PARK ROAD
POST PRODUCTION

VFX TURNOVERS

A GUIDE FOR BREAKING DOWN AND TURNING OVER TO PARK ROAD VFX

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FUNDAMENTALS

One of the most important objective when building turnovers for VFX work is a rigorous and consistent approach to shot naming.

Typically identifying the break-out of vfx work takes the form of:

`[SHOWID]_[SCENE]_[SHOT]`

The [scene] id can be a scene number or a scene code, as long as it's unique, there is no issue. The shot number should be unique within that scene. One scene may have many shots within it.

> NB: Many shows, especially feature films, will use scene numbers. Shorter works, installation pieces and some web work sometimes use scene codes instead of numbers.

Option 1: Using Scene Numbers

It's usually a good idea to allocate the shot numbers in '10's' when you initially break out the VFX shots, as this allows for logical insertion of shots between those in the original turnover (if needed) at a later date.

> Tip: Use 3 letter / 3 number codes for everything, where possible. Delimit names using underscores.

Option 2: Using Scene Codes

Let us imagine we've broken VFX Work for the film "Asphyxiation" down into four scenes, and have assigned four corresponding codes to those scenes (instead of using scene numbers):

Ship Travels,	SHP
Fight Scene,	FGT
Wharenui Interior,	INT
Below Decks,	BLW

We would then go through the cut and identify something like

`ASP_SHP_010, ASP_SHP_020, ASP_SHP_030`

`ASP_FGT_010, ASP_FGT_020`

This approach allows us to insert an additional shot, such as `ASP_FGT_015` if required at a later date, the shot name itself remains consistent with the flow of the cut and 'makes sense' to the vfx coordinator at your facility.

Shots can also split like this: `ASP_FGT_015p1` and `ASP_FGT_015p2` do not use a decimal/full-stop to show parts, use a letter like 'p' in the new tape/shotname:

`ASP_SHP_010` split into `ASP_SHP_010p1` and `ASP_SHP_010p2`

TEMPCOMP/BASHCOMP = VERSION ZERO

It's *extremely* useful in the edit to immediately create a bashcomp (effectively this is version zero of the vfx process) which exists in your offline cut from the moment the shot is identified as a VFX. This might simply be the hero element to start with.

This will help you identify the elements required when bidding the work out/arranging for elements to be delivered to the successful vendor, and will help understand the complexity of the work required.

> Tip: Place all the elements required into their own timeline for VFX pulls – that way you'll be able to generate an EDL with the pull request direct to Park Road and their automations should make for a very efficient delivery of elements to your VFX vendor.

If you're tracking VFX returns in their own timeline to cross-cut back into the current version of the master reel, you may wish to consider placing the bash-comp on a video track above it's source elements — that way that you can update this return with the current version without losing the connection to the underlying source if there are any queries.

Locators on the hero source clips can be useful in this timeline.

> Tip: Use colours to denote the status of the shots on this VFX checks timeline so you can identify at a glance status like:
>
> • In-Progress
> • On Hold
> • Omitted
> • Finalled
> • CBB Shots

BIDDING

It's helpful to create an overall bidding spreadsheet which allows you to take the shot breakout and start assigning a feel for resource required to achieve an acceptable cinematic outcome – and to balance the available budget (time, not just money!) across the shots which will be bid out.

Effort

You've got a fairly good feel for how difficult the work is likely to be, it can be useful to assign something simple like EASY / MEDIUM / HARD to the shots and use that to help fit the amount of work to the available budget.

Working the Budget

It's really important to share the budget available for VFX with the bidding facilities – they may be able to assist with weighting or scheduling to help achieve your ambition for the project.

Typical values tracked for budgeting are:

- Sequence ID (i.e. Scene Number or Code)
- Shot Number
- Shot Description
- Client Assessment
  – how much work do you think is required by your vendor
- Methodology
  – what you think will be needed to achieve the desired shot
- Shot Type
  – it's good to have a generalised set of work-types such as GS Comp, MoGFX, MuzzleFlash, SetExtn. NightVision etc
- Any bidding assumptions (e.g. pre-work or supplied elements/stock shots)
- Dividing the number of shots by the 2D shot cost will give a subtotal for this work.

We show an example spreadsheet with columns which reflect this approach as figure 1 later in this document.

VFX Vendor Assessment

Your VFX Vendor is likely to assess work required by their team in terms of days for any of the following tasks (where relevant) – the more you can learn about these assessments, and the more detail you can share around any variations, the more accurate this bidding will be for all parties.

What this process really drives is the overall timing – and therefore the schedule – for the VFX pipeline, with department specific weighting then able to be calculated against the available budget and resources.

- Concept
- Motion Graphics
- Matte Paint work
- Tracking
- MatchMoves
- Layout
- Animation
- Cloth & Grooming
- FX and Lighting
- Roto
- Paint
- Final Comp

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Budgeting

Pg#	Seq#	Shot #	Shot Description	Client Assesmnet	# of Shots	Client Notes / Methodology	Shot Type	Bidding Assumptions	3D Shot Cost	2D Shot Cost	Per Shot Est.	Total Shots Est
	VAL	001, 002. 003	Broadcasting, news bulletins, social media posts.	MEDIUM	3	Motion Graphics, mixed media.	MoGFX		$0.00	$0.00		
		004	A dark empty lot -- CCTV footage: liam \'s car alone.	EASY	1	Compositing CCTV overlay over live action plate.	MoGFX		$0.00	$0.00		
		005	Man with mace fights women with knife arms, after a skirmish the man is STABBED.	MEDIUM	1	Compositing solid blades on arms, digital blood.	Comp	Assume practical blades on performer, requiring clean up.	$0.00	$3,500.00		$0.00
	TRN	001, 003	MURRAY on his phone - tdm notes, network status.	MEDIUM	2	Compositing phone screens, motion graphics, mixed media.	MoGFX		$0.00	$2,500.00		
		002	LIAM at work watching his Commit Fails, error windows creating abstract patterns, organic transition to reveal the apartment.	MEDIUM	1	Motion graphics: TRIPPY COMPUTER GLITCH transition to live action plate.	MoGfx		$0.00	$0.00		$0.00

Timing

N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
concept	mograph	matte paint	track	matchmove	layout	anim	cloth	groom	fx	light	roto	paint	comp	NOTES	TOTAL (days per shot)
	1.5												2		**3.5**

TURNOVER PACKAGES

Each time you have a batch of shots ready to be delivered to a VFX Vendor, bundle these into a dated turnover package containing the following:

PULL LIST (A BATCH OF VFX ELEMENTS)

EDL (PullList) for all the elements in this turnover – this 'requests' which sections of which shots will be extracted for delivery into the VFX Pipeline.

Include the shot and element id as a comment in the EDL for automated extraction into suitable folders for each clip (each clip is a VFX Element like a foreground or background plate).

Your EDL will look something like this:

```
TITLE:   OWN1910_ILM_180619_PULLLIST_TO0037
FCM: NON-DROP FRAME
001  X075_C001_052571 V     C        15:27:57:18 15:27:59:15 01:00:00:00 01:00:01:21
*ASP_BLF_160_FG02
002  A244_C003_06248Q V     C        14:53:49:04 14:53:50:23 01:00:01:21 01:00:03:16
*ASP_SKW_130_BG01
003  A245_C002_0624J4 V     C        15:12:30:23 15:12:34:10 01:00:03:16 01:00:07:03
*ASP_BLF_120_BG01
004  C247_C002_0701CU V     C        19:02:45:17 19:02:48:11 01:00:07:03 01:00:09:21
*ASP_CTR_160_BG01
```

Tip: Do a test extract with Park Road in advance of your first delivery to vendors – we will help smooth out any tweaks required to help make the pull list process as seamless as possible.

LINEUP SHEETS – ONE PER SHOT

A lineup sheet is the explicit request for work to be actioned by the VFX house, presented as a PDF file, based on their accepted bid for each shot.

TIP: If it's possible to deliver a parsable file (such as .tab or .csv text file, or an .xslx spreadsheet) *in addition* to the lineup .pdf that will make most vfx coordinators very very happy!

The lineup sheet shows how each element in the shot lines up and what work needs to be completed. Additionally, the lineup sheet should contain information such as the LUT or CDL values for offline WIP/Final returns to editorial. Where speed effects are requested it is absolutely imperative to screenshot your timewarp graphs and share this with the VFX vendor as a supplement to the lineup sheet. All software handles time changes differently.

TIP: There is an example lineup sheet shown at the end of this document – everyone makes their own version either as a spreadsheet of as a database to create these lineups, so feel free to adapt this to suit your project's needs!

REFERENCE BASHCOMP QUICKTIME FOR THIS SHOT

This is your `v000` bashcomp, exported as a QuickTime reference movie for each shot in the turnover.

Check with the vendor for their preferred codec, H264 is normally a very bad idea for your bashcomp reference moov for the vfx vendor as timecode is not frame accurate in this format. Aften a ProRes422 or LT .mov will suffice as reference.

OPTIONAL FULL SEQUENCE REFERENCE / CONTEXT QUICKTIME

It's immensely useful to provide a scene or sequence reference – containing all the shots for this sequence in current cut order, to provide context for the shots. The individual shot names should be burned in.

This can really assist the VFX supervisor when it comes time to signoff and review in context so that a good proposed final can be presented into editorial.

SHOT-BY-SHOT CDL or GRADE LUT DATA

Where the hero element for a scene/shot has a look you wish to retain, deliver the CDL or shot LUT for that shot.

Background elements will be graded to sit within the comp, and all these elements will inherit the hero look.

Do NOT supply dailies CDL or LUT data for any element other than the hero the return should look like.

> Tip: Onset CDLs should refer to the Log source extracted from the raw camera image as presented from the video-tap on-set, or the subsequent CDL information from the primary dailies grade where there has been a more involved rushes process.

SHOW / OFFLINE LUT

If your show has been acquired on a professional camera in a high resolution raw format, then a Log-transformed image sequence (or a Log>LinearLight representation thereof) will likely be supplied to the VFX house.

They will need to know how to convert that Log images back to Rec709 so that the WIP and Final offline media they deliver into editorial continues to match the look-and-feel of the cut as they are cut in.

> Tip: If you are not sure what LUT was used, check with your dailies operator or the post facility which handled your offline transcodes, it is important that everyone is using the same transform.

Note that the full res uncompressed online media that the VFX vendor delivers to Park Road will most likely be a Log (or Linear Light) EXR sequence without the dailies grade burned in – this gives you maximum flexibility in the grade.

LINEUP SHEETS (VFX ARTIST INSTRUCTIONS)

There's a bit of an art form to these and every editor has their own needs. It's really easy to present this information just using a spreadsheet, or you can use something slightly more complicated like a FileMaker database in editorial.

The lineup sheet will likely include the following information:

A Shot Number

B TurnoverID & Date

C Shot Status

Using HFR/Online count:

D Start Frame

E Handle – Head

F Start Frame in Cut

G Total Frames in Cut

H Last Frame in Cut

I Handle – Tail

J Total Frames incl handles

K Shot Task – work required in VFX

L Shot Description – description of action per the script sometimes script scene number or page number is included.

M Grade information for Editorial returns including the transform LUT required to get from Log to Rec709 and any CDL information for this overall shot.
NB: Omit the CDL information if you are going to apply a look in offline and do not want this burned into your ProRes/DNxHD media.

For each element

N Plate/Element ID

O Flag for Hero plate

P Source Filename/Tapename Scene/Take and Description

Q Lens, Exposure and Focus Information

R Camera Information (Type, Format, Resolution, Extract parameters especially if scaled for VFX delivery)

S Respeed Information (show 100% where the shot is on-speed)

T Transform Information (show simple globally X/Y transforms here, describe key framed transforms in main task description – include guidance grid if necessary, as a separate file in the Turnover package to the VFX Vendor.

U In and Out TimeCodes @ 24 (23.976)fps – where the source media is HFR 48 (47.952)fps our system will automatically match back the additional frame at the head and provide all frames to the VFX Vendor.

V Duration in Frames @ 24fps (offline) and at 48fs (online)

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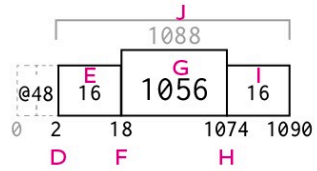
VFX SHOT LINEUP



A

SHOT NUMBER
BLF_020

BASHCOMP
THUMBNAIL

LUT for Editorial Rtn
PKRD_D65_G35Rec709_v3
M

CDL for Editorial Rtn
SAT: None
SOP: None

TASK
K Track & comp extra buildings into deep background (defocus bg to match)

SHOT DESCR
L 2 Shot Est. OTS Murray and Liam at Lookout the lights of the city in the distance

VENDOR: ILM
TURNOVER ID: OWNFX_T001
TURNOVER DATE: 20180627
B

STATUS: IN PROGRESS
C

VFX SEQ ID: BLF
VFX SHOT: 020
SCRIPT SCENE: 13

PLATES	SOURCE FILENAME/TAPENAME	SC/TK	LENS	TRANSFORM	IN	OUT	DURATION
FG01 N HERO O OPT THUMB	B024_C032_1103XY P N3D_Rushes_A_015_20161103_04 OTS the boys at the bluff	27K/2b	28mm Q T2.8 5'--	100% Speed S No Repo T	15:49:36:11 U	15:49:58:27	544fr @ 24 1088fr @ 48 V Raw Camera and Extraction Details R Dragon R3D 47.952 DC2/RLF 5568x3132 R3D —> 1:1 Debayer —> 2048x1152 EXR SEQ
BG01 OPT THUMB	Z003_C004_1224AB N3D_Rushes_PU002_20161224_01 Distant Buildings	ELEMENTS	28mm T2.8 INF	100% Speed No Repo	10:29:25:00	10:29:47:16	544fr @ 24 1088fr @ 48 Raw Camera and Extraction Details Dragon R3D 47.952 DC2/RLF 5568x3132 R3D —> 1:1 Debayer —> 2048x1152 EXR SEQ

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