

Fusion CI Studios
...incomparable fx

Fusion 'Shares a Coke' with Fin!

Coke bursting from a bottle, launching through air in an elegant, dynamic, sculptured cg splash -- super slow-motion and close-up! This looks like a job for..... dynamic effects specialists, Fusion CI Studios!



When Fin Design + Effects, Sydney, Australia, (<http://www.findesign.com.au>) was tasked to create this stunning effect for an end tag for Coca Cola's "Share a Coke" campaign, they turned to Fusion to create the fluid simulations. Fusion has developed an extensive library of technologies and methods for these kinds of effects. Our clients come to us for challenging fluids work, so each project has unique, demanding requirements that pushes the bounds of existing technology and propels us to develop ever more advanced tools to meet creative expectations -- the resulting extensive library allows us a good 'leg-up' on new project work. Consequently, Fusion provides its clients with outstanding effects for about the same amount it would cost them to hire an experienced effects artist, while creating a far superior product.

Coca Cola is one the world's most well-developed and iconic brands -- everyone from a villager in a remote area of India to Donald Trump knows exactly what coke looks like, so when it's moving super slow with the camera super close-up, the cg fluids must be stellar. And of course they have to look like something you'd be excited to drink -- this is no small task with CG fluids, which are very challenging to create realistically and far harder to make look tasty.

Fusion had to create 2 kinds of mid-air cg fluid splashes for Fin: a splash bursting from the Coke bottle (which had to be sculptural and beautiful while also feeling explosive, pushing toward a chaotic feel), plus a variety of curving splashes that Fin's team could compose in 3D space in the comp to create a dynamic

"Coca Cola space". So it was up to Fusion to experiment with digital "throws" of fluid and work up a palette of shapes from which Fin's creative director could give further direction, and then select elements to build the 3D composition.

Fusion has created a wide variety of broadly similar mid-air splashes:

- Iconic crown splashes: [Fusion's Crown Splash](#)
- Milk & juice splashes: [Minute Maid NutriBoost](#)
- Paint splashes: [Epic Mickey promo](#)

Fusion's basic splash technology makes use of our "smorganic" tool, developed in-house to prevent CG fluid from breaking up into ugly swiss cheese-like holes that is typical of CG fluids:
http://www.fusioncis.com/pr_smorganic.html .

If you're a RealFlow user you can think of Fusion's 'smorganic' as RF's sheeter daemon on steroids. In addition, our splash tool finds flow edges and from these creates the little droplets and tendrils that are so characteristic of small-scale splashes. For the bursting splash, the shape was going to be so chaotic that our tool would create those features everywhere and turn it into a truly crazy shape, so we had to develop artist-friendly ways of controlling where the tendrils came off. We found a simple solution by just having artists paint over the particle cloud, highlighting those zones that would allow the creation of tendrils. Once this was done, it was a matter of creating interesting splash shapes using an array of tiny deflector planes just inside the mouth of the bottle and then running a matrix of tests to see what shapes were generated.

Here's a link to a preview selected by the Fin Design team for final render: [Bottle Splash](#)

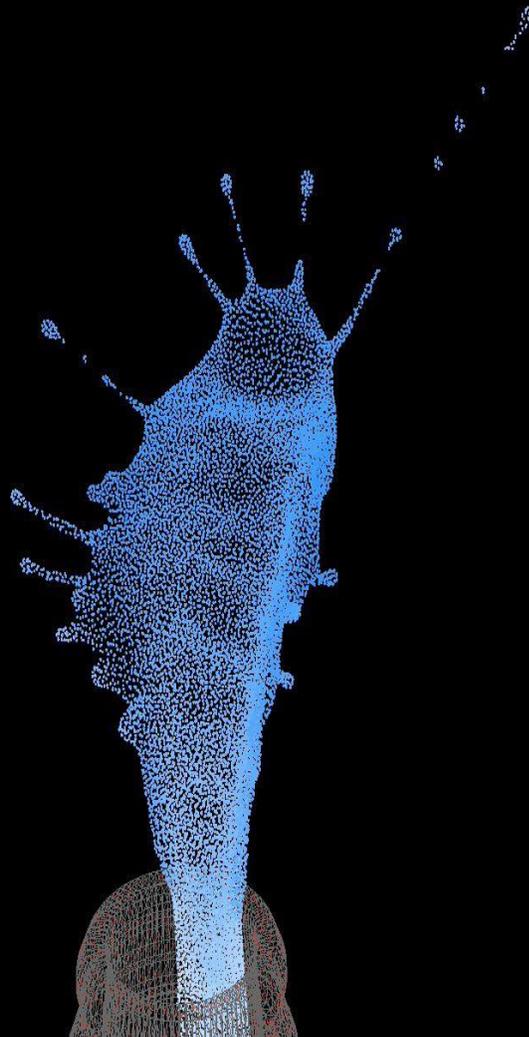
00000
Binary_Loader01 PAR:307656
227x111 V.0 F.0



The arc-shaped splash below had a shape more like what we were used to creating, so our tendril tool worked as-is for those, allowing us to auto-select the flow edges and set the number and spacing of the tendrils. The challenge with these was to get controlled, curved shapes. For these we developed a new version of a path-follow tool to guide the flows in a natural way along a path in space. Again, RF users could view this as the Dspline tool on drugs.

An early version of a splash element with this tool created an element that didn't end up being used in the spot, but illustrates the sort of look when the path was not too highly curved: [Arc Splash](#)

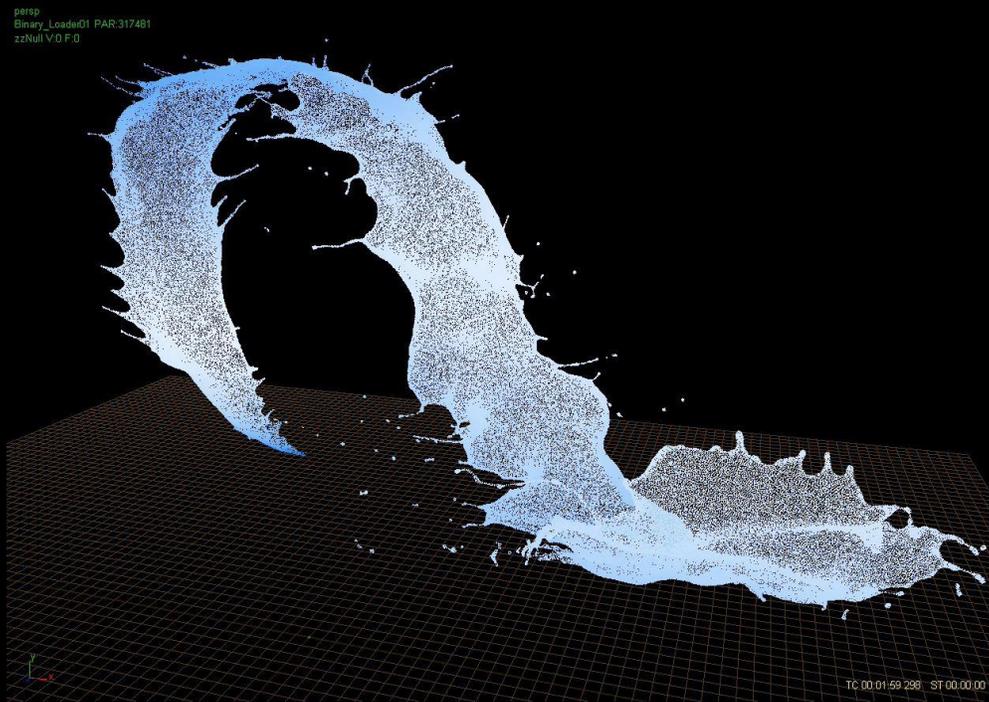
Camera01
Binary_Loaded01 PAR:18447



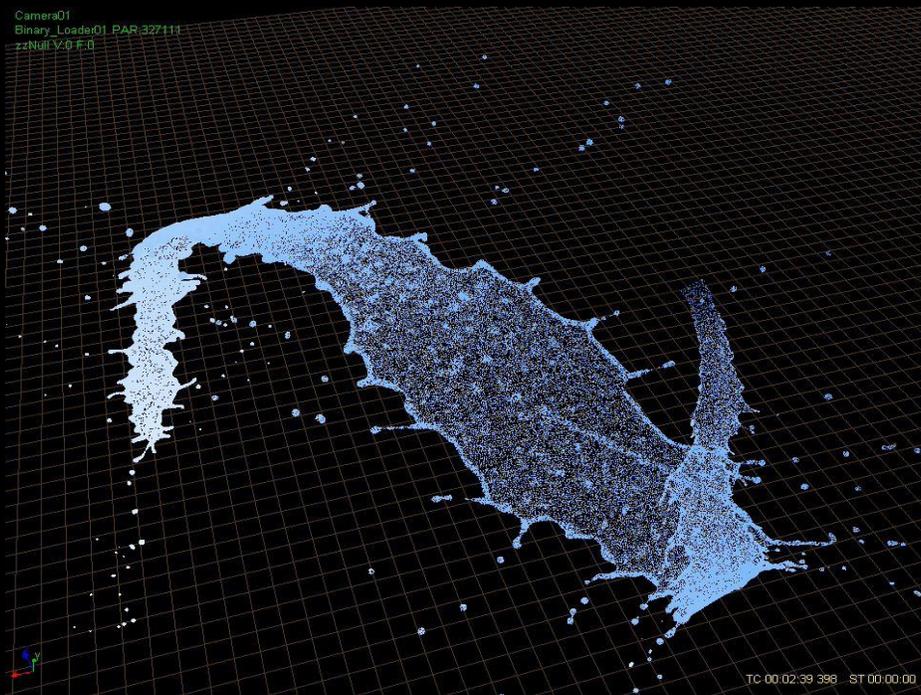
TC 00:01:07:168 ST 00:00:00

When we really cranked the path-follow tool, we got this kind of flow that you'd have to be in outer space

to even think about re-creating practically: [Arc Splash Spiral](#)



The above flow was a little too extreme for the spot, but with some tweaking we got a spiral-sweep going that had a more natural flow, while still retaining the 'magic' that can only come from CG: [Circular Sweep](#)



Fusion supplied Fin's team with a library of about 15 of these kinds of fluid simulations delivered as mesh

sequences, from which they picked out their favorite moments, added tiny particle-type bubbles to the fluid interiors, and built up the set of vignettes to create the final spot.



The final spot! [Share-A-Coke](#)

Credits:

Fin Design + Effects
Surry Hills, Australia
www.findesign.com.au

Fusion CI Studios
Santa Monica, CA
www.fusioncis.com