

SAM RICKLES

LEAD FX TECHNICAL DIRECTOR

REEL BREAKDOWN

In order of appearance.

WING CORRUPTION



- Grew corruption on dying wing curves.
- Navigated complications of managing both the corruption and FX wing elements.
- Utilized Vellum, VDB tools, and growth solvers to create organic flow mixed with curve hardening and withering.

PROJECT: *Diablo IV*

VOLCANO DESTRUCTION



- Fractured and simulated RBD collapse of volcano.
- Added volumetric elements from collapse and cracking.
- Provided additional complexity with tree and snow avalanche movement and light explosion timing.

PROJECT: *The Angry Birds Movie 2*

ICE DESTRUCTION



- Fractured and simulated RBD ice emerge.
- Added volumetric and snow grain elements.
- Fluid simulations for initial breaching splash and splashdown.

PROJECT: *The Angry Birds Movie 2*

VOLCANO



- Simulated multiple pyro elements to create massive volcanic eruption.
- Focus on element detail, combination, and explosive timing.

PROJECT: *Hotel Transylvania 3*

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WALL DESTRUCTION



- Used Digital Molecular Matter (DMM) destruction in Houdini to rip the wall from the dropship interior.
- Added dynamic movement to the wires embedded in the wall and to the hanging chairs.

PROJECT: *Edge of Tomorrow*

ELECTRICITY | GUNFIRE DEV



- Simulated electricity and sparking to time correctly with extreme animation.
- Created look and multi-shot system for stylized gunfire (did not run this shot but my template was used for it.)

PROJECT: *Overwatch - Kiriko*

EXPLOSIONS



- Simulated explosion and multiple fire trails.
- Directive was to 'make Michael Bay proud'.

PROJECT: *Hotel Transylvania 3*

EXPLOSION



- Simulated explosion and multiple fire trails.
- Added flaming debris and sparks.

PROJECT: *Overwatch 2 Announce*

EXPLOSIONS



- Simulated multiple explosions.
- Added additional debris and spark elements to tie explosions together with energy orb effect.

PROJECT: *Overwatch 2 Announce*

COFFEE FOAM



- Simulated coffee foam and bubbles.
- Used a combination of high viscosity fluid solves and VDB SDF techniques.

PROJECT: *Overwatch - Sojourn*

EXPLOSION



- Simulated multiple pyro elements for fireball explosion and fire trails.
- Added additional destruction and trailing debris bits.
- Animated timing to match cartoon aesthetic.

PROJECT: *Hotel Transylvania 3*

VOLCANO SMOKE



- Simulated and combined multiple plumes to create highly detailed underwater smoke.
- Added 'underwater bubble lava' events with care taken to match underwater physics.
- Added trailing lava smoke.

PROJECT: *Hotel Transylvania 3*

WATER INTERACTION



- Created large wave ocean spectrum.
- Simulated boat and oar interaction and stitched seamlessly with spectrum.
- Added foam and spray elements.

PROJECT: *The Angry Birds Movie 2*

GUNFIRE



- Overhauled outdated gunfire template to create a custom gunfire system for multi-gun character.
- Provided sparkling elements to communicate energy weapon versus traditional ballistic weapon.
- Simulated muzzle flashes, tracers, sparks, and impacts.

PROJECT: *Overwatch - Sojourn*

DIRT | DUST



- Ran multiple FLIP simulations to create chaotic thrashing sand effect.
- Ran additional RBD passes to add extra large chunk detail to sand particles.
- Created additional pyro simulations for clouds of dust.

PROJECT: *Edge of Tomorrow*

FLORA LEAD



- Led 10+ artist team in propagating plants and interactive ground cover for 1000+ shots.
- Developed and oversaw creation of keep alive animation variations for 300+ plant models.
- Established Houdini to Katana workflow with Lua based Katana macro to give lighters control of plant wind speeds.

PROJECT: *Smurfs: The Lost Village*

ENVIRONMENT FX LEAD



- Oversaw 8+ artist team in creation of fire, smoke plumes, and floating ash and ember elements for beach sequence.
- Developed and deployed fire layout system for 80+ shots.
- Established multiple Katana tools to give lighters additional control with FX elements.

PROJECT: *Spider-Man: Homecoming*

OCEAN LEAD



- Oversaw multi artist team in the development and execution of ocean shots, with focus on stitching with interactive elements e.g. boats and beach break.
- Created template to allow quick setup for shots.

PROJECT: *The Angry Birds Movie 2*

HOT TUB



- Simulated water, foam, bubbles, and steam.

PROJECT: *The Angry Birds Movie 2*

HOT TUB



- Simulated water, foam, bubbles, and steam.
- Managed additional complexity from extremely animated splashing character.

PROJECT: *The Angry Birds Movie 2*

WATER



- Simulated water sheeting and integration with river surface.

PROJECT: *The Angry Birds Movie 2*

SAND | DUST | EMBERS | SPARKS



- Simulated multiple pyro elements for Vulture to interact with as he comes towards camera.
- Emitted additional dust and sand from Vulture's turbine forces.
- Emitted sparks from Vulture's damaged wingsuit.

PROJECT: *Spider-Man: Homecoming*

SAND | DUST | EMBERS | SPARKS



- Simulated 'sandstorm' created by Vulture's wingsuit rotor wash forces.
- Simulated additional sand ground interaction.
- Emitted sparks from Vulture's damaged wingsuit.

PROJECT: *Spider-Man: Homecoming*

SAND | DUST | EMBERS | SPARKS



- Simulated multiple pyro elements for Vulture 'sandstorm' to rush towards camera.
- Emitted sparks from Vulture's damaged wingsuit.

PROJECT: *Spider-Man: Homecoming*

FIRE



- Simulated fire and embers.
- Directed timing to sync with Spider-Man's reaction.

PROJECT: *Spider-Man: Homecoming*

ELECTRICITY TRAILS



- Customized Electricity Trail system for unique Electro formation from building face.
- Layered multiple electricity, particle, and volumetric elements to achieve desired look.

PROJECT: *The Amazing Spider-Man 2*

ELECTRICITY TRAILS



- Modified Electricity Trail system to create a slowly forming storm that coalesces at the end of the shot.
- Layered multiple electricity, particle, and volumetric elements to achieve desired look.

PROJECT: *The Amazing Spider-Man 2*

BUTTER



- Simulated butter.
- Focused on realistic viscosity.

PROJECT: *The Angry Birds Movie 2*

EXPLOSION



- Simulated multiple pyro elements for massive fireball explosion and fire trails.
- Post tweaked temperature and voxel values to stylize the explosion to match cartoon aesthetic.

PROJECT: *Hotel Transylvania 3*

DESTRUCTION | DUST



- Simulated multiple smoke elements with care taken not to occlude characters.
- Fractured and destroyed pillar.
- Added flying debris with smoke trails.

PROJECT: *Hotel Transylvania 3*

BOOT THRUSTERS



- Ran multiple pyro simulations for boot thrusters and ignition on foreground characters.
- Enhanced effect with hot thruster core and particle simulation for sparks.
- Set up Mantra pyro material and lighting and rendered the final element for composite.

PROJECT: *Guardians of the Galaxy*

BOOT THRUSTERS



- Ran multiple pyro simulations for boot thrusters and ignition on background character's leg.
- Enhanced effect with hot thruster core and particle simulation for sparks.
- Set up Mantra pyro material and lighting and rendered the final element for composite.

PROJECT: *Guardians of the Galaxy*

DESTRUCTION | DUST



- Fractured and exploded rock geometry as character punches through.
- Ran additional particle simulations to add extra particulate detail.
- Layered additional pyro simulations for clouds of dust.

PROJECT: *Hotel Transylvania 3*

HELL ASH



- Simulated unnatural rising 'hell ash' to be placed in nearly every shot in sequence.
- Created Katana tool to allow lighting artists to easily place hell ash volumes, with additional controls for amount, speed, and size.

PROJECT: *Diablo IV*

FREEZE BEAM | ICE



- Procedural setup of freeze effect allowed for rapid implementation for multiplying the effect many times within a single shot.
- Ran RBD simulations for frozen characters.

PROJECT: *Cloudy with a Chance of Meatballs 2*

FREEZE BEAM | ICE



- Responsible for development and look of freeze beam and freeze ice effect.
- Procedurally created stylized ice crystals with SDF volumes to wrap characters fully in ice.
- Created beam with Nurbs curves converted and rendered as clustered volumes.

PROJECT: *Cloudy with a Chance of Meatballs 2*

FIRE BREATH | STEAM



- Simulated dragon fire breath and steam explosion that travels down the hallway.

PROJECT: *Hotel Transylvania*