takes

- If a project begins to grow stale creatively, a common approach is to review the old takes and find where things were working better. As such, a good backup and naming convention is essential to be able to bring those recipes back on line.



# Dailies

- ILM alumnus Vince DeQuattro: “Take numbers also allow the production unit to keep track of a shot’s total number of iterations in order to compare actual production costs versus budgeted production costs. During the postmortem (the analysis of a show by a combination of the production unit and the technical staff), specific areas that incurred cost overruns are dissected in order to find solutions should the same situation be encountered again.”

# Dailies Protocol (ILM)

- The VFX supervisor sits in the chair nearest the monitor.
- The supervisor is the only person allowed to use a pointing device in dailies.
- Be prepared. Know what your goal was since the last time the supervisor reviewed your shot. **Take detailed notes** and bring them with you. If something went wrong, quickly recap and provide your game plan for correcting the problem.

# The Production Notebook

- Every artist keeps a small production notebook, typically spiral bound (7" x 5") and ruled, in order to take accurate shot notes when receiving feedback from the VFX supervisor.
- This becomes your road map to making corrections, and tracking changes and updates.
- These will be included in your slate information at the beginning of each new take or iteration

# Dailies Protocol (ILM)

- Discuss the three most important aspects of the new take as they are related to the shot's progress, since the supervisor last saw the take
- Don't comment on a colleague's shot unless specifically asked to. There's nothing worse than a backseat driver in dailies. It redirects leadership focus from the supervisor and makes it difficult to get through the work



# Dailies Protocol (ILM)

- In fact, don't talk in dailies unless you are presenting your work to the crew. It's hard enough to hear the commentary when gathered in a room of any size.
- Take your own notes. Don't rely on production's notes to get you through to your next take. Use your notes to check the accuracy of the production notes. Production note takers are typically not VFX artists.



# Dailies Protocol (ILM)

- Don't elaborate, but get to the point. There's nothing worse than hearing someone go off on what amounts to a doctoral thesis early in the morning when everyone just wants to get back to their desk to fix their broken shots.
- Pay attention. Learn to see what the VFX supervisor sees. Learn what is important to him about an effects shot for the production and what is not. Train your eye by observing his or her eye.

# Dailies Protocol (ILM)

- Don't be late. Production personnel hate when they call a name, and there's no answer. If it's embarrassing for them, imagine how embarrassing it will be for you.



# On Supervision

- The work of the visual effects supervisor is fraught with excitement and danger, especially on a film with a frisky and well-educated director.
- In the following documentary from PEARL HARBOR, we get a sense of what production can be like on a major film from director Michael Bay and VFX Sup Eric Brevig



# On Supervision

- For those with a watchful eye, the doc reveals secrets about how the industry works at a major shop like ILM
- As you watch, make note of:
  - The iterative nature of the industry
  - The dynamic between supervisor and director
  - The challenges inherent in a picture of this scope
  - The challenges of satisfying an immensely talented but complete bastard like Bay



# Scheduling 101

Managing the Workload



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# VFX Industry Standards

- Feature film work is broken out into **eight hour days**, with the VFX producer and supervisor determining the length of the activities in the script and assigning artists and days.
- An uninterrupted eight hour day is not always possible, so the solution is to budget for **four hour days** instead



# VFX Industry Standards

- Similar tasks are collected under subcategories
  - Modeling
  - Texturing
  - Animating
  - Lighting
- Allocate the appropriate amount of time for each task and add them up



# EXERCISE

- Create an estimated day-by-day schedule for the following problem, based on your current skill level.
- “Rotoscope the following shot as indicated:”



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# Guesswork

- What we just experienced is a common problem: *how long does a task take?*
- Experienced artists are able to do this to a much greater degree of accuracy
- Supervisors will know what the average times are on *typical tasks*
- With this business, few tasks are typical



# Guesswork

- Protocol states that you should always ask up
- Find a senior artist that specializes in the type of work, ask for a rough estimate of time and resources



# In The Biz, Per Shot Estimate

- Two weeks: model and texture assets
- One week for matchmoves
- Two weeks to animate
- One week for lighting
- One week Rendering
- One week for compositing
  - **Note:** *Extensive* CGI will alter these estimates
  - **Note:** Some of these can be performed at the same time, to save time and end monotony

# EXERCISE

- Which of these can be performed at the same time on this shot?
  - Model and texture assets
  - Matchmove
  - Animate
  - Lighting
  - Rendering
  - Compositing



# In preproduction

- Build in time to conduct Research and Development (R&D)
- “Hero-shot testing”



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# Hero Shot

- **Hero Shot:** a single test shot that exhibits all of the problems you will be facing throughout the production.
- Can be used to win a bid for a studio, can be used in teaser trailers.
- Might be the hardest shot in a project.
- Proof of Concept / Prove that you can do it
- Try to do one per sequence in a project




# Gantt Chart

- A style of project management that illustrates a graphical representation of tasks versus time



# Remodeling Project

Remodeling Project Job No.: 980045.05	Jul'02			Aug'02				Sep'02				Oct'02		
	15	22	29	5	12	19	26	2	9	16	23	30	7	14
Project Summary	←  →													
Soft Demo	█													
Sawcut & Demo-Structural			█											
Structural Steel-Fab			█											
Framing-Rough			█											
Skylights			█											
Roofing Curbs & Patch			█											
Electrical-Rough/Finish			█											
Overhead Doors					█									
Inspection-Structural Rebar					◆									
Structural Concrete-Pour					█									
Service/Repair Elevator					█									
Plumbing Rough					█									
Data/Phone Cableing					█									
Structural Steel-Install					█									
T-bar Grid Repair					█									
Inspection-Walls					◆									
Inspection-Drywall Screw					◆									
Mud & Tape							█							
Mezzanine Demo							█							

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# Gantt Chart

- Allows you to assess project length
- Creates an order for tasks
- Manage dependencies between tasks
- Show what needs to be done when



# Gantt Chart

- Developed in 1896, popularized in the Nineteen-teens
- Much easier to make and update with software than by hand (see “gantt\_excel” document)
- Better if the project has less than 30 items -- tends to get too vertical, hard to read, and hard to discern dependencies



## Project Timeline

	2006												2007			
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	
Location Scout (2)	■															
Location Shoot (6)	■	■	■													
Scanning (2)			■													
Casting (4)		■														
Green Screen Shoot (10)		■	■	■	■											
Animatics (11)	■	■	■													
R&D (10)	■	■	■													
Dynamics Test (6)					■	■	■									
Asset Modeling (14)	■	■	■	■	■											
Animation (22)		■	■	■	■	■	■	■	■							
Dynamics Sim (12)							■	■	■	■	■					
Lighting (30)			■	■	■	■	■	■	■	■	■					
Rendering (35)					■	■	■	■	■	■	■	■	■	■		
Composite & Rotoscope (28)							■	■	■	■	■	■	■	■		
Sound edit (4)													■	■		
Final Editing (4)														■	■	
Creating DVD (3)															■	■
Thesis book (3)																■

*One week = 40 hours*

# Assignment

- Create a Gantt chart for your “dream shot”
- Use Microsoft Excel and the setup instructions provided
- Save the document for later use -- you are creating a template you can fall back on for the management of your own projects

