

NewTek LiveGraphics Creator

Documentation

Introduction

The NewTek LiveGraphics Creator extension for After Effects makes creating animated titles for NewTek live video production systems supporting LiveGraphics a simple and fun process. You don't have to be an After Effects expert to create beautiful, multi-layered, editable titles for your TriCaster or VMC1. Inside the extension, you can:

1. Import a layered PSD file with your text and graphics.
2. Drag and drop motion, text or mask presets into the intro, loop, or outro slots for each layer (or several at once).
3. Configure the speed and delay for each segment, if desired.
4. Apply the presets.
5. Export to a LiveGraphic that is ready to run on your live production system.

LiveGraphics, Structurally Speaking

NewTek LiveGraphics aren't complicated, but they are specific in the way they are built and used, so it's worth a moment to understand why things are the way they are.

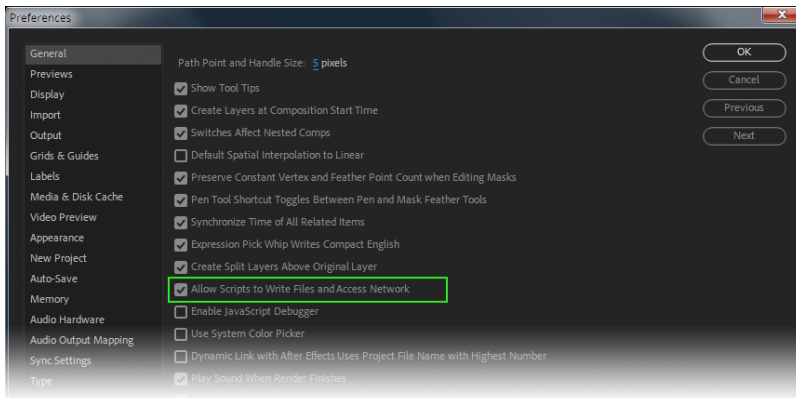
A LiveGraphic consists of three "segments" in time, the Intro, Loop, and Outro segments. Each layer in your project may have independent animations for bringing on the text or graphic, looping for a period of time, and then going back off. Once exported to your TriCaster or VMC, these layers may be turned on and off individually or in groups using presets.

When a layer is turned "on", the Intro animation is triggered to play. After completing that animation, the layer goes into its "loop" animation, which might just be sitting still, but might have a glint or a rotation. The loop will continue to play on the system until the layer is turned off. The moment that the layer is turned off, the loop animation currently playing will be allowed to complete, and then the "outro" animation will play, normally moving or fading that graphic or line of text off screen.

With this system of intelligent layers and presets, it's quite simple to make complex, overlapping animations that look great but are easy to operate.

Before you Begin

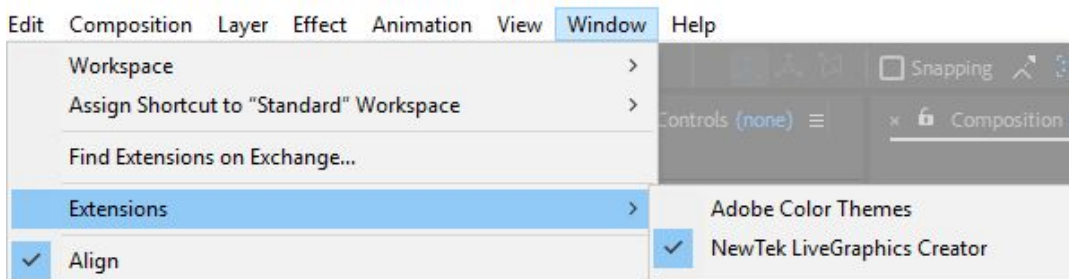
NOTE: Before running the NewTek LiveGraphics Creator extension, ensure you allow network access for scripts in After Effects, otherwise the extension will not be able to perform correctly.



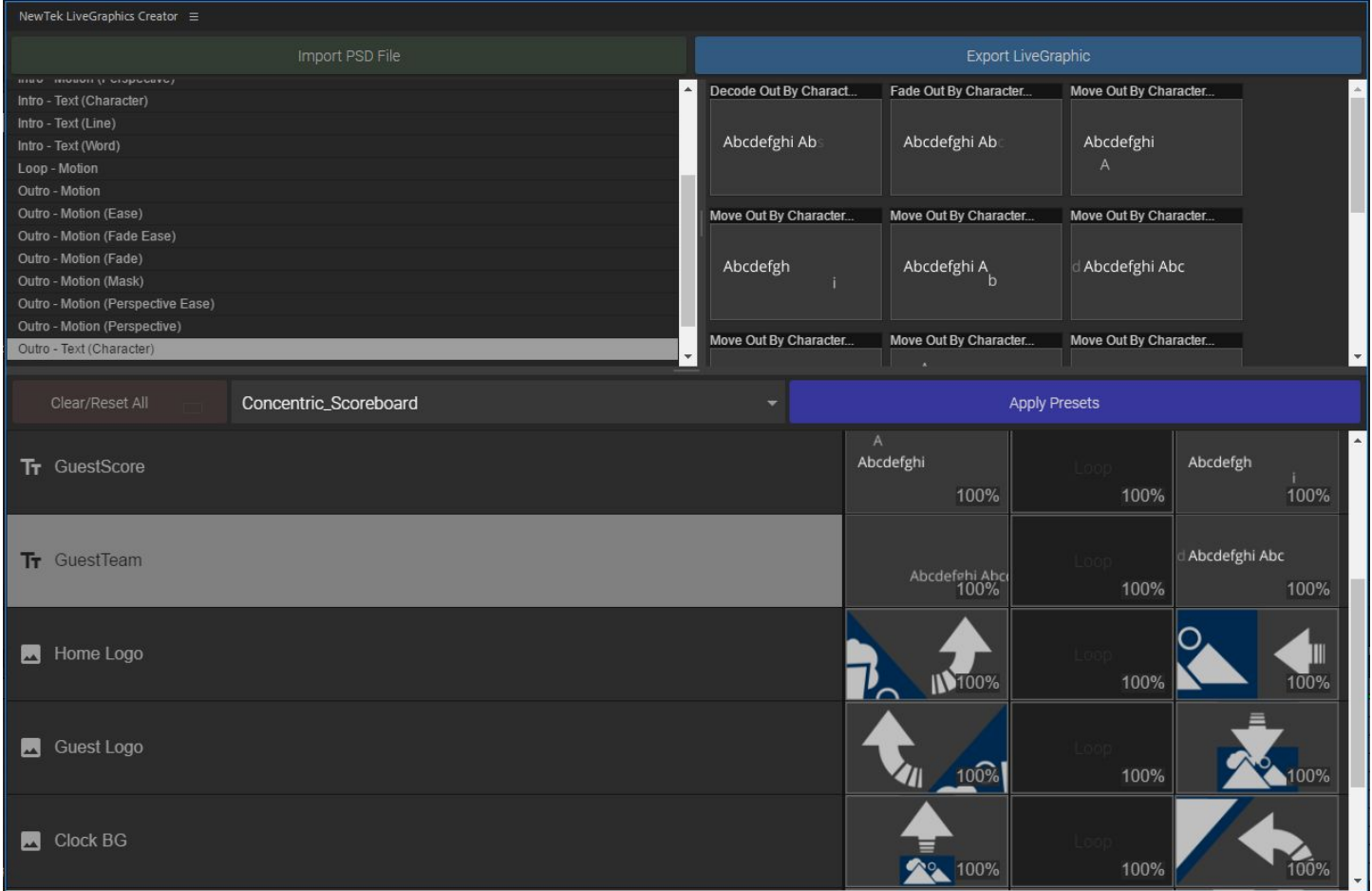
Opening the NewTek LiveGraphics Creator Interface

To open the NewTek LiveGraphics Creator extension interface, please proceed as follows

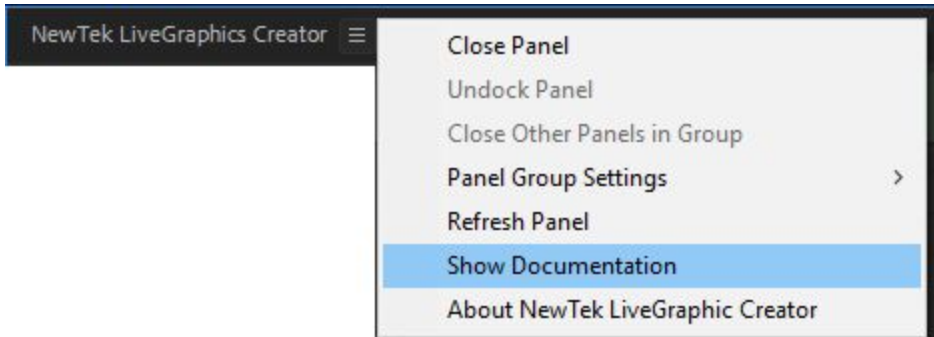
- Launch After Effects
- Go to the 'Window' option on the menu bar
- Open the 'Extensions' sub-menu, and select "NewTek LiveGraphics Creator".



Interface Tour



Panel Menu



The panel menu contains default After Effects panel options as well as entries for this extension.

Refresh Panel

After Effects panels are quite flexible in snapping and resizing, but it's possible to get them in an unusual configuration. If for some reason you see anything odd with the panel after snapping or resizing, first try a refresh. This is not destructive; your comps and presets will remain as they are.

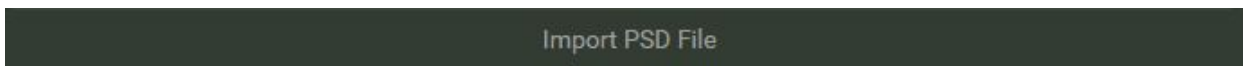
Show Documentation

Launch this help file in your default .PDF viewer.

About

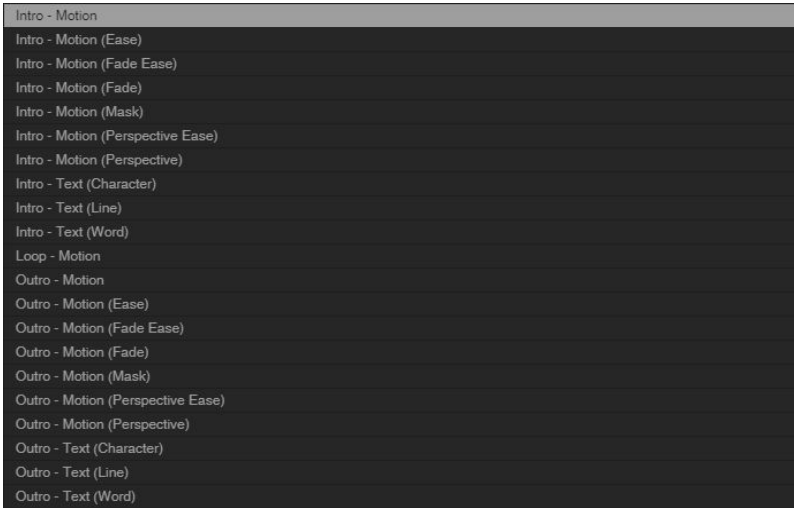
Shows the About box, which includes links to NewTek.com and the NewTek Online Store.

Import PSD File



Loads a Photoshop file and automatically creates a new composition. Note: Any open projects will be closed.

Preset List



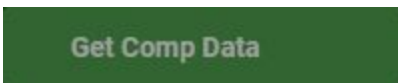
The various categories for the presets. They are grouped into Intro, Loop, and Outro presets.

Preset Thumbnails



Once a category is selected, its presets are listed on the right hand side. These presets contain the various animations you can apply to text and graphic layers. Simply drag and drop a preset thumbnail onto the appropriate 'slot' on a layer to assign that preset to it. More on that in the layers section below.

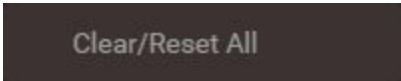
Get Comp Data



Scans for compositions in your After Effects project and updates the composition list and layers within them.

You will need to click this if you loaded an After Effects project and then ran LiveGraphics Creator (instead of beginning by using the Import PSD File button).

Clear/Reset All



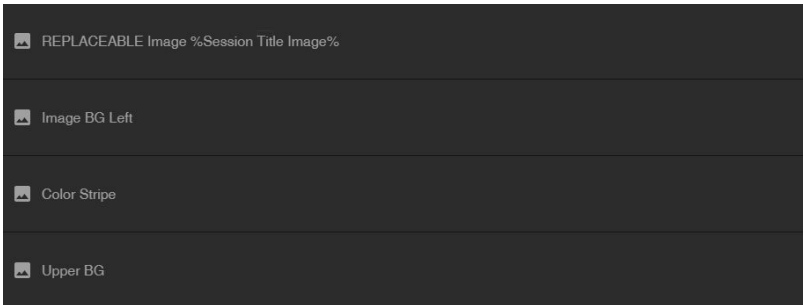
When you have layers present, either because you clicked the "Get Comp Data" button or you loaded in a Photoshop file, this button clears out all existing animations and re-scans the compositions and layers ready to start fresh.

Composition Popup



If your After Effects project has multiple compositions, this menu allows you to select which composition's layers to work on. All composition presets are stored, so you can switch to another comp and switch back at will without losing anything. Only one comp - the comp selected here - can be exported at a time.

Layer List

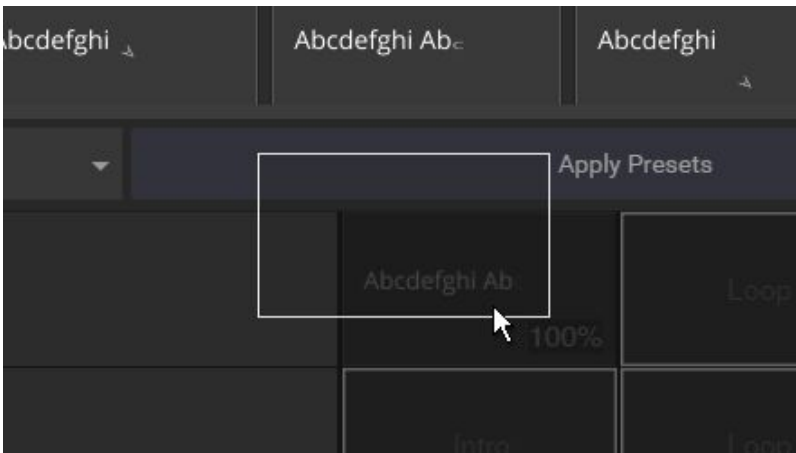


The lower portion of the interface contains a list of all the layers in your selected composition.

To the right hand side there are three slots for each layer, these represent "Intro", "Loop" and "Outro".

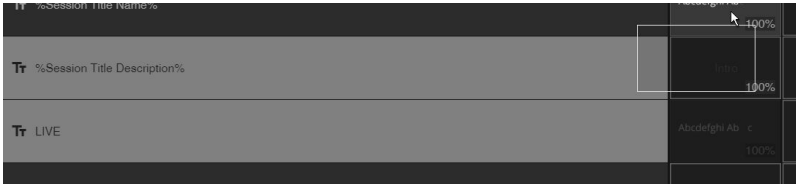


To assign a preset to each of these slots, drag and drop the motion preset of your choice onto the appropriate slot for each layer. The slots will only allow you to drop matching types onto them, so you can't accidentally drag an intro preset onto an outro slot, or a text preset onto a graphic layer.



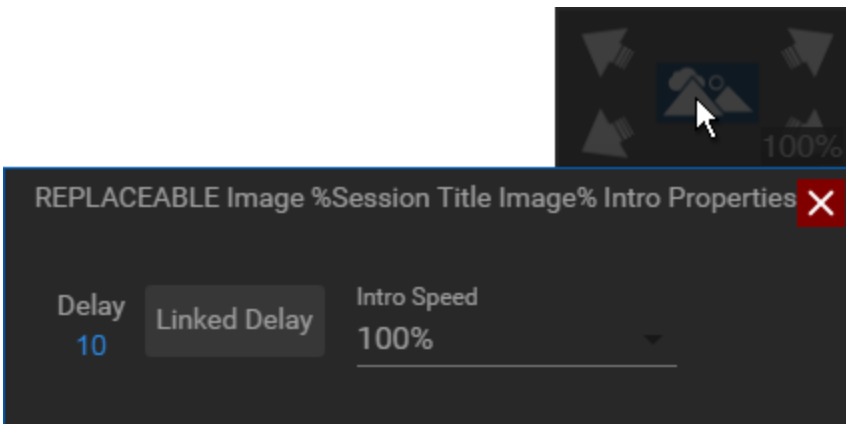
Selecting a layer and holding down the Shift key will allow you to multi-select a range layers. Clicking layers while holding down the CTRL key will select / deselect a layer. CTRL+A will select all layers.

When dragging a motion preset onto multiple selected layers, all selected layers will be assigned that preset, unless it's an invalid combination..



Delays and Playback Speed

Clicking on the slots for the layers opens an options window for that particular slot.



Playback Speed

This control allows you to specify how fast or slow from the original speed to play the motion preset. Presets are typically, though not always, designed to be 2 seconds/60 frames long at 100% speed.

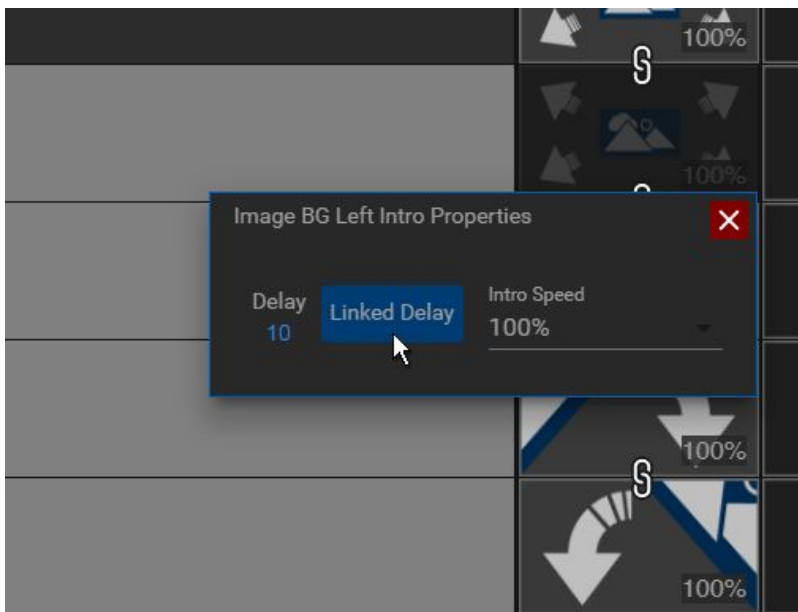


Delay

Allows you to specify (in frames) how much delay passes before this segment of the motion preset begins. This delay would occur between the time the operator turns the layer “off” or “on” and the time the preset animation would play. Generally this is used to offset a layer from other layers when turning many layers off and on at time using a Layer Preset on the TriCaster or VMC system.

Linked Delay

Any layers set to “Linked Delay” will add the delay of the animation of layer directly above it to its own delay. This is handy for animating certain layers in sequence. For example, a bullet list of text items. You would select them, link the delays and set the delay to the length you require. Each layer will then animate one after the other. Linked Delay is relative from each layer to the layer directly above, but the effect does stack. For instance, if you had three layers, each with Linked Delay on and a delay of 10 frames, the first layer would be delayed 10 frames, the second layer 20 frames, and the third layer 30 frames.



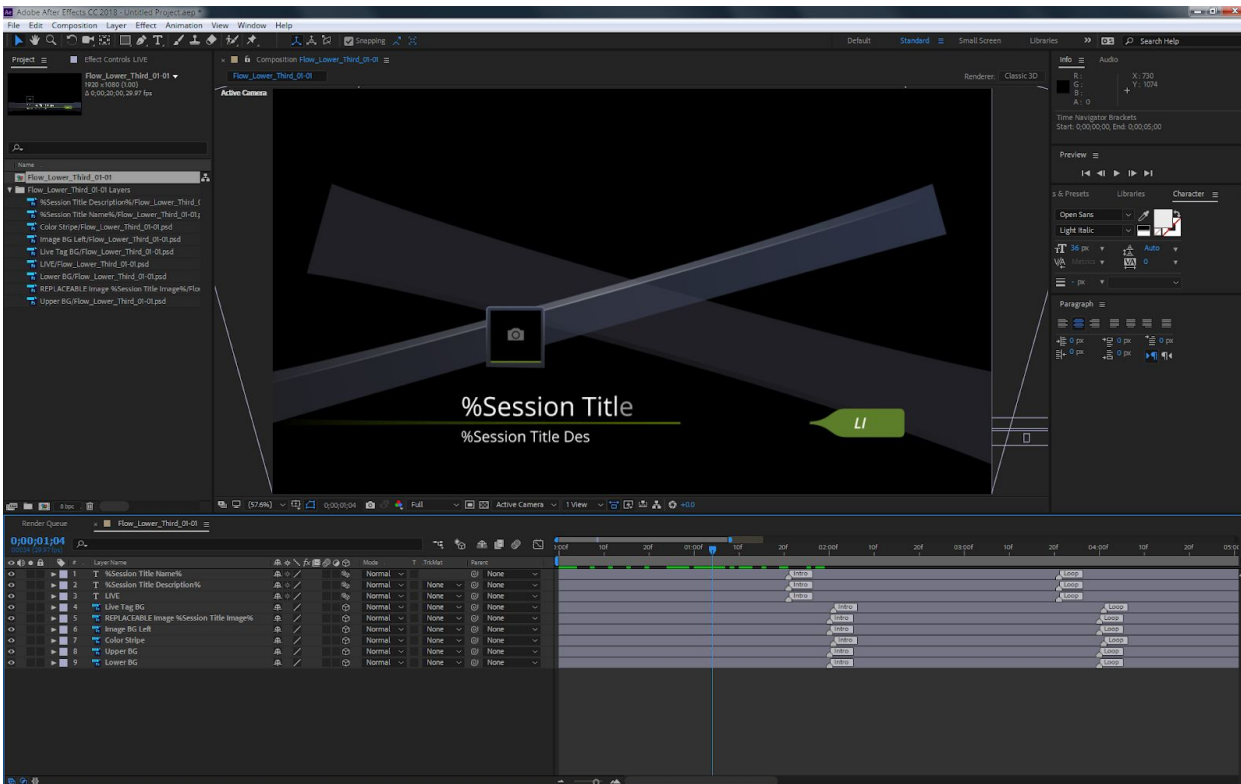
Apply Presets

Apply Presets

Once you are finished editing, click "Apply Presets" to set the various motion presets on the composition layers.

You can then use After Effects's own preset controls to preview your work in the After Effects composition window.

You can close and reopen the LiveGraphics Creator window at any time to continue editing your project. However, presets are not saved with your composition; once you've closed a project and/or loaded a new project, you should do a Get Comp Data or a Clear/Reset all to start fresh.



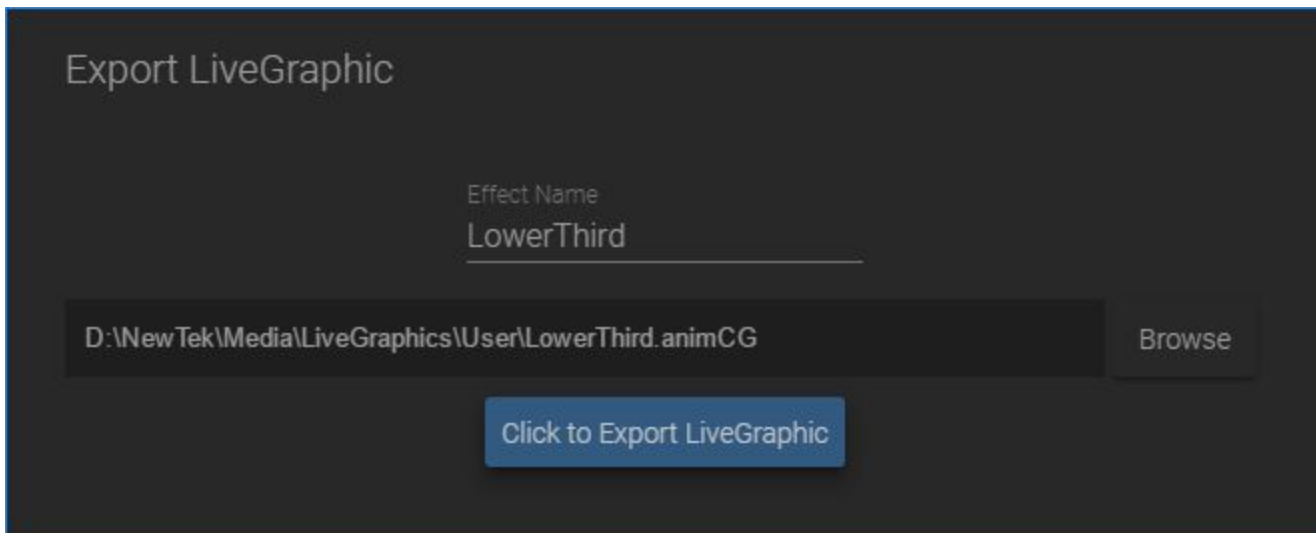
Exporting

Export LiveGraphic

Export LiveGraphic

This will be the last step after finishing your project. This will export your composition to a LiveGraphic (.LiveGfx) file and folder that can be loaded onto your TriCaster or VMC.

Clicking this button presents a requester to let you name the LiveGraphic file and save location.



Installing LiveGraphic Files On The TriCaster or VMC

To install the exported LiveGraphic files on the TriCaster/VMC, it is recommended you place the files and folders generated into the following location in your switcher's content, so that they appear in the Media Browser.

The location can be found by typing %programdata% into the address bar in a Windows Explorer window.

Inside this folder you should then navigate to:

/NewTek/Media/LiveGraphics/

It's recommended that you make a 'User' folder here and copy your files into that. It's not required, but for organizational purposes, it's a good way to distinguish your files from others on the system.

A LiveGraphic consists of one file and one folder of containing content. Both are required, in the same place, for them to function on your switcher. For instance, if your LiveGraphic is called "Lower Third", you will have a file

called “Lower Third.LiveGfx” and also a folder called “Lower Third”. Make sure to copy both of these into your destination folder.

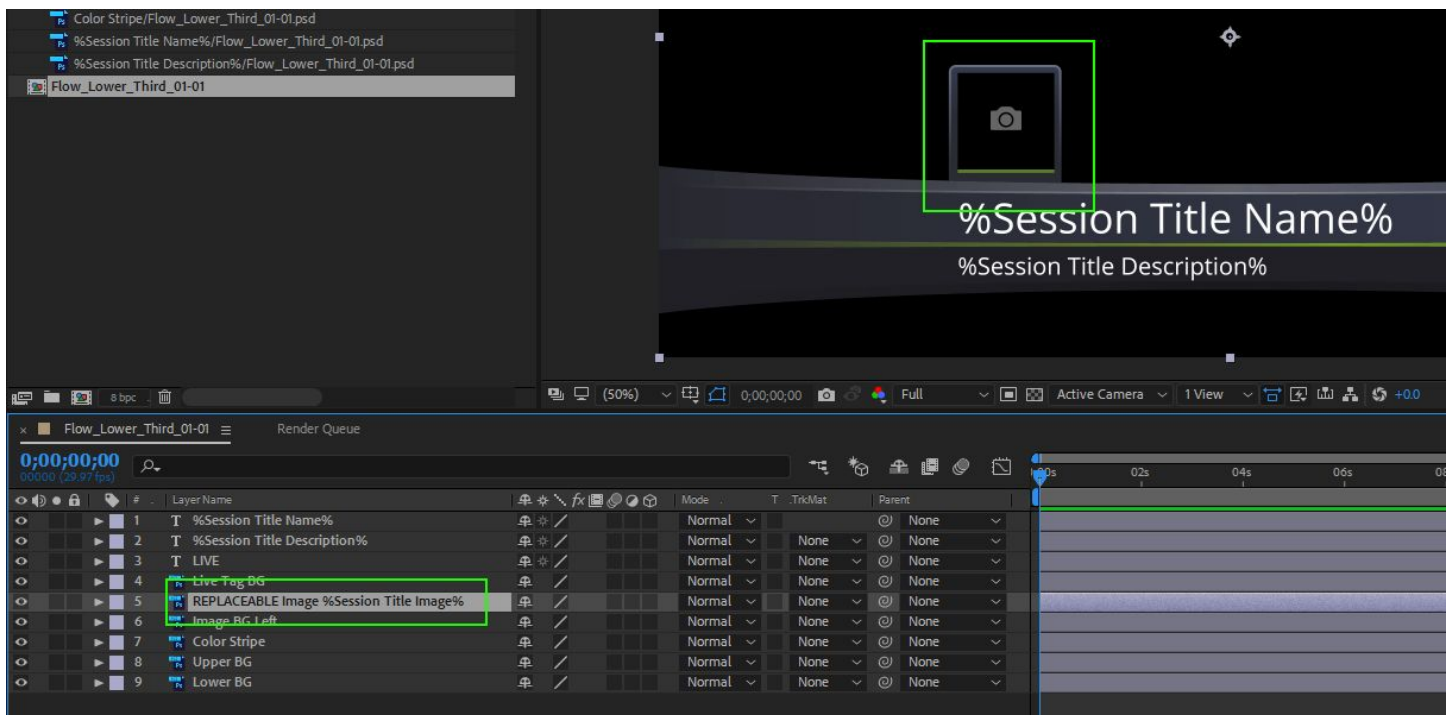
Now when you open the Media Browser in your switcher, you’ll find your Live Graphic under the LiveGraphics / User folder (or whichever folder you made).

Advanced Usage

The following information covers more advanced usage topics including creating your own LiveGraphics and using pixel effects on layers.

Replaceable Images and Datalink Keys

To have images in your LiveGraphic be replaceable on the TriCaster/VMC, you need to ensure that the layer name in After Effects for the image(s) you want to have replaceable have the word REPLACEABLE (in capitals) in the layer name. When loaded on the system the REPLACEABLE label will be stripped out, leaving just your desired layer name.



You can additionally add a Datalink key in the layer name to have the replaceable image pre-populated with any image Datalink, in the example above you can see we are using the %Session Title Image%

Datalink Text

Putting a Datalink key in the text content of a text layer will make that key available immediately on loading the LiveGraphic on your system.

Using After Effects Templates From Other Sources

While the LiveGraphics Creator extension allows you to import Photoshop files as a starting template, animated After Effects templates created yourself or those from online stores can also be created or adapted for use in this system.

In such cases you would use Get Comp Data to read the composition data and select the comp to work with, but would skip the presets part of the extension and just use the Export function. However, there are certain considerations and limitations to take into account, discussed next.

Ensuring Editability On The TriCaster/VMC

When you come to use your exported LiveGraphic on your TriCaster or VMC, it is important to understand that most After Effects “Pixel Filters” - those effects such as Blur, Levels, and Advanced Lightning that appear in the Effects menu - cannot be re-created as real-time filters by the switcher. These effects usually **can** be used in your exported title by ‘baking’ or rendering to graphics, which will happen automatically upon exporting (and is discussed in further detail in the next section). However, this means that any affected text layers will not be editable on the switcher, only in the original After Effects project.

As an example, using layer transforms such as position, scale and rotation to position your text in 3D space would work fine and still leave the text free to edit in your switcher. However, using the Distort > Corner Pin effect to place a piece of text would force that layer to be rendered into graphics and the text could not be edited once in the TriCaster or VMC.

If you find your layer uneditable on the switcher, first try removing any effects applied and re-exporting.

Effects Compatibility

The same constraint as text applies to shapes, solids, and other graphic elements with effects applied; most effects can be used and will be rendered to graphics layers that will play on the TriCaster or VMC without retaining any editability. You can turn them on and off and make them loop, coordinate their animations with other layers in your project, you just won’t be able to alter their content on the system.

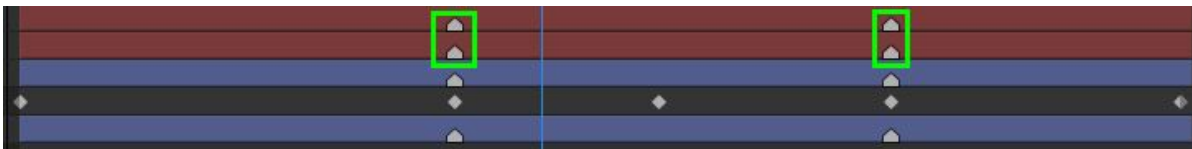
The massive number of effects plugins available for After Effects makes an exhaustive list of which do and do not work simply impossible. You’ll just have to give them a try!

Layer Styles

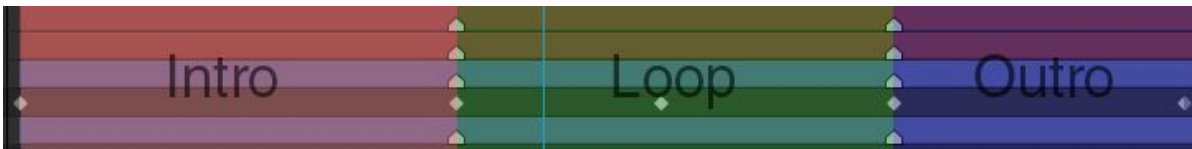
Most Layer Styles, that subset of common effects such as Drop Shadow and Glow accessed through Layer > Layer Styles, can be used on graphic and text layers and the layer’s content will retain its editability. However, only the starting parameter of the style will be used; if you animate the distance or angle of a Drop Shadow, for instance, that animation will not export into the LiveGraphic.

Making your Mark

As mentioned before, each layer is separated into Intro, Loop, and Outro segments. Those segments are delineated using Layer Markers. Markers in After Effects are generic layer properties that allow a user to mark a certain place in time on a layer or in the timeline itself. For the NewTek LiveGraphics system, they are used to mark the end of the Intro segment and the end of the Loop segment. If you are making a LiveGraphic by hand or using a pre-existing project, you'll need to place these markers in order for the system to know when to do what it needs to do for each layer.



The first “mark” of a layer is the In Point. Between the In Point and the first Marker is the Intro segment. Between the two Markers is the Loop section. Between the second Marker and the Out Point is the Outro section. (Any further Markers are ignored)



If no markers are placed on the layer, the layer can still be turned on and off in the switcher, but it will simply snap on or off with no animation.

Making LiveGraphics Titles Using After Effects

The TriCaster ships with numerous LiveGraphics titles for your use already, but for more advanced users who want full control, you can use After Effects to create your own exciting LiveGraphics titles. This guide explains what you need to know .

Starting A Project

To begin your title project you can either use After Effects' drawing and text tools to design your title, or design them in Adobe Photoshop and import into After Effects. Any item in your title design that you wish to animate needs to be on a separate layer in Photoshop or After Effects.

Layer Structure

Each layer in the exported composition in After Effects will appear in the TriCaster Buffer Editor window as a layer that can be turned on / off. If a layer has animation, hiding or showing that layer in the TriCaster will invoke that layer's animation.

Datalink Keys / Replaceable Images

Text layers that have Datalink keys in the text will be replaced by the Datalink value on the TriCaster (if present), similarly, any image layers with 'REPLACEABLE' in their layer name will become replaceable in the Buffer Editor on the TriCaster. Replaceable image layers that also have a Datalink key in the layer name will automatically be changed to the corresponding Datalink image on the TriCaster.

Managing Layers

To tidy up the number of layers that appear in the TriCaster Buffer Editor window, layer items that are part of the same element in your design can be grouped into a pre-comp, the pre-comp name will be what appears as a layer in the Buffer Editor window on the TriCaster.

Loop Markers

Once your design has been finalised, you need to ensure the TriCaster knows where your title animation begins, where it loops (if your design has a looping animation), and when it ends.

The start of the composition marks the start of the intro portion, two markers then define the loop portion, finally, the end of the timeline denotes the end of the outro.

Note: All layers in a title design MUST have the loop markers in the same position.

Baking

Common properties for layers such as transforms, opacity, layer masks (non-text only), track mattes (non-text only) are supported, as well as the 'Color Balance (HLS)' effect for animating color. Any unsupported effect or property change applied to layers will result in that layer being 'baked' into frames, this means any layers you wish to remain editable in the TriCaster; such as text or replaceable images will no longer be editable.

Fonts

Any fonts you use in your title design must also be available on the target TriCaster otherwise they will be replaced with Arial. Missing fonts will be shown in red in the font selector in the Buffer Editor window.

Using Templates From The Web

You can download template files from websites such as Videohive etc. but be aware that these templates can be setup in many different ways depending on how the author sets up their templates. You will almost certainly need to adjust them in order to make them work correctly for the LiveGraphics requirements.

If any templates use Expressions to modify properties that are not supported, you will need to remove them to avoid unexpected results. Expressions that modify supported layer properties should work just fine.

The same applies to unsupported Effect plugins; layers with unsupported Effect plugins applied will either be baked into frames or might need removing altogether depending on what the plugin is doing.

Due to the many plugins for After Effects, it's practically impossible for the TriCaster to replicate everything they do, so be aware of this when using downloaded templates.

Project Example

Let's take a walk through turning a static layered Photoshop file into an animated LiveGraphics title.

Importing The Photoshop File

Grouping / Naming Layers

Animating Properties

Creating Masks

Setting Loop Markers

Exporting LiveGraphics Files

Loading LiveGraphics Files On Tricaster

Making Presets

Converting a Downloaded Template For LiveGraphics