

(See video at <https://vimeo.com/70924774>)

The visualizer in depth

Set camera point, you get a blue mark a key frame, set a camera point. Can move the camera now. Right when the camera happens, can zoom in on the clap., If want more granularity, can zoom in like slider in Final Cut. Set a camera point there. Hit Shift L locks to track. Hit play, will execute the camera check. Drag the key frame from here to here. Hit Shift L to unlock, it means camera can move again freely, once it is locked it is for moving again, move far in the future, sweeps in and goes out the other side. , Can make it be more dramatic, unlock the track, zoom way out, delete what was there before, set it again, now will have really dramatic out. You make a wave through space, turn on lock to track and stare at what you are looking at. Shift L is the same as Lock to Track.

First start with clipping, delete the background. Z threshold min and z threshold max, scrub it, it isolates the foreground. Isolate the fan, everything from the background is gone. Get rid of the foreground can do the same thing. You can have the shadows. That is a geometry pad. Also a simplification, , turn off mesh, turn on wireframe. If you zoom in (it often gets slower, you frame rate might drop) what is actually being drawn is vertices, a grid position in space, 3D images, a distortion map. The simplification increases the distance between lines. This looks bad when you are far away, all the lines get so thick, so in the simplify pad, simplify x and Y, if you simplify Y it increases the space between each row, you introduce negative space and it is way faster. In the geometry tab that is simplification. Too dense turn up simplification, too sparse, turn down. X clipping removes the long polygons, That is in clipping, not geometry. You want to make people look like cardboard cutouts, you can turn on edge clipping. It is a maximum tolerance of how long things can get turned out. Sometimes it looks cool. In between you get striations. These effects are additive, If you draw a mesh you get both with the wireframe screen blended above it. The wireframe comes in as a little bit glowing.

You can clip the top, or the sides, get rid of stuff you don't like, maybe your camera was not covering the depth image you can clip it off, you can animate these, so if you scrub these, you can animate these to create cool wipes, in 2D like a door swinging open. Deleting all those, Rotation is pretty obvious, it lets you swing stuff in a circle, just spin the thing, it shifts the geometry in space, the rotation tab.

Rendering tab. You specify the relative brightness's of the geometry and some other things. There is a check box for all the features to turn something on and off. Check to make sure your alpha is on. If your point grid is at 0 you will see nothing. The density of point cloud is affected by this . Point size is pretty self evident. . When you are looking at things straight on it is like a grid. If you don't like a point grid you

can turn on point random, you can control and key frame the amount through random point image., the alpha and are controlled.

Wireframe is normal wireframe and it is crosshatched, it is squares in triangles, If you don't like the cross hatch, wireframe alpha and wireframe thickness, you can turn it off and start with just horizontal lines. , Horizontal scan line alpha, horizontal scan line thickness. You can just turn on vertical lines and turn on the same thickness. You turn them both on you are back to the wireframe mesh without the cross feed. .

These are affected by the simplification. Turn on both lines and points, draw a point grid, turn the alpha up, wires with little dots. , if you just had one on you would get dotted lines. That is scan line.

That is all the points line and mesh techniques of visualization.

There is a tab, self-occlude, you want negative space with no background showing through, if you don't want people to look ghostly, turn self occlude on if you want someone to pop against the background.

Wave distort. Turn it on. It sends a sine wave through the geometry turn on wave amplitude, right now the frequency is low, it is one oscillator through the geometry, it can be animated. , turn the frequency and you can turn the oscillator on. These parameters can be touchy, shift and the parameter key, better than dragging, you can also change the height, alt E will expand that track and it does not have a hot key back, but you can change the size manually as well.. Turn down the amplitude of the first one , you can see the second one.

Warp distort. Added it now. The speed it moves, smooth random noise, Perlian noise, if it wobbles too fast, you can turn down the warp speed, if you want to turn down the warp you can do that. The warp density is how large. Perilian noise is big sweeping numbers, The density is how sweeping that noise is. Warp density make it warp slower, the stretched value affects the axis's, you can change the warp stretch off , it can look a little more under control. Up for x and down for Z.

Color is self explanatory, fade the meshes, best if background mesh is off, you can get a scan line look, fade in a little of the original material, . If you click a key frame, you can get the key frame color , this color can change, not RGB interpolation, but you can , you could go into GUI in the picture , you can replace it, it is unsupported but you can do it. You can get it from a specific color pallet. . You can change the background color the same way, but stay away from background colors.

Last but not least is depth of field simulation, turn on depth of field, it is a simulation that blends optics, white is focused, black is out of focus, the parameters are distance, how wide your focal range is, blur is your actual blur that gets mixed in. Turn on blur, move the blur low, turn on the assist, make the range a little bit slower, emphasize the geometry, emphasized on 3D optics, creating a new focal

plane, that has nothing to do with the original focal optics. If you are bringing the data to Maya in 4 D a better depth of field effect.

You can change the frame height using frame feature. You can make it tall as well. This image is scaled to fit into the viewport. Default to 720 or 1080. Be careful you can crash it if you make an image too large

Render the scene, turn off depth of field, preview the camera move. Hit save composition, it is called Fan one (example) This allows other compositions, Render it, click start, step through frame by frame, it is rendering and saving it. Go into working directory, The rendering, it is the file writing out now. You set a background color it will become that color if it is not set it is alpha. Stop a render just hit

Export object fields, hit save. Copy to new. Save saves it copy to is save as. You can do create new comp, but that is back to default settings. You end up with a clean comp.

Export object files to use in may or 3D Max. Photo shop can preview the object fields Object file is a text based description of the file in 3D, they can be kind of big. Other sequences.

For QuickTime don't check any of the options, render out as you have seen it.

Let's export object fields into mesh lab. Turn on render object fields.

Other programs will let you generate a relightable surface.

Take it off the mount.

Close out of RGB Capture, go into visualizer
Import the clips from the movie into iMovie, export out as a QuickTime file.

The film made a file called Take. It is in your working directory

Calibration, find the folder Take, under take is color and depth. Take the video file, drag it into the color folder under Take

When you are in the visualizer, you have to load it in from the TOP level media bin you are using. Then load it in. Click on Take. Create New Composition from this scene

Make sure you are in synchronize on time line and temporal Alignment is clicked under video volume.