Lights, Cameras, Action: Professional Editing and Effects for Better Storytelling

Speaker Ken La Rue – Autodesk
Smoke Technical Marketing Manager

DG4500   Take advantage of the tools and techniques that the pros use on blockbuster films and television commercials to create videos and presentations that will blow your audiences away. If you currently edit video or produce renders for video, you need to attend this class. You' will see how paring Autodesk® Smoke® software for editing and effects with animation products, such as Autodesk® 3ds Max® software, enables a powerful pro video workflow for integrating high-definition video, 3D renders, and 3D data to produce results that surpass the look of standard "corporate video." Replace cumbersome workflows that require round-tripping between editing, 3D, and effects applications with the power of Autodesk products' integrated video, special effects, and 3D pipeline to deliver professional video results.

Learning Objectives

At the end of this class, you will understand:

- How video can lead to more compelling creative presentations.

- A more efficient video creation pipelines using Autodesk Smoke.

- Professional video techniques such as keying, compositing, and relighting and how they can be used in visualization.

- Take advantage of workflows between Autodesk video and 3D animation tools to build efficient processes for producing video content.

About the Speaker

Ken LaRue has been in the computer graphics industry for the past 25 years. He has taught compositing and special effects classes at DePaul University in Chicago, a variety of Autodesk resellers, and training centers around the world. He has also worked on projects with Disney Animation Studios and EA Sports. Ken is currently the Smoke Technical Marketing Manager for Autodesk

How video can lead to more compelling creative presentations.

The art of storytelling has been around as long as man has been able to communicate. A story is how we share our thoughts and experiences. There are many ways to tell a story from the written word to visuals of video and film. With the written word an author can convey any image real or non-real to the reader and the images are generates in the readers mind. But as the old saying goes "A picture is worth a thousand words". When telling your story through video or film the audience will now see a visual representation of the story and just shooting video of the charters speaking words will not tell the story. This is where manipulating and controlling the images will help to tell the story. These techniques are not limited to films from Hollywood because with today's technology we are being exposed to videos in so many different ways and each video is trying to tell its story. With the internet and mobile devices the amount of video we see on a regular basis is increasing every day. No matter if it is a video on YouTube, a corporate video, a broadcast commercial, a television show or a blockbuster film, there is a story trying to be told. As an editor or visual artist we want to take the visuals that tell the story and add effects to enhance them to complement the story and better communicate it to the audience. We want to tell the story so it becomes personal to the viewer and the end result is an experience where the audience knows the story but they have visually become part of the story. This is the art of editing and effects.
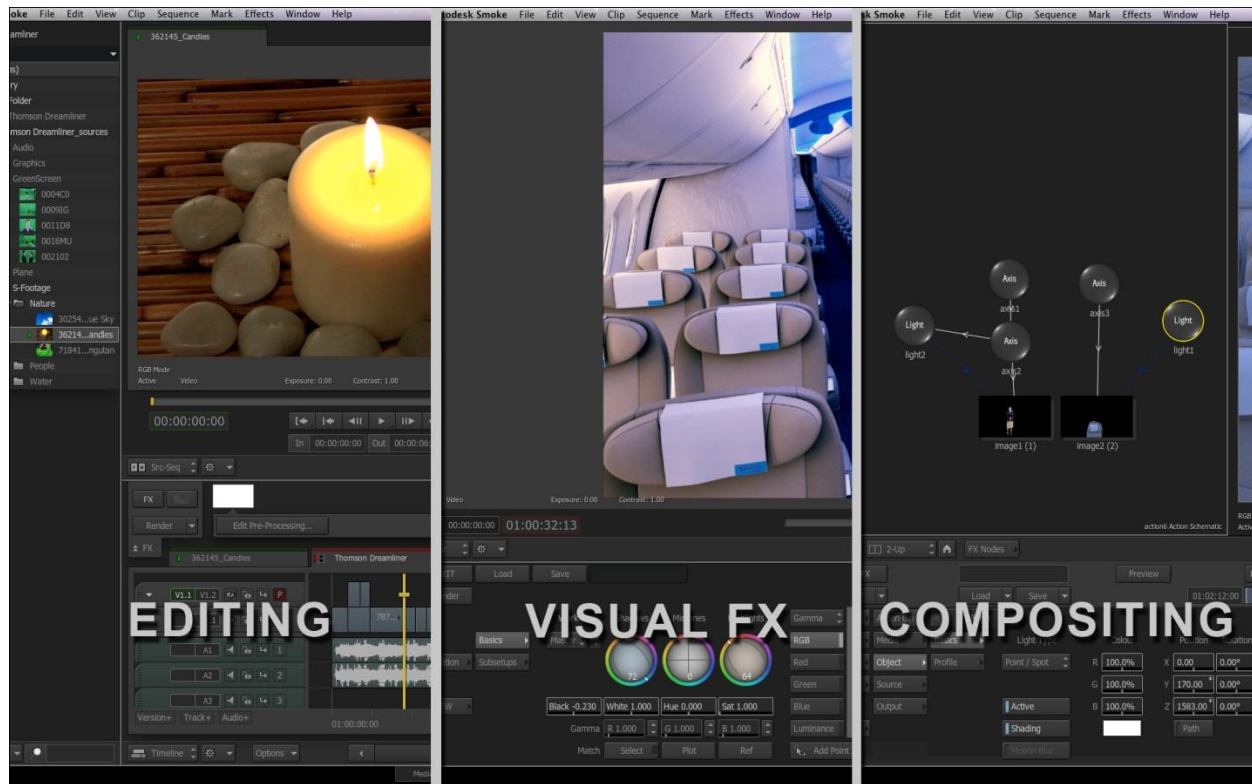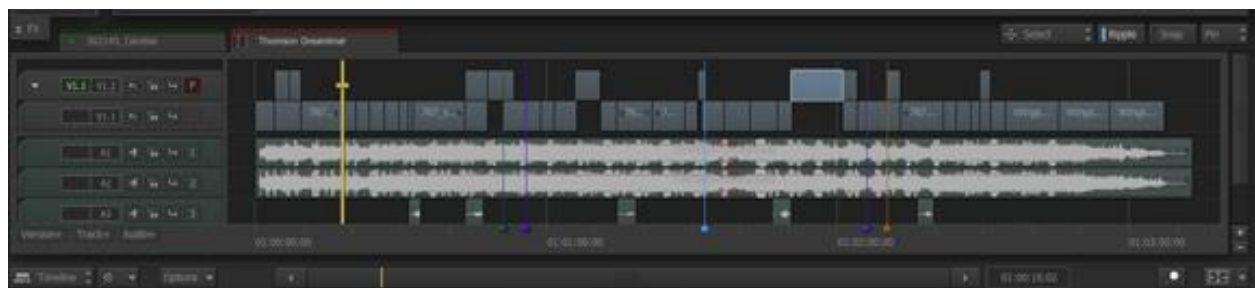
A more efficient video creation pipelines using Autodesk Smoke.

There are many tools and software options available to edit your story and there are many tools and software options to create visual effects to enhance your edited story. Smoke 2013 offers a workflow unlike any other available on the Mac platform where the editor/artist has access to editing tools and access to high end effect tools directly within the timeline. A typical workflow is to edit your story in one application and when it comes time to build composites and create special effects use another application. Once the composite or effect shots are complete the files are rendered and then the artist returns to the editing software to add the newly rendered files into the edit. This workflow is known as round tripping, and while it has been a common workflow in the past it is not an efficient workflow due to many factors such as media management, using multiple software application and just time it takes going between the applications. With Smoke 2013 you'll learn how to easily build your creative edit with the editing conventions you already know and have access to the production proven effect tools directly in your timeline.
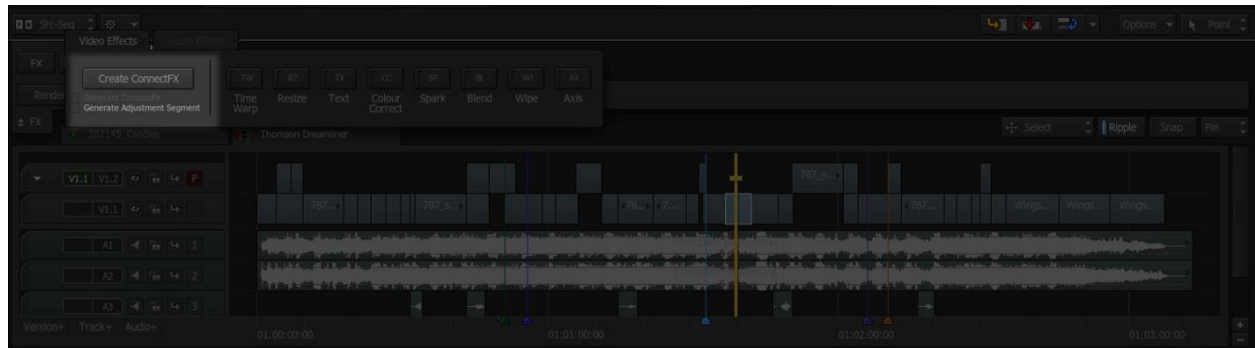
You'll learn professional video techniques such as color grading, keying, compositing, and relighting and how they can be used in visualization.


Editorial: In Smoke 2013 the familiar timeline and editorial tools allow you to quickly edit and add effects to your project. Use the timeline as your home base and work in a fast and fluid environment to deliver the high-quality results with standard editing conventions such as insert, overwrote and replace. To add effects to a clip in the timeline first select the clip and then click on the FX button to expose the FX Ribbon, here you will find a list of timeline tools such as Timewarp, Resize, Text, Color Correction, Wipes and Axis tool. Click on the tool you want to apply and it will be added to the selected clip. You can also right click on a clip in the timeline to access the FX ribbon.

Color Grading: Creating a specific look with color correction is essential on all video projects and Smoke 2013 offers production proven tools such as the Autodesk Color Correction tool and the powerful selective color correction tool name the Colour Warper. Use the FX ribbon to add a color correction tool to a selected clip and you will receive a subset of the color correction tools just above the timeline. To access all the parameters of any tool applied in the timeline click the enter editor button on the left side of the parameters and you will be immersed into the current tool. Th e image above show the Color Warper parameters once you enter the color correction tool. Use the Colour Warper create specific color corrections or specific color looks.

ConnectFX: Smoke 2013 has a full node-based compositing environment called ConnectFX. You can access ConnectFX directly in the timeline with a click of a button. ConnectFX provides a flow graph environment where you perform procedural compositing with integrated access to all effects and image-processing commands. An effect you create in ConnectFX is a setup applied directly to one or more timeline segments.
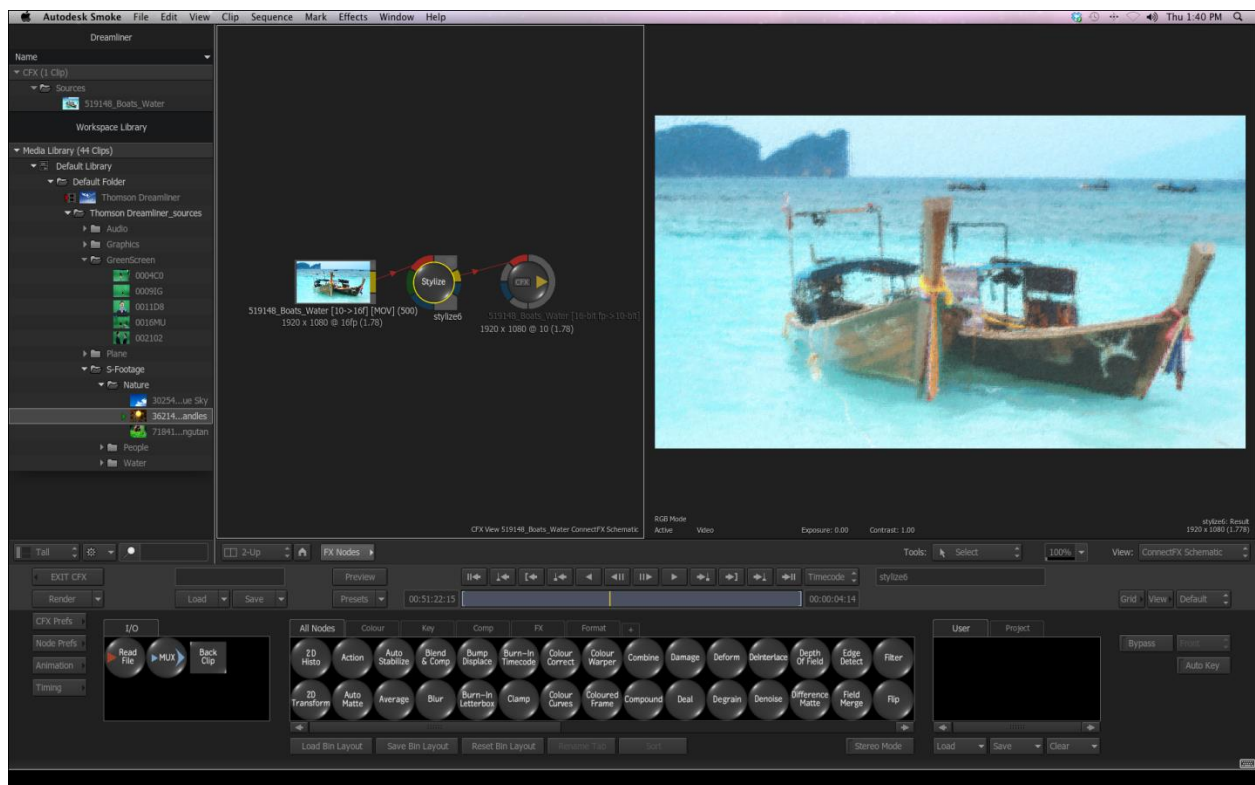

Tool Bins: The tool bins in ConnectFX allow you'll have access to an extremely large pool of tools for any job or affect you need to create. These affects can range from creating a very stylized look or building a complex 3D composite. You can use as many tools needed to achieve the desired effect and comp multiple source together using 2D compositing tools such as Blend & Comp or the 3D compositing tool named Action.
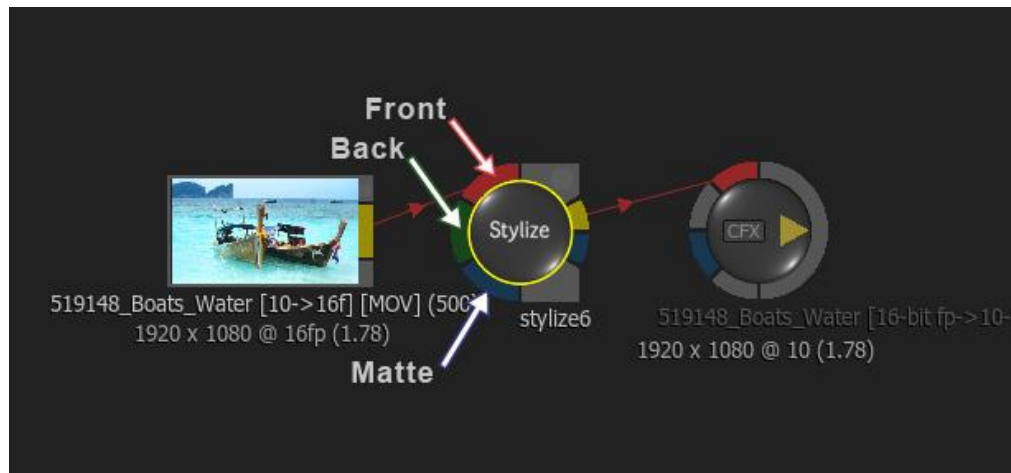
Connections are made by dragging the output of one node to the input of another node. The RBG output of a node is yellow. The colors of the inputs for a node are indicating what each input represents. Front RGB is red, the Back is green, and the matte is blue.

You use the ConnectFX processing environment to assemble a process tree of clips and nodes where the result of each operation serves as the source for the next one. Because a ConnectFX pipeline is not fixed, you have the flexibility of reordering and editing nodes. To apply a tool to your flow, select the tool from the tool bin and drag and drop it over a connection line in the flow. You can also manually drag connections from one node to another.
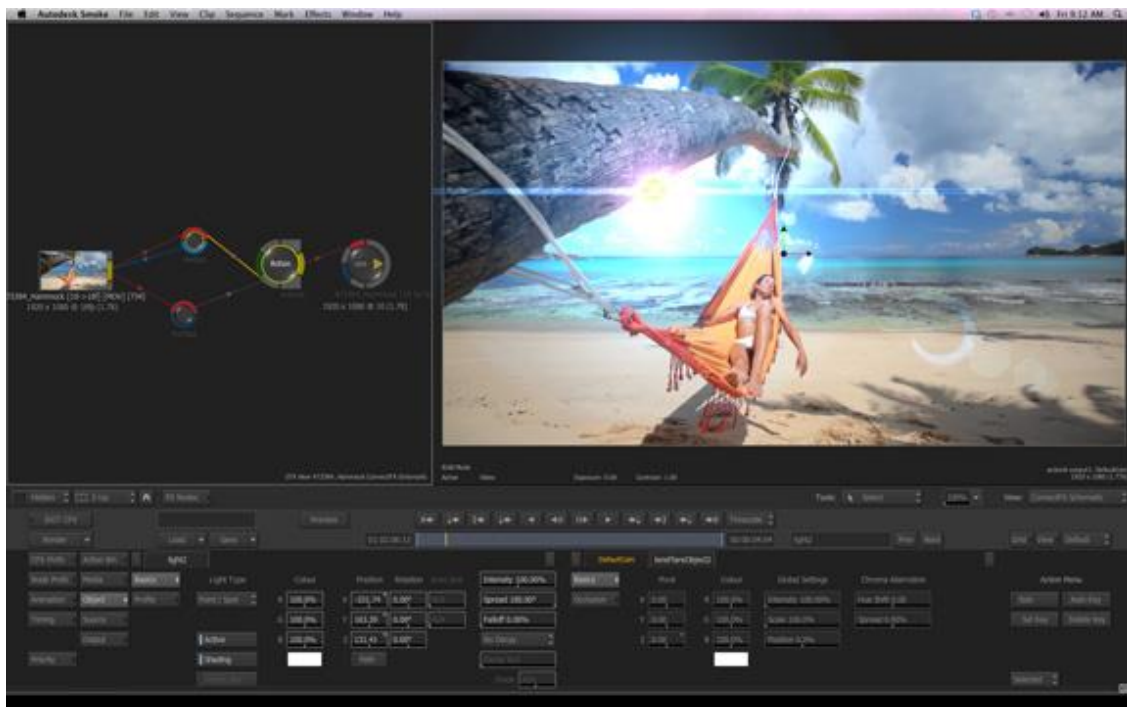
Action Tool: When using the 3D compositing tool Action, you can add the lights to relight the scene and create volumetric lighting effects such as lens flares and rays. Each action node will have one camera by default and you have full control over that camera's parameters. Each lmedia source or object you add into Action will have its own parameters to control ever aspect of that source including switching a flat surface into a extended bi-cubis which allows you to bend and model the shape if the source image in any way desired. Inside the Action tool you will have access to a schematic view which allows you to control how each element interacts and reacts to the each other. Such as controlling which sources will be affected by lights. You can add multiple axis nodes to give endless transformation control. Every element can be keyframes to create animations using traditional keyframing and tracking data.
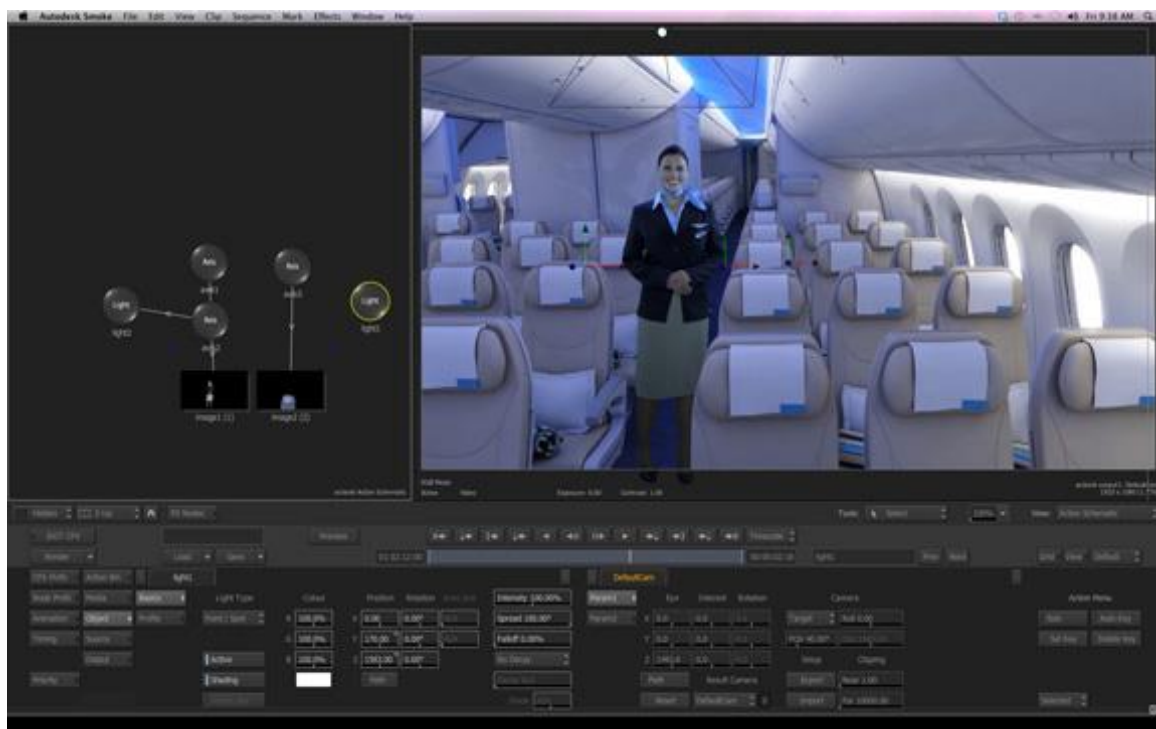
3D Visual Effects: Using the Action tool in ConnectFX you can composite live action footage, 3D renders and 3D elements together to create stunning realistic visual effects. Action is a full 3D environment with cameras, lights and the capabilities of importing image sources and 3D objects. Within the Action tool each media source you import has access to Smoke's powerful compositing tools such as the keying tools, the masking tools the tracking tools and the color correction tools. Using the FBX file format you can import 3D objects created in Autodesk 3ds max and Autodesk Maya. These 3D objects are imported with cached animation and applied materials depending onteh export setting during the export process out of the 3D applications.

Take advantage of workflows between Autodesk video and 3D animation tools to build efficient processes for producing video content.

3D Workflow: Smoke allows you to work with multi-pass renders from 3d applications such as Autodesk 3ds max and Autodesk Maya. You can then composite these different render passes to allow for easy adjustments needed to fine tune the end results of the 3D renders. You can access the multi-pass renders as individual files such as sequences files and movie files or as an EXR file containing the multi-pass renders contained in one file. Smoke will generate individual source files for each render contained within a multi-pass EXR file. These render passes can be but are not limited to diffuse pass, self-Illumination pass, occlusion pass, shadow pass, reflection pass and matte pass. Smoke allows you to composite them in a timeline or within ConnectFX. If composited in ConnectFX you can then use tools such as depth of field, blurs and color correction tools to fine to and finish your final output.

3D Import: In Action tool you can also import 3D objects and 3D scenes to combine work created in Autodesk 3ds max and Autodesk Maya with live action footage. Using the FBX file format Smoke can import the 3d objects including the cached animation, textures and geometry. Also available through the FBX file import is the 3d camera and lights created in 3ds max or Maya. The camera and light's parameters are imported including animation.

LINKS:

Smoke 2013 Home Page: http://usa.autodesk.com/smoke-for-mac/

Download Free Smoke 2013 Pre-Release: http://usa.autodesk.com/smoke-for-mac/trial/

The Area Smoke 2013 Forum Page: http://area.autodesk.com/forum/autodesk-smoke/smoke-2013/

Blog Grant Kay: http://area.autodesk.com/blogs/discreetuk

Blog Ken LaRue: http://area.autodesk.com/blogs/kenl

Blog Bran Mulligan: http://www.premiumbeat.com/blog/author/brianmulligan/

Smoke Training Page: http://smoke-training.com/

Blog Gary Davis: Smoke for the 3D Artist: http://area.autodesk.com/blogs/garyd/autodesk-smoke-2013-for-3d-artists---part-i