

# Ivanna Mikhaylova demoreel breakdown

## Paint

### Car flip, F8 (Nuke)



The task was to paint an **un-retimed full version** of the shot **before** the final cut decision was made (to avoid multiple paint versions of the same shot). I needed to remove 3 SL cameras (areas marked), and paint out all rigs and fuel strands.

- Tracked and stabilized the shot (2d tracking).
- To remove the top crane camera, the major technique I used was time offsets moved to cover the area. I matched the grading of the fire and smoke, and painted out any obvious duplicating debris. Some larger debris pieces needed to be painted back in by hand as they continued flipping behind the camera.

- For the bottom cameras I used a mix of techniques, including tracking in painted snow (graded to match explosion lighting); tracking in painted background and distorting it to mimic the heat distortion around; hand painting and restoring the car using other charger shots as reference, and tracking it in as it flips; adding fires and explosion debris (for flying snow pieces) from the effects library and integrating them over the car and the wheel at HOS and as it starts flipping; roto-scoping and keying for matte creation to use for this paint task; manual frame by frame painting, including paint sourcing neighboring frames (difference painter) where reasonable.

- I painted out all fuel strands frame by frame.

- Rigs removal was a mix of roto-scoping, using fills where possible, tracking in patches for the charger frame and background vehicles, adding heat distortion to background fills/patches, and manual frame by frame painting.

### Prison jump, F8 (Nuke)



Here the task was to paint out the stunt's head for replacement. I used tracking, roto-scoping, transformed time offsets, frame by frame painting, and painted background patches to accomplish this shot. I made sure the motion blur on my background paint work and patches matched the rest of the shot. I also used animated grid warps to adjust for perspective changes on the ceiling and walls during the jump. I painted back his arms and hands where they were covered by the head, as well as the inside of the robe where the head and neck were. I mostly used tracked patches and frame by frame painting,

including paint sourcing neighboring frames. Same techniques were used to recreate the rail motion blur as he jumps behind it.

### Letty's fight, F8 (Nuke)



Here the task was to remove trackers from the ship and blue screen, recreate the SL rails and clean blue screen behind them (it had dirty gray mats on the floor to catch the stunt there), remove studio lights where they are behind the actors, and boom mike reflection, and clean all retime artifacts. I used tracking, roto, fills, patches, grading (including grading using animated curve from analysed source), 2d motion blur, & frame by frame painting, including sourcing neighboring frames.

### Paint and roto

### Glass shot from Suicide squad (Nuke and Stereocomposer)



Aside from the regular background cleanup, I had to put all the glass shards in depth, and make sure they looked sweet in stereo. Most of it against the walls and on the floor I was able to pull out by just averaging a few frames and using the difference to add volume. As for all the glass against the people, it had to be painted out frame by frame, and then added back on top (after I removed all the glass, minus-plus worked great to put it back on top, since all the glass shards were much lighter than the rest of the image). It was quite challenging at the time, especially on Boom's face, as I had to make sure it animated properly, and kept the actor's expressions and features.

### Step stool paint out and crane light cleanup, Lethal Weapon (Nuke, Mocha)



Here I needed to paint out the step stool, and remove the crane with the light. Pretty straight forward :)

- For the step stool, I tracked in, warped and graded a patch for the ground, added 2d motion blur, and then painted the legs by hand.

- For the crane, I used a combination of grading the light out and painting it out and then tracking the patch in. I also had to roto and colour correct the character to achieve this. I also noticed that the light produced a slight lens flare, so I removed it as well by a combination of grading it out and painting it out. After finishing the shot, I regained the painted areas with a matched grain.

## Compositing and roto of a crowd shot, Gotham (Nuke)



This quite simple shot of crowd multiplication included multiple tasks. There were three plates with crowd (FG, MG, BG) to combine.

- First, 2 other artists and I rotoed the crowd on FG and MG (split almost equally between the three of us; my part included most of the people in FG).
- Then, I used a patch to paint out the director's arm from SL of the BG plate, and removed the light artifacting from the emergency vehicles.
- I placed the crowd layers in, and did edge treatment, that included use of keyers and adding some colour/darkening the edges, edge extension, and other techniques on a per character basis where needed.
- Then, I colour corrected the crowd layers to adjust for light changes from shoot to shoot, and to counter the light wrap from bg.
- Lastly, I keyed, masked, and colour corrected the blond hair of a woman in MG to match to the rest of the shots in the sequence (she was duplicating very obviously), and removed another bright character from one of the layers.

## Roto and paint for Lucifer (Nuke, Mocha)



This shot required roto for the character and the pillars, as well as light fixtures replacement.

- First, I rotoed the character and the pillars in Nuke with the help of Mocha for some of the tracking.
- Then, I hand painted and tracked in the light fixtures from reference images from the set, and matched the defocus throughout the shot. I added the reflections and light on the walls and the ceiling by masking and grading certain areas to imitate light from the fixtures, keeping in mind which surface angles will get more/less light, the geometry of crown moldings, and how light will fall off. I also made sure the values of the lit fixtures parts are high enough to behave believably when the debris and effects get added in.
- When QCing the shot I also noticed and removed the crew hand that was throwing in some dust/rocks behind SR column.



## Hook characters and BG reveal, Pan (Nuke and Stereocomposer)



For this show, the quality bar was extremely high. That's why every shot took longer than average to finish, and a lot of attention was needed even in small areas. The scaling of FG trick was an absolute no-no.

The SL curly haired pirate with a pistol was painted by my fellow artist, the rest of the crew and BG behind Hook was done by me.

For BG I was able to use fills at the HOS as Hook comes down. The stairs and the rest of the ship were animated patches, matched in grade and defocus. The biggest challenge was the SR guy in purple clothes with an arrow in his hat, as he was shouting and emoting behind Hook, and the disparity was quite high for this shot, so we needed to see him behind well. I mostly hand painted him frame by frame, and painted from neighboring frames where possible.

I used minus/plus, divide/multiply technique for the edges.

I also restored part of Hook as he gets "eaten" by bg light source, and adjusted his roto accordingly, as it looked unnatural in stereo. I reduced artifacting of bright light in each of the eyes by carefully clamping just the occluded areas. I then placed the lens flares and effects and dust particles in depth in layers for sweet-sweet stereo effect.

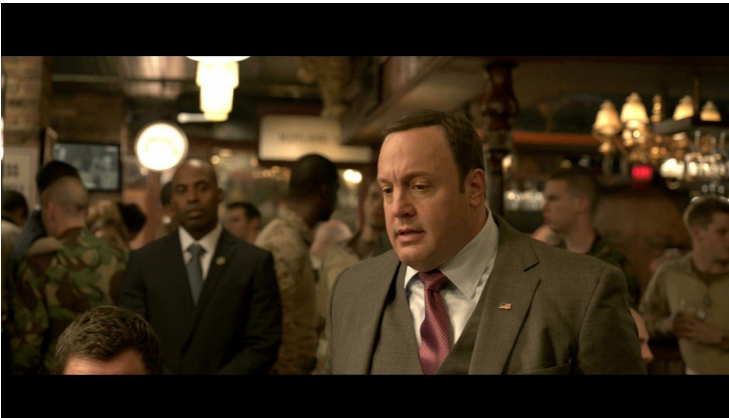
## Pan and friend crawling through the scene, Pan (Nuke and Stereocomposer)



This shot was, probably, the most labour intensive of all the shots I had on the show, and took the longest to finish. Things that needed to be painted were all the background layers, and all the kids and their faces, as they get occluded. Challenges that had to be accounted for were the changes in scale, perspective, and focus, changes in colour and lighting. I also ended up having to adjust or redo a lot of roto provided for this shot. I used a lot of tracked in patches, camera projections, animated grid warps, colour matching by the eye and by the curves, frame by frame painting, including paint sourcing neighboring frames, and fills where possible (which wasn't much in the end). When approaching this shot, I actually started with fills throughout, and then gradually replaced them in all areas that weren't working - which was most of them. This gradual approach, I feel, allowed me to focus on the most important and obvious areas first, and manage the progression of work smarter. I also used some disparity paint, and minus/plus divide/multiply techniques in semi-transparent areas

of edges/motion blur. The tricky part was that all those were merged based on depth (ZMerged), as the characters trade places throughout the shot, which was tricky to figure out as the minus/plus/divide/multiply weren't quite working with the ZMerge. So before implementing those techniques, and because they give the cleanest and most true to source effect, I escalated the problem and got help from my Supervisor for this part. The shot also ended up being a challenge from the organizational standpoint, and the script ended up being split up into manageable chunks, with multiple precomped areas to speed up processing.

### Crowd and BG reveal, Pixels (Nuke and Stereocomposer)



This was a fast and straightforward cleanup shot. BG and the people behind FG characters were painted on most revealing frames, and then tracked and animated. SL soldier in bright camouflage suite required some hand painting and frame-by-frame work due to fabric warping, his motion nature, and camouflage details.

### Elements (Nuke and Fusion)

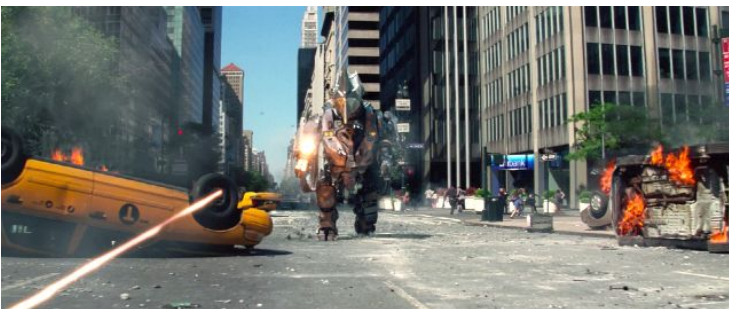


- Deconstructed client provided comps in a fast and efficient manner to extract and precomp layers, mattes, depth maps, and clean plates to facilitate and speed up the conversion process by providing elements that can be used by View-D artists, and reduce workload of the paint department.

- Re-comped the layers in Fusion to make them usable in our pipeline.

- Troubleshoot global operations, Nuke and Fusion tools mechanics and peculiarities, problems from layers separations (edges mismatches, NaN and Inf pixels, distortions and blurs, colour mismatches, alpha issues, animations, deep, plugins, etc.)

- On a per-case basis, recreated operations that aren't available in Fusion with expressions or scripts.



**Compositing, Roto, Modeling, Shading, Texturing  
(Maya, Nuke, Photoshop)**



- Modeled, shaded, textured, lit, and rendered door and railings in multiple passes.
- Cleaned the plates: painted out modern brick blemishes and plastic anchors, and the street number, put the character's arm back on top of the clean plate as he raises it. In the close-up shot, I cleaned up some skin blemishes.
- Rotoscoped the character.
- Integrated the door and railings, and used warped character's roto to create a moving reflection in the glass of the peep-hole.
- After finishing all shots in the sequence, I made sure they all match in black levels, colour, saturation, contrast, grain, and that no clipping occurs.