

<p>0:06</p>	<p>'Transformers: Age of Extinction'</p> <p>Industrial Light & Magic 2014</p>	<p>Damage/destruction design & rigid body simulation. Some cloth simulations to help drive the rigid objects.</p> <p>Simulation includes the bullet casings from 0:18 - 0:26 & light posts @ 0:27. Does not include rising debris @ 0:35, or dinosaur dirt @ 0:48. Does not include particles/dust/fire/smoke.</p> <p>Rigid body sims executed in ILM's Zeno. Cloth simulations in Maya nCloth.</p>
<p>0:58</p>	<p>'Jurassic World'</p> <p>Industrial Light & Magic 2015</p>	<p>0:58 - Rigged digital double that gets eaten by dinosaur. (Maya + ILM's Block Party plugin, Zeno)</p> <p>1:01 - Dinosaur muscle/skin simulation, + post-sim sculpting. Rigid body simulation for truck toss, but the truck landing is a practical element in the footage. (Zeno)</p> <p>1:06 - Refined & maintained the dino drool/spit simulation setup, which used a tetrahedral mesh sim. Simulated the drool in-shot. (Zeno)</p> <p>1:22 - Cloth simulation setup for a bunch of tourist digital double characters. Another artist used those sim setups to do the in-shot simulation. (Zeno)</p> <p>1:31 - Fracturing and rigid body simulation for the portion of the building under the balcony. Also, set-dressed plants/vegetation all over the building and on the ground, & simmed them on top of the destruction work. (Zeno + Houdini for fracturing)</p>
<p>1:37</p>	<p>'After Earth'</p> <p>Tippett Studio 2013</p>	<p>Animated rigid body destruction of all the crystals & rocks in this sequence, utilizing Houdini and the Bullet solver.</p> <p>Developed voronoi-based fracture tools to allow rapid fracturing of numerous crystals, with fine artistic control. Devised a method of driving the RBD simulation that was easily directable, the RBD simulation that was easily directable, allowing fast and precise modifications.</p> <p>Did not animate the fine debris particles or dust.</p>
<p>1:51</p>	<p>'Captain America: The Winter Soldier'</p> <p>Industrial Light & Magic 2014</p>	<p>Designed helicarrier debris chunks & animated them with a rigid body simulation. Managed helicarrier damage history.</p> <p>Hand-sculpted additional helicarrier damage for shot @ 1:58, & added additional grinding damage motion to the helicarrier via simulation.</p> <p>Utilized ILM's Zeno, plus some Maya nCloth</p>
<p>2:14</p>	<p>'Ice Age: Continental Drift'</p> <p>Blue Sky Studios 2012</p>	<p>Look development and final animation of choppy ocean waves for this entire sequence from the film.</p> <p>Utilized a custom wrapper around the Houdini ocean toolkit</p> <p>For shot @ 2:14, I also animated the dust from the shattering cliffs. Utilized a custom shatter dust rig in Houdini</p> <p>For shot @ 2:18, I hand-animated the large wave using Houdini's geometry deformer. Also animated the ripple waves left behind by the ice boat. This shot</p>

		was featured on the Side Effects Houdini 2012 company demo reel.
2:26	'Ice Age: Continental Drift' Blue Sky Studios 2012	Animated the ice chunk splashes in Houdini, using a non-simulated noisy trajectory rig. Meshed the particles using proprietary CGIStudio renderer. Also animated the ripple from the ice chunk in Houdini
2:28	'Rio' Blue Sky Studios 2011	Look development and final animation for the falling flowers across the entire sequence from the film. Utilized expression-driven instanced particles in Maya. Created a robust and adaptable rig to quickly add the flowers to every single shot, while minimizing manual setup, allowing me to complete a large number of shots in record time. Hand-animated a few flowers/petals billowing around and colliding with the trolley.
2:48	'Ice Age: Continental Drift' Blue Sky Studios 2012	Animated the dust using a custom shatter dust rig in Houdini. Animated the smaller pieces of debris using instanced particles, also in Houdini
2:51	'Teenage Mutant Ninja Turtles' Industrial Light & Magic 2014	Cloth / muscle / rigid body simulations for the characters & their garments, for all shots except shot @ 2:53. Tower impact shapes/debris for shot @ 2:51. Tower damage sculpt & rigid body simulation for shot @ 2:53. Tower damage sculpt & wobble simulation for shot @ 2:55. Only mask simulation/sculpting for shot @ 3:10. All work done in ILM's Zeno. Some cloth sim cleanup in Maya.
3:18	'Chanel No. 5' Freelance for Hi-ReS! 2011	Developed a cinemagraph for a Chanel No. 5 perfume advertising campaign. Animated the cloth veil using Maya's nCloth. Rendered in mental ray, composited in Nuke
3:23	'Rio' Blue Sky Studios 2011	Animated the blanket & characters' garments & hang glider, using Maya's nCloth. For shot @ 3:26, also developed a simple rig to hand-animate the pendant dangling from her bikini top, and applied that motion on top of the simulation.
3:32	'Epic' Blue Sky Studios 2013	Developed the Maya nCloth simulation setup for the rat-pelt-wearing character (Dagda), and simulated him in-shot.