

MA 3DCA Production Management:

Code: **M7X00661**

Assignment 1 Guide:

(Revised 21-03-2018)

You are required to calculate the cost, in days worked, of a sequence consisting of a series of shots from the feature film “9”. This is a reverse engineering exercise where you have to calculate the cost in days from the finished film.

Study The Feature Film “9” focusing on the part of the film that has been assigned to you for scoping.

If you are not sure which part (sequence) you have been assigned then ask your tutor to show you.

You can calculate the days worked based on your own experience OR from what you have found out about the film “9” and how long it took to make. You must, however, be consistent, and try to base your calculations on professional practice. Look on the internet for anything you can find about the processes and how many people worked on it and for how long. Some parts you may have to guess, but you need to guess realistically.

Make an assumption that for your sequence, everything must be made from scratch (from the beginning). Do not assume that because components were used in a previous sequence, that they do not need to be scoped. Everything in your allocated sequence must be scoped as though it never existed in any other previous sequence or shot.

Do not include any of the processes listed in “Other Post Production”. These should not appear in your scope.

How to Scope:

Examine the whole sequence and first, make a list of the shots within the sequence.

(The examples below are taken from the trailer for “Despicable Me”)

For each shot you will need:-

A shot number.

(Example: Shot 7)

A brief description of what the action is.

(Example: Father poses for the camera)

What sort of camera angle is used?

(Example: Mid Shot)

What sort of camera move is used?

(Example: Locked Off)

Elements in the shot:

Which characters are in the shot?

(Example: Father, 4 tourists)

Which environment is in the shot?

(Example: Pyramid 1 and Ground)

Which Properties are used in the shot?

(Example: The Fence, rocks, tourist cameras)

Which Other elements are used in the shot?

(Example: Small amount of Sky)

Any comments about anything that may affect the scope of the shot.

(Example: Pyramid 1, fence, rocks, can be 2D or a pre-rendered still)

All Elements in the Sequence:

Secondly, make a list of all the elements which include characters. environments and properties that you have found in your whole sequence.

For each element you will need:-

A description of what each element has to perform.

(Example: FATHER: Has to jump from bus, pose, jiggle dance, get flattened.)

For each element you will need:-

A list of which production processes needed to get this element "shot ready". Use the categories listed above.

List the processes in order of execution with a short technical description and how long they will take.

(Example: FATHER: Character Build, should not include his hat and sun shades which should be separate properties. 14 days).

(Example: FATHER: Character Texture, no obvious problems. 7 days).

(Example: FATHER: Character Rig, should include leg FK setup for final fall to ground. 4 days).

Include a total in days at the end of each element.

The Animation and Choreography:

Third, calculate how long each shot will take to animate, listing each animated element in turn for each shot and any technical information which may be useful.

(Example: SHOT 7: Father 6 days, Tourists 2 days. tourists do not interact with father so can animated separately)

Include a total in days at the end of each shot.

Lighting, Rendering & Post Production:

Fourth, list each shot in terms of how long it will take to light, render and composite.

Include a total in days.

The Final Scope:

Finally, your scope should include a list of all process and where possible in production order. The list should include the name of the process, the element it refers to and the amount of time in days that the process will take to execute. You can lay out this data in anyway you see fit and use tables if you wish.

Finalise your assignment by informing us of the grand total in days but you may also include sub-totals if you wish.

*(Example: **Total days 99***

(Example :

<i>Building.</i>	<i>15</i>
<i>Rigging.</i>	<i>10</i>
<i>Texturing.</i>	<i>20</i>
<i>Animation.</i>	<i>25</i>
<i>Lighting.</i>	<i>5</i>
<i>Rendering.</i>	<i>7</i>
<i>Post Production.</i>	<i>10</i>
<i>Review Sessions.</i>	<i>7</i>

A Model Answer

This is the way that I would complete this assignment. I examine each shot in detail and break it down into the components. Try to be as comprehensive as you can by thinking about the smaller details.

(The Model Answer Starts Here)

The analysis of the first section of the trailer “Despicable Me”.
(Taken from the DVD “9”)

Introduction:

The sequence I am analysing is the trailer that advertises “Despicable Me” found at the beginning of the DVD of “9”. The sequence is completely 3D computer generated with no other elements like “live action” included.

It starts with the open shot and ends with a wide shot of the pyramid deflating. There are 34 shots in total. The duration of the sequence I am analysing is one minute and twenty-two seconds (1’ 22”). I have calculated the days allocated to this sequence by looking at the support material on the DVD and on the web to find out how long things really did take.

Sequence Description:

The arrival of a tourist bus disrupts the quite life of a shepherd and his goats. The bus comes to stand still and the tourists disembark, all armed with cameras. Among the tourists are a mother, father and a uncontrollable male child. While the mother takes photographs of the father against a background of the pyramids the child runs off and beyond the “taped off” area and runs up an old rickety wooden ramp. Two security guards pursue the child but are not quick enough. The child falls off the very top end of the ramp but instead of injuring himself on the hard surface of the pyramid, he falls into an inflatable version of the pyramid and bounces back into the air. Mother tries to catch him on his return but he eventually falls on top of his father. The pyramid then deflates.

Sub-Sequences:

Some of the shots in this sequence are related because they share the same camera angle AND action. They have been part of a sub-sequence which has been cut into shorter shots and separated by “cutaways”. These related shots will be listed together and classed as a sub-sequence.

Set-Ups:

Some of the shots in this sequence are related because they share the same camera angle and background content but may have different action or content. These related shots will be cross-referenced by having the same “set-up” number.

Shot Descriptions:

Shot 1:

Set-Up: 1. (1st use)

Description: Shepherd and his six goats walk away from camera.

Camera: Mid Shot Panning and Tilting going to wide.

Elements: Shepherd. 6 Goats, distant pyramids. Ground hill.

Comments: Distant Pyramids can be 2D or a pre-rendered still.

Shot 2:

Set-Up: 2.
Description: Shepherd looking around. The bus crosses the frame and severely disrupts the shepherd.
Camera: Mid CU Locked off.
Elements: Shepherd. Fast moving Bus. Dust
Comments: Bus can be 2D or a pre-rendered still. Dust can be post production.

Shot 3:
Set-Up: 1. (2nd use)
Description: The bus continues into the distance leaving the shepherd coughing with the dust.
Camera: Wide and Tilting up.
Elements: Shepherd. Fast moving Bus. Distant Pyramids. Dust. Ground hill.
Comments: Distant Pyramids can be 2D or a pre-rendered still.
Dust can be post production.

Shot 4:
Set-Up: 3.
Description: CU of bus window with male child looking out.
Camera: Locked off.
Elements: Male child. Mother. Father. Bus. Distant Pyramids reflected. Dust
Comments: Distant Pyramids can be 2D or a pre-rendered still. for reflection.

Shot 5:
Set-Up: 4.
Description: Father, Mother, male child & five tourists leave the bus.
Camera: Mid Shot Locked Off..
Elements: Father, Mother, Son and Bus. Luggage on bus, child lead. Ground hill, trees & rocks, background and sky. Dust.
Comments: Rocks and trees can be 2D or a pre-rendered still. Dust can be separate layer.

Shot 6:
Set-Up: 5. (1st use)
Description: Father, Mother & male child proceed down the slope leaving the bus.
Camera: Mid Shot Slight Pan.
Elements: Father, Mother, Son and Bus. Luggage on bus, child lead. Ground hill, trees & rocks, background and sky.
Comments: Rocks, trees, bus and luggage can be 2D or a pre-rendered still.

Shot 7:
Set-Up: 6. (1st use)
Description: Father poses for the camera.
Camera: Mid Shot Locked Off.
Elements: Father, 4 tourists, Pyramid 1 and Ground. The Fence, rocks, tourist cameras
Comments: Small amount of Sky. Pyramid 1, fence, rocks, can be 2D or a pre-rendered still.

Shot 8:
Set-Up: 5. (2nd use)
Description: Mother stops to take photograph. Male child runs out of frame.
Camera: Mid Shot Locked off.
Elements: Mother, Son and Bus. Luggage on bus, child lead, ground hill, trees & rocks, background and sky.
Comments: Rocks, trees, bus and luggage can be 2D or a pre-rendered still.

Shot 9:
Set-Up: 6. (2nd use)

Description: Father poses for the camera. Male child runs away from camera with toy airplane.
Camera: Mid Shot Panning & Tilting.
Elements: Father, 4 tourists, Pyramid 1 and Ground. The Fence, rocks, tourist cameras, 2 guards, wooden ramp.
Comments: Small amount of Sky. Pyramid 1, fence, rocks, ramp, tourists, guards, can be 2D or a pre-rendered still.

Shot 10:
Set-Up: 7.
Description: Male child runs towards camera with toy airplane.
Camera: CU Shot Zooming in.
Elements: Male child, 2 guards, father, mother. The Fence.
Comments: Background can be 2D or a pre-rendered still.

Shot 11:
Set-Up: 8.
Description: Mid shot of father, mothers and guards reaction.
Camera: Mid shot locked off.
Elements: 2 guards, father, mother. The Bus
Comments: Background and bus can be 2D or a pre-rendered still.

Shot 12:
Set-Up: 9.
Description: Wide shot of Male child running up the wooden ramp chased by the guards.
Camera: Wide shot panning up.
Elements: Male child, 2 guards, ramp, pyramid, sky.
Comments: Background and pyramid can be 2D or a pre-rendered still.

Shot 13:
Set-Up: 10.
Description: Top shot of Male child running up the wooden ramp chased by the guards.
Camera: Wide shot tracking up.
Elements: Male child, 2 guards, ramp, ground.
Comments: Ground can be 2D or a pre-rendered still.

Shot 14:
Set-Up: 11.
Description: Side shot of Male child running up the wooden ramp chased by the guards.
Camera: Wide shot tracking up.
Elements: Male child, 2 guards, ramp, background.
Comments: Background can be 2D or a pre-rendered still.

Shot 15:
Set-Up: 12.
Description: CU shot of Male child and the guards.
Camera: Locked off.
Elements: Male child, 2 guards, background.
Comments: Background can be 2D or a pre-rendered still.

Shot 16:
Set-Up: 13. (1st use)
Description: CU shot of Male child on the lip of the ramp.
Camera: Locked off.
Elements: Male child, ramp, pyramid background.
Comments: Pyramid background can be 2D or a pre-rendered still.

Shot 17:
Set-Up: 14.
Description: Wide top shot of Male child and guards on the ramp.
Camera: Tracking up compound shot.
Elements: Male child, guards, ramp, pyramid background.
Comments: Pyramid background can be 2D or a pre-rendered still.

Shot 18:
Set-Up: 15.
Description: CU under shot of Male child feet on the ramp.
Camera: Locked off.
Elements: Male child, CU ramp lip. sky
Comments: Sky background plain.

Shot 19:
Set-Up: 13. (2nd use)
Description: CU shot of Male child on the lip of the ramp.
Camera: Locked off.
Elements: Male child ,ramp, pyramid background.
Comments: Pyramid background can be 2D or a pre-rendered still.

Shot 20:
Set-Up: 16. (1st use) Sub-Sequence 1:
Description: Wide low shot looking of Male child falling off ramp looked on by guards.
Camera: Locked off.
Elements: Male child ,ramp, guards, sky background.
Comments: Plain sky.

Shot 21:
Set-Up: 17. (1st use)
Description: Medium shot mother and tourists looking on.
Camera: Zooming in.
Elements: Mother, 4 tourists, ground background.
Comments: Ground background can be 2D or a pre-rendered still.

Shot 22:
Set-Up: 18. (1st use)
Description: Over the shoulder shot guards watching the male child fall.
Camera: Tracking shot.
Elements: Male child ,ramp, guards, Distorting pyramid.
Comments: Pyramid to be animated but not in this shot.

Shot 23:
Set-Up: 16. (2nd use) Sub-Sequence 1:
Description: Wide low shot of guards looking down
Camera: Zooming out..
Elements: Ramp, guards, sky background.
Comments: Plain sky.

Shot 24:
Set-Up: 19.
Description: Mid High shot of male child falling into the pyramid.
Camera: Zooming in.
Elements: Male child, Distorting pyramid.
Comments: Pyramid to be animated.

Shot 25:
 Set-Up: 20.
 Description: CU mothers reaction and tourists looking on.
 Camera: Locked off.
 Elements: Mother, 2 tourists, ground background.
 Comments: Ground background can be 2D or a pre-rendered still.

Shot 26:
 Set-Up: 18. (2nd use)
 Description: Over the shoulder shot guards watching the male child fall.
 Camera: Panning shot.
 Elements: Male child ,ramp, guards, Distorting pyramid.
 Comments: Pyramid to be animated.

Shot 27:
 Set-Up: 16. (3rd use) Sub-Sequence 1:
 Description: Wide low shot of guards looking down as child bounces through shot.
 Camera: Panning.
 Elements: Ramp, guards, sky background, male child
 Comments: Plain sky.

Shot 28:
 Set-Up: 17. (2nd use)
 Description: Medium/wide shot mother and tourists looking on.
 Camera: Panning.
 Elements: Mother, 5 tourists, ground background.
 Comments: Ground background can be 2D or a pre-rendered still.

Shot 29:
 Set-Up: 21. (1st use) Sub-Sequence 2:
 Description: Wide shot looking up of male child falling towards ground.
 Camera: Panning.
 Elements: Male child, pyramid, sky background.
 Comments: Pyramid background can be 2D or a pre-rendered still.

Shot 30:
 Set-Up: 22.
 Description: High shot looking down of POV falling towards ground.
 Camera: Tracking.
 Elements: Mother, father, 5 tourists, ground background.
 Comments: Background can be 2D or a pre-rendered still.

Shot 31:
 Set-Up: 21. (2nd use) Sub-Sequence 2:
 Description: Wide shot looking up of male child continuing to fall towards ground.
 Camera: Tracking.
 Elements: Male child, pyramid, sky background.
 Comments: Pyramid background can be 2D or a pre-rendered still.

Shot 32:
 Set-Up: 23.
 Description: Mid shot of mother ready to catch her child and father.
 Camera: Locked off.
 Elements: Male child, Mother, father, background, dust.
 Comments: Background can be 2D or a pre-rendered still. Dust can be post-production.

Elements: Male child, pyramid, sky background.
Comments: Pyramid background can be 2D or a pre-rendered still.

Shot 33:
Set-Up: 24.
Description: Mid shot of pyramid deflating with mother and father in foreground.
Camera: Locked off.
Elements: Male child, Mother, father, pyramid, dust.
Comments: Dust and pyramid must be an integrated render.

Shot 34:
Set-Up: 25.
Description: Wide shot of pyramid deflating collapsing ramp.
Camera: Locked off.
Elements: Male child, Mother, father, pyramid, dust. and other props
Comments: Dust and pyramid, ramp, and other props must be an integrated render.

List of Set-ups:

Number of Unique set-ups 19.

Re-used (Common) set-ups : 15

Days: Are the days allocated to preparing the set-ups with regard to BG scenery and general lighting.

Re-used Set-ups:	Set-up Description	Repeated.	Days
1	Shepherd and pyramid BG.	2 times	4
5	Sloping down from the bus	2 times.	3
6	Father posing form the camera	2 times.	4
13	Lip of the ramp	2 times.	2
16	Low shots ramp looking up (Sub S1)	3 times.	2
18	Over shoulder shot of guards	2 times.	2
21	Looking up Male child falling to earth (Sub S1)	2 times.	1
	Set-ups Total Days		20

All Characters in the Sequence:

ELEMENT	Appears in shot No	Remarks	Build Days	Txtre Days	Rig Days	Other Days	Total Days
SHEPHERD	1, 2 and 3	Has to walk and fall down. Keep stick separate. Needs cloth rig	12	9	7	0	28
GOATS (*6)	1	Have to walk. Needs cloth rig. Texture is unique for each	15	20	7	0	42

BUS	3, 4 and 5	Has to drive and wobble on its suspension. Build includes luggage	16	10	3	0	29
MALE CHILD	4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 27, 29, 31 and 32	Has to run around jump and fall. Build should not include toy airplane or harness. Legs need FK	12	7	5	0	24
FATHER	4, 5, 6, 7, 9, 11, 30, 32 and 33	Has to jump from bus, pose, jiggle dance, get flattened. Build should not include hat and sun shades. Legs need FK	14	7	5	0	25
MOTHER	4, 5, 6, 8, 11, 21, 25, 28, 30, 32 and 33	Has to jump from bus, hold child lead, take photograph, walk. Build should not include camera. Needs hair rig.	12	9	7	0	28
TOURISTS (*5)	5, 7, 9, 21, 25, 28 and 30	Has to jump from bus, take photographs, walk.	35	20	14	0	69
GUARDS (*2)	10, 11, 12, 13, 14, 15, 17, 20, 22, 23, 26 and 27	Have to around and run after the male child.	6	6	4	0	16
RAMP	12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 26 and 27	Some parts have to vibrate.	6	3	1	0	10
RAMP COLLAPSING	34	Specialist collapsing ramp and other props	6	1	5	0	12
PYRAMID DEFLATING	33 and 34	Deflates and compresses on impact.	10	10	10	0	30
		Character Total Days					313

All Properties in the Sequence:

ELEMENT	Appears in shot No	Remarks	Build Days	Txtre Days	Rig Days	Other Days	Total Days
Shepherds STICK	1, 2 and 3						1

Male child TOY AIRPLANE	4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 27, 29, 31 and 32						2
Male child HARNESS	5, 6 and 8						3
Father HAT & SUNSHADES	4, 5, 6, 7, 9, 11, 30, 32 and 33						2
Mother CAMERA	4, 5, 6 and 8						2
MOTHER	4, 5, 6, 8, 11, 21, 25, 28, 30, 32 and 33						1
		Properties Days Total					11

The Animation and Choreography:

Reference:	Description	Days for each Participant	Total Days
Shot 1	Shepherd and his six goats walk away from camera	Shepherd 3, Goats 6.	9
Shot 2	Shepherd looking around. The bus crosses the frame and severely disrupts the	Shepherd 3	3
Shot 3	The bus continues into the distance leaving the shepherd coughing with the dust	Shepherd 3, Bus 1	4
Shot 4	CU of bus window with male child looking out.	Male child 0.5, Bus 0.5	1
Shot 5	Father, Mother, male child & five tourists leave the bus.	Father 1, Mother 2, male child 2, tourists 4, child harness 1.	10
Shot 6	Father, Mother & male child proceed down the slope leaving the bus.	Father 1, Mother 2, male child 2, child harness 1.	6
Shot 7	Father poses for the camera.	Father 3	3
Shot 8	Mother stops to take photograph. Male child runs out of frame	Mother 2, male child 2, child harness 1	5
Shot 9	Father poses for the camera. Male child runs away from camera with toy airplane.	Father 2, male child 2	4
Shot 10	Male child runs towards camera with toy airplane	Male child 2, guards 1, father 1, mother 1	5

Shot 11	Mid shot of father, mothers and guards reaction	Guards 2, father 1, mother 1.	4
Shot 12	Wide shot of Male child running up the wooden ramp chased by the guards.	Male child 2, guards 3.	5
Shot 13	Top shot of Male child running up the wooden ramp chased by the guards.	Male child 1, guards 2	3
Shot 14	Side shot of Male child running up the wooden ramp chased by the guards	Male child 1, guards 2	3
Shot 15	CU shot of Male child and the guards	Male child 1, guards 2	3
Shot 16	CU shot of Male child on the lip of the ramp	Male child 1	1
Shot 17	Wide top shot of Male child and guards on the ramp.	Male child 1, guards 2	3
Shot 18	CU under shot of Male child feet on the ramp.	Male child 1	1
Shot 19	CU shot of Male child on the lip of the ramp	Male child 1	1
Shot 20	Wide low shot looking of Male child falling off ramp looked on by guards	Male child 1, guards 1	2
Shot 21	Medium shot mother and tourists looking on	Mother 1, tourists 1	2
Shot 22	Over the shoulder shot guards watching the male child fall.	Male child 1, guards 1, distorting pyramid 1.	3
Sub Sequence 1 (shot 23, 27)	Wide low shot of guards looking down.	guards 1, male child 1	2
Shot 24	Mid High shot of male child falling into the pyramid	Male child 1, distorting pyramid 1.	2
Shot 25	CU mothers reaction and tourists looking on	Mother 1, tourists 1	2
Shot 26	Over the shoulder shot guards watching the male child fall.	Male child 1, guards 1, distorting pyramid 1.	3
Shot 28	Medium/wide shot mother and tourists looking on.	Mother 1, tourists 2	3
Sub Sequence 2 (shot 29, 31)	Wide shot looking up of male child falling towards ground.	Male child 1	1
Shot 30	High shot looking down of POV falling towards ground.	Mother 1, father 1, tourists 1	3
Shot 32	Mid shot of mother ready to catch her child and father.	Male child 1, Mother 1, father 1	3
Shot 33	Mid shot of pyramid deflating with mother and father in foreground.	Mother 0.5, father 0.5 pyramid 1	2

Shot 34	Wide shot of pyramid deflating collapsing ramp.	pyramid 1, other props 2	3
	Animation Total Days		105

Other Processes:

PROCESS	Description:	Days
Lighting (final) Sequences.	The process of artistically applying lighting sources and filters	10
Rendering	The process of producing a sequence of fully shaded or coloured frames. This is time allocated for setting up the renders and NOT the rendering time.	10
Post Production	This includes putting in the DUST in shots where it is needed	34
Review Sessions:	This is where the clients (those who have a creative say in how things should look) have their say. Allowed one day per shot.	34
	Total Other Processes	88

THE FINAL SCOPE:

PROCESS	Days
Set-ups	20
Characters	313
Properties	11
Animation	105
Other	88
TOTAL DAYS	537

Summery:

In my final calculation it would take one person approximately 537 days to complete this sequence in the “Despicable Me” trailer.

The final scope, therefor is 537 days.

In terms of cost and division of labour, it could have taken a crew of 100 around 5 to 6 man days to complete. In terms of schedule then the figure of 5 to 6 days is not practical because some of the processes have to be completed before others.

Henry Lutman 15-02-2016