



LiveGraphicsTM

Realtime Motion Graphics
for Live Video Production

Instructions

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Section 1 INTRODUCTION AND SETUP



This section introduces NewTek LiveGraphics Creator™, NewTek’s powerful extension for Adobe After Effects® that allows you to create colorful LiveGraphics™ – animated title and graphic effects that support dynamic realtime playback, control and updating. You will also learn about the basic structure of LiveGraphics, and learn how to install and configure the LiveGraphics Creator extension.

1.1 WELCOME

Thank you for choosing this NewTek™ product. NewTek is extremely proud of its record of innovation, and its commitment to excellence in design, manufacture, and superb product support. NewTek provides many of the most advanced live video tools available, and LiveGraphics Creator™ plays an important role in this production ecosystem.

1.2 INTRODUCTION

NewTek’s LiveGraphics Creator for After Effects® makes creating animated titles and motion graphics for supporting NewTek live video production systems simple and fun.



FIGURE 1-1

You don’t need to be an After Effects® expert to create beautiful, multi-layered, editable LiveGraphic™ titles for your TriCaster or VMC1. LiveGraphics Creator supports two principal ways to create great looking LiveGraphics, as discussed in the next section.

1.3 TWO WORKFLOWS (ONE FOR ME & ONE FOR YOU)

1.3.1 SIMPLE

This approach takes full advantage of LiveGraphics Creator's automated capabilities to add effects to your animated titles and graphics.

- Begin by importing a layered Photoshop® PSD file into LiveGraphics Creator or, alternatively, by bringing an existing After Effects comp into LiveGraphics Creator.
- Add animation to any of the project's layers by dropping effect presets included with LiveGraphics Creator on them. Or you can use the SmartBuilder™ feature to make all the decisions for you.
- In either case, when you are happy with the result, the only additional step needed is to *Export* it as a LiveGraphic title template, ready for use with your NewTek live production system.

1.3.2 ADVANCED

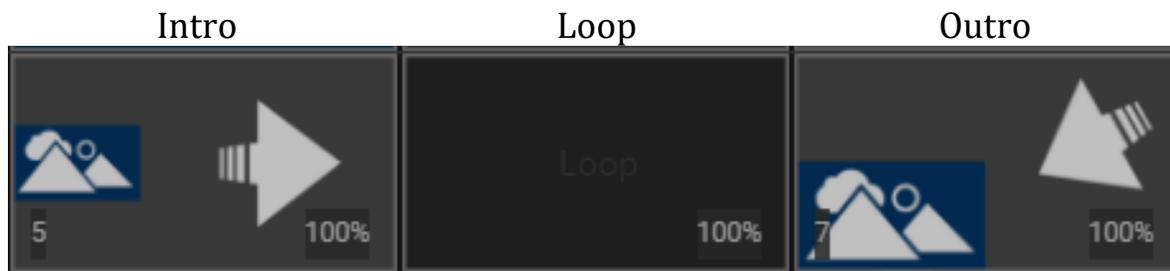
After Effects® experts may prefer to manually create an After Effects project that conforms to LiveGraphics requirements, and then use LiveGraphics Creator to *Export* it as a LiveGraphics title, completely ready to use with your NewTek live production system.

Hint: You could use a hybrid method, starting with the simple workflow to save time, then working in After Effects to add further animation and fine tuning, finishing up by exporting using the LiveGraphics extension.

1.4 INTRO, OVER AND OUT!

LiveGraphics™ aren't complicated, but do need to conform to a few simple design requirements. Let's spend a few moments to understand their organization.

Each LiveGraphic template includes one or more graphic layers organized in three consecutive segments referred to as the *Intro*, *Loop*, and *Outro*. Each project layer can have independent animations for bringing its text or graphic content (*Intro*), looping for a period of time (*Loop*), and then being removed from display (*Outro*).



After export, the user interface provided for LiveGraphics by supporting NewTek live production systems allows you to toggle the visibility of each individual layers (or layer group) manually or by using layer presets.

- Turning a layer on automatically triggers its *Intro* animation effect, introducing layer content to view.

- When the *Intro* animation completes, the *Loop* segment commences, and any animated effects applied to that segment (such as a looping rotation, or perhaps an animated glint) begin.
- A layer's *Loop* effect(s) repeats indefinitely until turning the layer off – again, either manually or by the application of a preset – invokes the *Outro* effect.
- Note that a *Loop* animation that is underway when the layer is turned off is allowed to complete its cycle before the *Outro* animation plays, typically to remove layer content from view.

With LiveGraphics' simple system of intelligent layers, plus easy controls and presets, it's quite simple to deliver complex, overlapping animations that look great but are extremely easy to operate.

1.5 DISPLAYING LIVEGRAPHICS™

As mentioned above, NewTek live production systems supporting LiveGraphics make displaying and controlling your animated title and graphic pages a breeze.

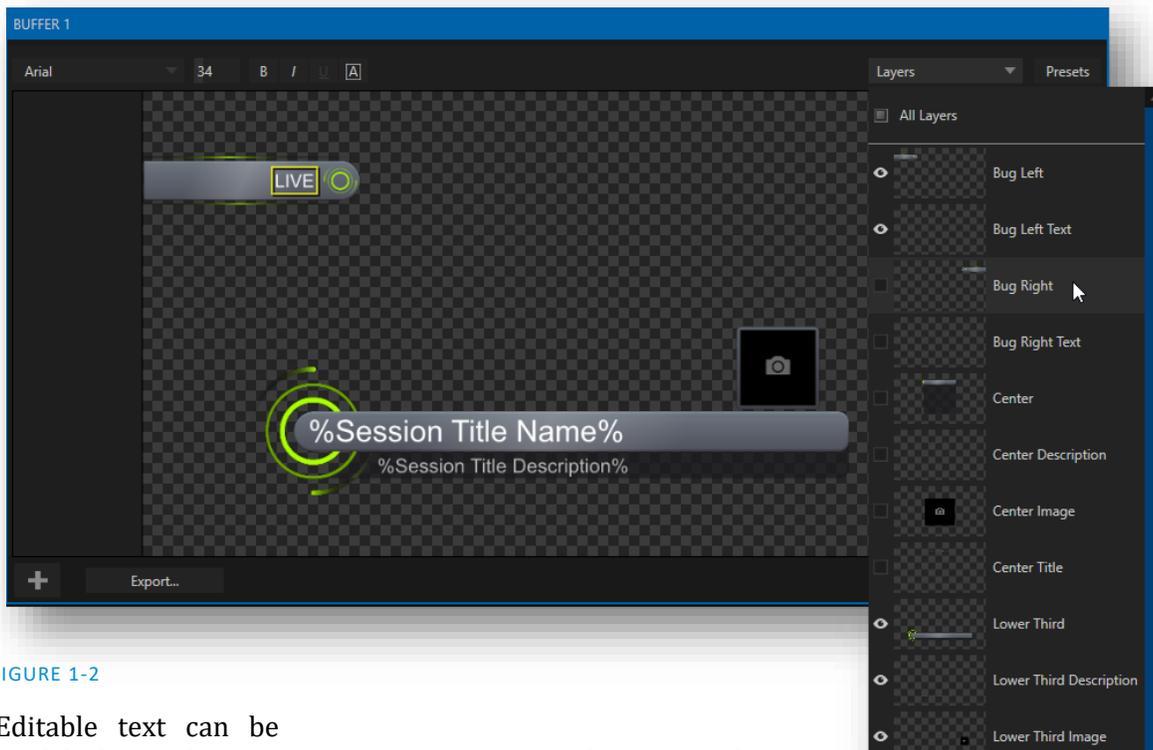


FIGURE 1-2

Editable text can be modified in realtime using TriCaster® or VMC1's native Title Editor (Figure 1-2), which also lets you display or hide the individual graphic elements of your LiveGraphic title pages at will.

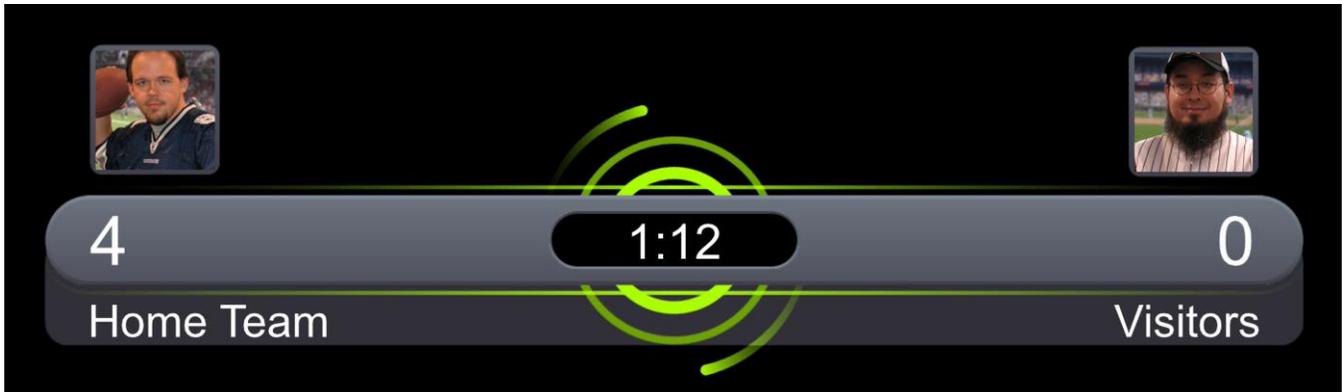
In addition, the Title Editor lets you store different layouts as LiveGraphic presets. Recalling these presets triggers any number of dynamic layer animations to update the page.

Hint: Additional native automation features can be employed (for example) to trigger LiveGraphics presets when a specific display video source is shown, and much more.

1.6 DATALINK

DataLink™ is a NewTek live production technology that uses internal and external data sources to provide values for title text and graphics purposes in realtime.

Complete coverage of DataLink's features and capabilities is found in the *Newtek Automation and Integration Guide*, available in the Updates and Downloads section of NewTek's website. We'll mention here, though, that both text and images in LiveGraphics templates can accept *DataLink keys* as input, and thus can be dynamically updated remotely or automatically.



DataLink keys can be inserted into LiveGraphics at the time of their creation, but the integrated Title Editor for NewTek live production systems supporting LiveGraphics also lets you enter for keys for text lines and replaceable imagery later if you need to.

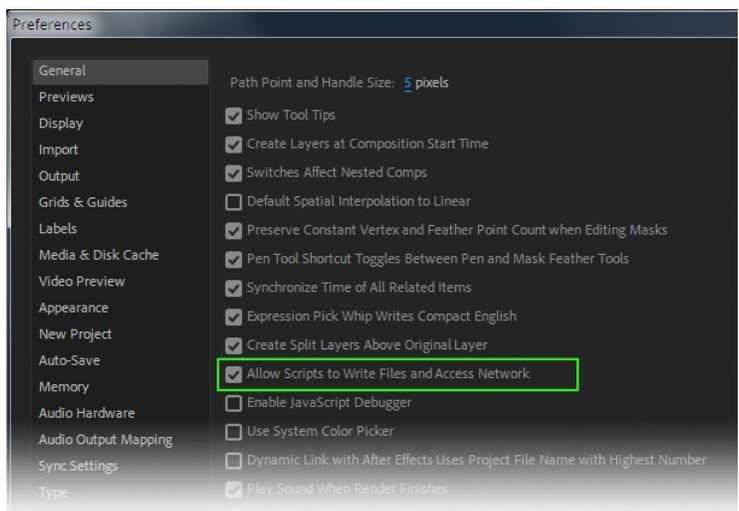
A line of text or image set to a *DataLink* key is automatically replaced by the value currently assigned to that key when the LiveGraphic layer containing it is displayed. There are endless uses for this technology, and a wealth of methods to provide and update the values assigned to *DataLink keys*, including the *DataLink web browser extension*, which makes it easy to populate your title pages over the network from a web browser running on virtually any platform.

See Sections 4.6 and 6.1 for more information on using DataLink in your LiveGraphics projects.

1.7 GETTING READY

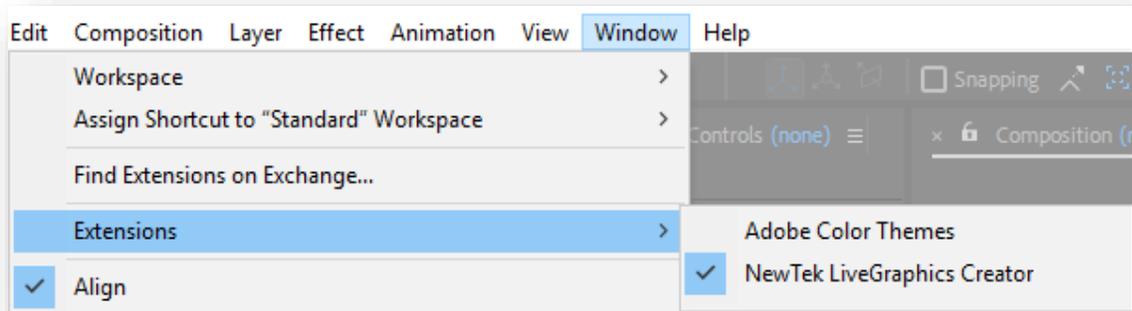
LiveGraphics Creator™ requires Adobe CC 2018 software (or better), and computer running Windows 7™ or better.

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



1.8 LAUNCH LIVEGRAPHICS CREATOR

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



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

Section 2 INTERFACE TOUR



In this section you will gain an understanding of the LiveGraphics Creator™ interface, and its primary features. Whether you will use the simple approach to creating LiveGraphics™, or the more advanced workflow (see Section 1.3), this overview of LiveGraphics Creator's tools and features will help you reach your goals.

2.1 OVERVIEW

Let's take a quick look at organization of major components in the NewTek LiveGraphics Creator interface. The major components illustrated above, are listed from top to bottom below:

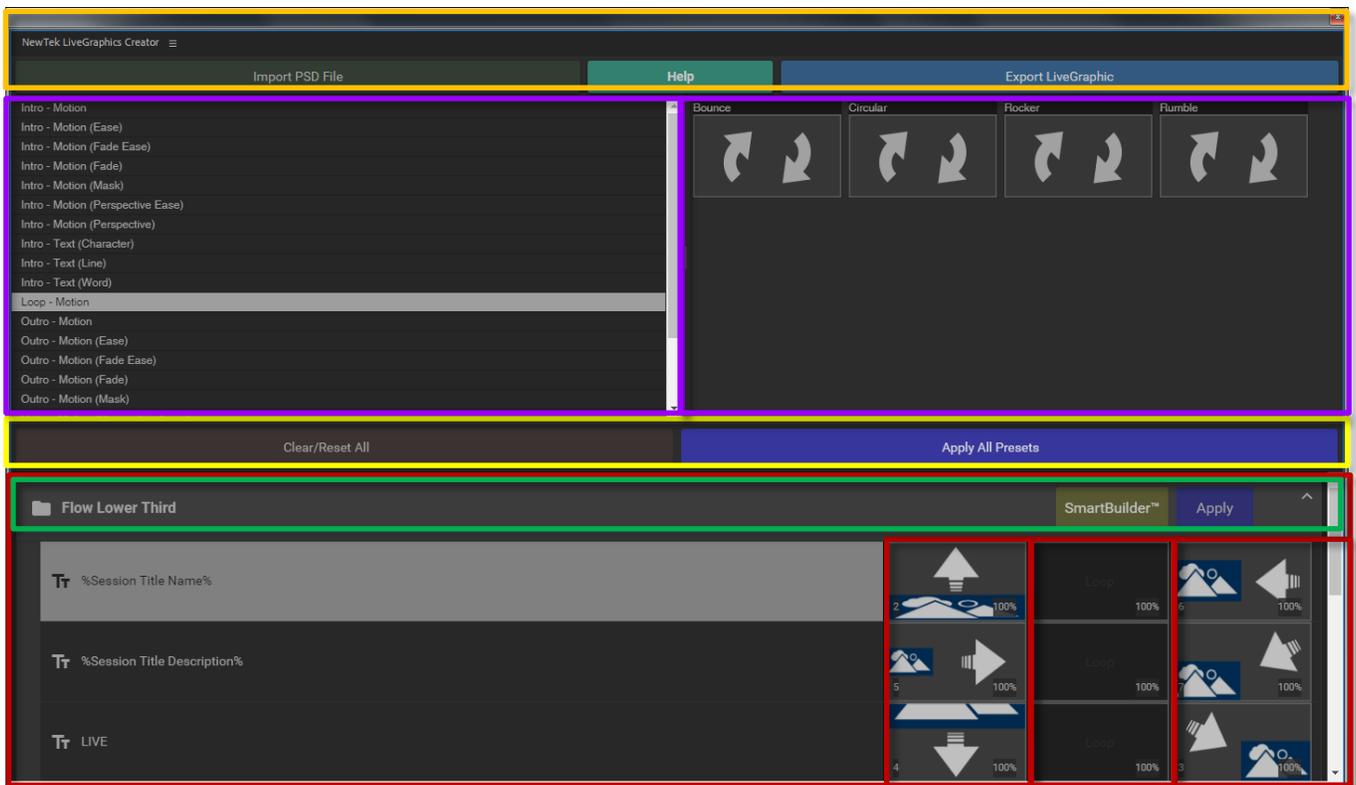


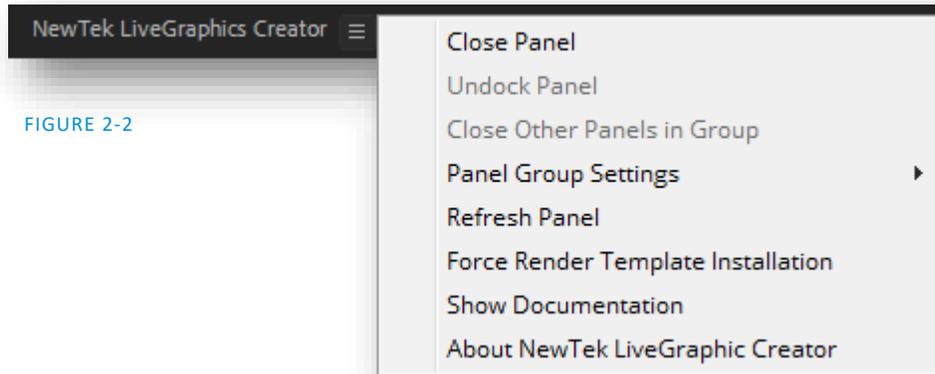
FIGURE 2-1

1. **Top Bar** – Import, Help and Export
2. **Effects** – Preset Categories (left pane) and Preset Bin (right pane)
3. **Tool Bar** – Clear/Reset All (effects), and Apply All Presets
4. **Layers Pane**
 - **Comp Header** – Comp headers contain SmartBuilder™ and Apply buttons.
 - Individual layer rows show 4 cells: Details, Intro, Loop and Outro.

2.2 TOP BAR CONTROLS

2.2.1 MENU

The top bar menu contains default After Effects panel options as well as a few unique items, discussed next.



REFRESH PANEL

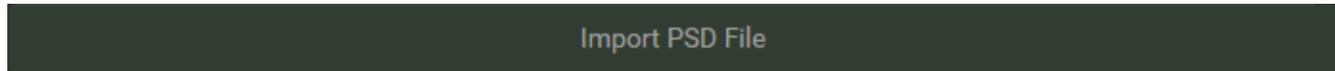
After Effects panels are quite flexible in snapping and resizing, but it's possible to wind up in an unwanted configuration. If you see anything odd in the panel layout after snapping or resizing, selecting Refresh Panel will usually resolve the issue. (This is not a destructive operation; your comps and presets are not affected.)

FORCE RENDER TEMPLATE INSTALLATION

This menu option forces the installation of Render and Output Module presets necessary to for some of the extension's operations. Normally this occurs automatically the first time you run, so this option should really only be necessary if an unexpected error occurs and customer support recommends its use.

Note: Using this menu item will also close your current project.

2.2.2 IMPORT PSD FILE

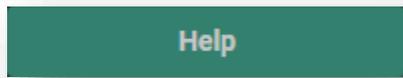
A large, dark grey button with the text 'Import PSD File' in a light grey font.

The large button labeled *Import PSD File* automatically creates a new After Effects® composition from a layered Photoshop® file you choose. To begin, you might load one of the PSD files supplied with LiveGraphics Creator.

Note: PSD layer names must be unique to avoid issues later. Also, be aware that any open projects will be closed when you import a PSD.

By the way, these files are the same ones used by NewTek to create the included LiveGraphics, and you can easily customize them in art software (to use corporate or sports team colors, for example).

2.2.3 HELP



Press the *Help* button located in the center of the top bar to view this help file in your system PDF viewer.

FIGURE 2-3

2.2.4 EXPORT LIVEGRAPHIC

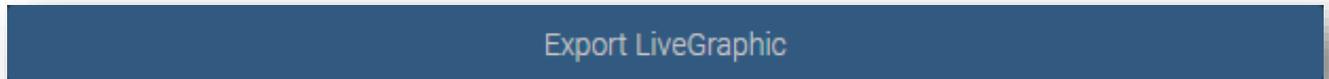


FIGURE 2-4

After adding effects to the layers of your project, pressing the *Export LiveGraphic* button will compile your composition to a LiveGraphic file (with the filename extension “.LiveGfx”) and folder for used your video production.

2.3 EFFECTS PANES

Two large Effect panes sit Just below the top bar, and these are discussed next (see Figure 2-1).

2.3.1 PRESET CATEGORIES

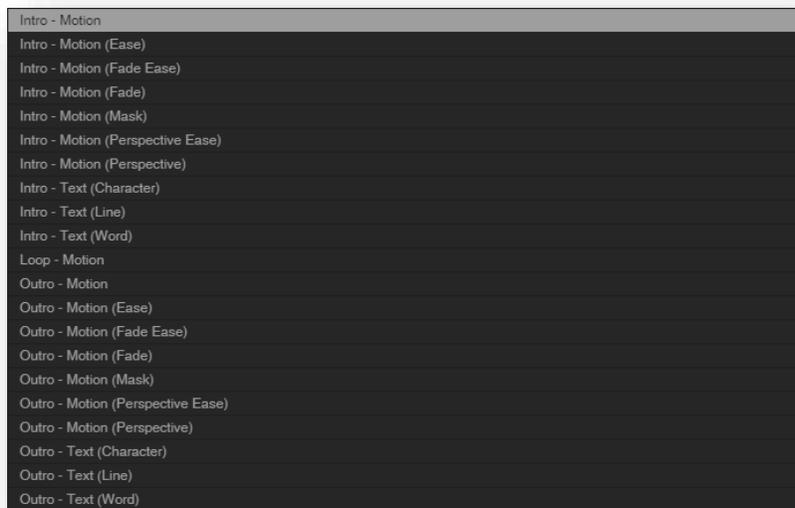


FIGURE 2-5

Effect presets are grouped in various categories by type as well as their intended application. These are displayed in the large Preset Categories pane at left just below the top bar.

For example, the *Intro - Text* categories are further subdivided in presets that affect text elements at the character, word, or line level. Effect presets for the *Loop* and *Outro* segments of your LiveGraphic composition are group in similar fashion.

2.3.2 PRESET BIN

The individual effect presets belonging to the selected category are listed on in the *Preset Bin* the right hand side. The icons in the *Preset Bin* represent the various animations you can apply to the composition’s layers.



FIGURE 2-6

Simply drag a preset icon from the *Bin* onto the appropriate time segment cell (*Into*, *Loop* or *Outro*) of a layer below to assign the corresponding effect to that layer. (We'll discuss this layers further in a few moments.)

2.4 3. TOOL BAR

A *Tool bar* sits just below the *Effects panes*, and above the *Layers panel*.

2.4.1 GET COMP DATA – CLEAR/RESET ALL

The first button in this central toolbar serves several purposes, and can appear differently depending on the current state of your project.

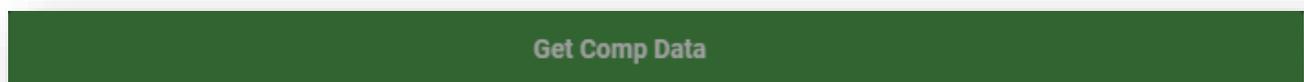


FIGURE 2-7

If you have already loaded an After Effects project before launching LiveGraphics Creator, LiveGraphics Creator needs to be informed about the layer structure of your composition before you can proceed.

In this case, press *Get Comp Data* to scan for compositions in your After Effects project, and populate the LiveGraphics Creator's *Layers pane*.

This step is not necessary when you begin your LiveGraphics Creator session using the Import PSD File button, thus this button appears in its Clear/Reset All guise, discussed next.

Note: PSD and AE project layer names must be unique, even if they are in separate groups or comps.

Once layers are present in LiveGraphics Creator, whether because you clicked *Get Comp Data* or loaded a Photoshop file, clicking *Clear/Reset/All* presents the following dialog box.

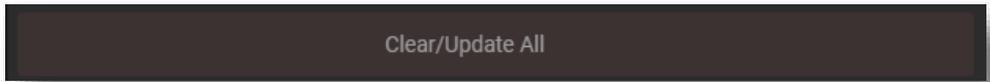


FIGURE 2-8

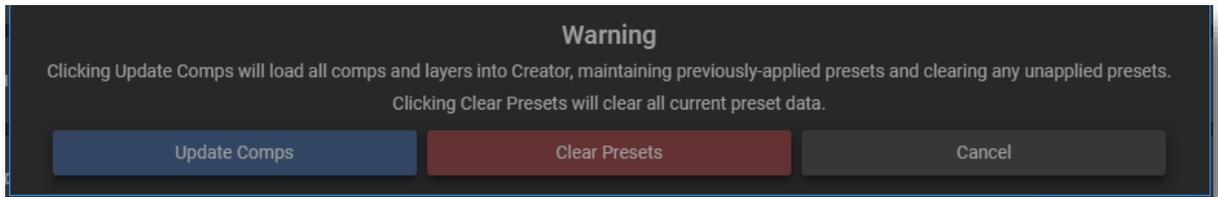


FIGURE 2-9

LOAD DATA

Load Data can be used to reload comps and layers (complete with previously assigned LiveGraphics presets) from the current After Effects project – typically an unfinished LiveGraphics project you wish to continue to work with.

Note: Time segments for layers that don't match data found in the current project loaded will be cleared.

CLEAR ALL

Click *Clear All* to remove all presets currently applied to the LiveGraphics Creator project's layers.

2.4.2 APPLY ALL PRESETS

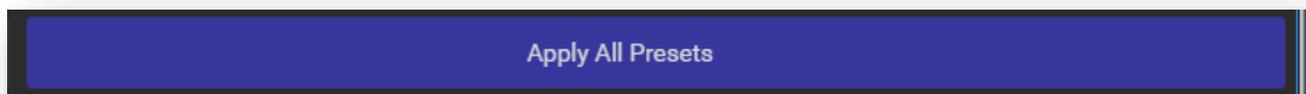


FIGURE 2-10

Click *Apply All Presets* to update the layers in your After Effects project, adding keyframes and settings to layers corresponding to the effect presets you've added in LiveGraphics Creator. (We'll talk about this in more depth a bit later.)

2.5 LAYERS PANE

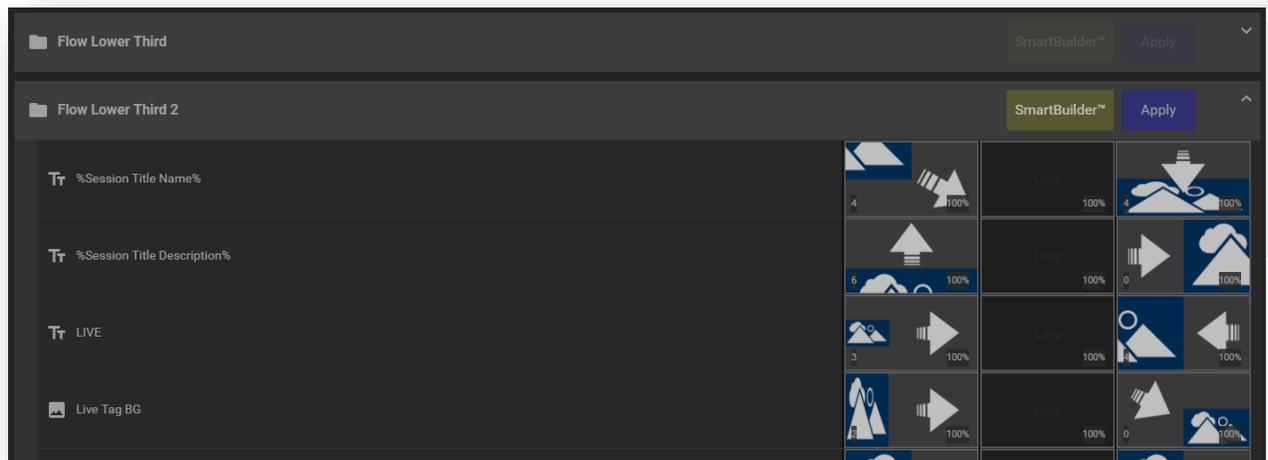


FIGURE 2-11

The *Layers pane* lists of all the compositions and layers loaded in LiveGraphics Creator (compositions are distinguished from individual layers by the folder icon shown at left beside their label).

Clicking a comp header row expands it to reveal its nested layers below, or closes it to hide them. We'll explore the Layers panel and its features in full detail in the next section.

Section 3 SIMPLE WORKFLOW



By far the easiest way to create complex LiveGraphics™ uses LiveGraphics Creator's ability to quickly add effects chosen from supplied effects presets to the layers of your title and graphic compositions. Appropriate effects to display and remove individual layers can be assigned automatically with a single click, or you can manually choose effect presets.

Having begun by importing a PSD file (see Section 2.2.2), you're ready to continue the creation process.

LiveGraphics Creator's Layers pane, discussed in the previous section, provides two different ways to apply effect presets. The first of these is SmartBuilder™, which offers what is often the easiest and fastest approach. Of course you may well want to take more direct control, or use a hybrid approach.

All of these matters are explained in the following sections.

3.1 COMP HEADER TOOLS

The Comp header contains just two buttons, both located at right – SmartBuilder™, and Apply. The latter is similar to Apply All Presets, but more limited, applying just the effect presets for layers nested inside that specific comp) to the corresponding After Effects® layers. Let's jump into SmartBuilder next.

3.1.1 SMARTBUILDER™

SmartBuilder™

SmartBuilder™ is an amazingly quick and completely automatic way to add effects to your LiveGraphics project.

When you click the SmartBuilder button, LiveGraphics Creator automatically performs the following operations:

- The layers nested in the selected comp are parsed to determine their respective types, since this governs which effect presets can be applied to the various layers.
- Then, SmartBuilder applies random effect presets to the Intro and Outro time segments of each layer, always respecting the layer's type.



FIGURE 3-1

The entire process takes a matter of seconds to produce amazing results. You might choose to simply accept the animated effects as-is for a quick turnaround project, or use it as a starting point for further refinement.

3.1.2 DRAG AND DROP PRESETS

As cool as SmartBuilder is, at times you will want to choose one or more specific effect presets for the Intro, Loop, and Outro time segments of your project layers.

This process is exceedingly simple.

Just make a selection in the Preset Category pane (see Section 2.3.1, and locate a suitable entry in the Preset Bin.

Drag the icon for the preset onto one of the three cells representing the Intro, Loop, or Outro time segment for the target layer.

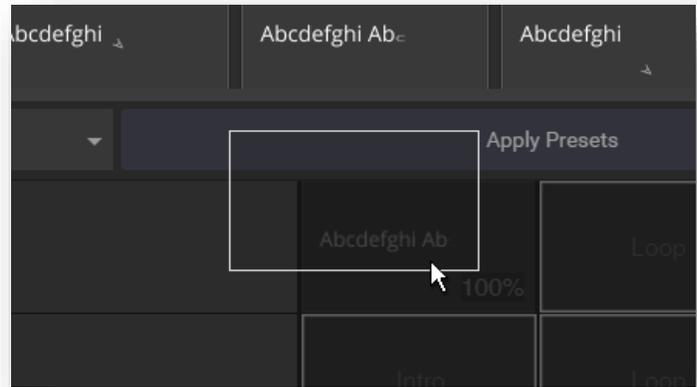


FIGURE 3-2

Hint: Time segment cells prevent you from dropping unsuitable effect presets types onto them. For example you can't drag an Intro effect preset onto an Outro cell, or a text preset onto a graphic layer.

3.2 OPTIONS

3.2.1 DELAY AND SPEED

Click a cell for a specific time segment (Intro, Loop or Outro) in a row in the Layers panel to open an options window for that layer and time.

DELAY

The Delay setting lets you specify an offset (in frames) to elapse before this motion preset is applied. The delay begins when the operator enables or disables the layer's visibility. When the delay time elapses, the effect preset runs.

Generally this is used to offset a layer's 'arrival' or 'departure', or to sequence a series of layers in succession.

You might often to use this feature to add drama when controlling the visibility of many layers at once (whether manually or by using a Layer Preset or macro to control the display in one of NewTek's live production systems such as a TriCaster).

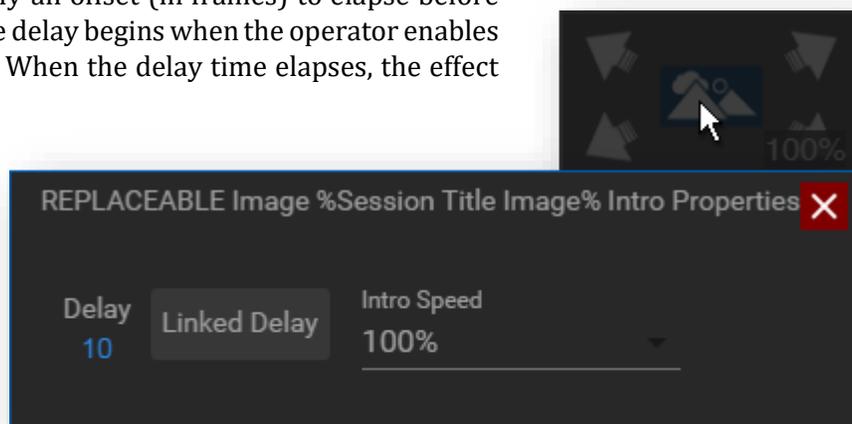


FIGURE 3-3

LINKED DELAY

If you enable the Linked Delay option for a layer, that layer first waits patiently until the delay applied to the layer directly above it concludes. Only then does its own local delay countdown begin.

This option is great when you want to animate specific layers sequentially – as, for example, a bulleted list of text items.

You would select the appropriate text layers, link their delays, and then set the delay to the desired length. Each layer will then animate in (or out) one after the other.

Of course, since Linked Delay is relative to the neighbor directly above, the offset effect accumulates when successive layer have it enabled.

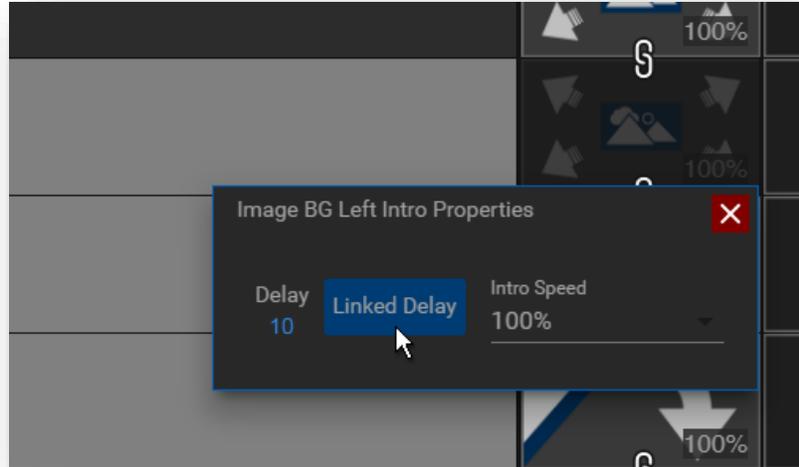


FIGURE 3-4

For example, if three layers each with Delay settings of 10 frames have Linked Delay enabled, the first layer's effect is delayed 10 frames, the next is delayed 20 frames, and the last layer's delay becomes 30 frames.

SPEED

This control (Figure 3-5) 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.

3.3 MULTI-SELECTING LAYERS

Selecting a layer and with the Shift key pressed allows you to multi-select a range layers. Click layers while holding down CTRL to select/deselect discontinuous layers. And of course, press CTRL+A to select all layers.

Hint: Dragging an effect preset onto multi-selected layers assigns it to all layers, unless the preset is not valid for that layer or time segment.

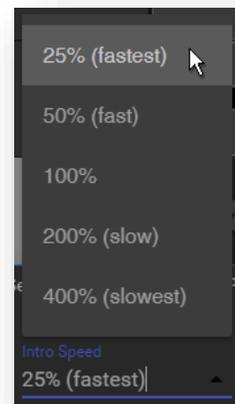


FIGURE 3-5

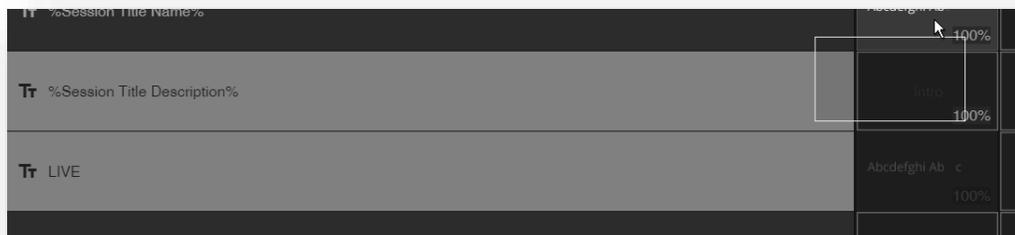


FIGURE 3-6

3.4 APPLY PRESETS

Once you finished editing layer effects, you need to apply your preset animations to the After Effects project by either clicking:



FIGURE 3-7

- "Apply All Presets" (spoiler alert: this applies ALL presets you currently have configured in LiveGraphics to the corresponding compositions loaded in After Effects™).
- Or you can limit the application to preset effects in individual compositions by clicking the 'Apply' button on each composition in the layers list.

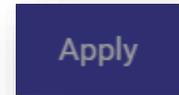


FIGURE 3-8

3.4.1 PREVIEWING EFFECTS

Having applied the effect presets to the After Effects® project layers, you can use After Effects' preview features to review your work in the composition window.

The last presets you apply to layers are stored with the layer, and saved with your After Effects® composition.

Unapplied presets and settings are likewise retained through simply closing and opening the window. As long as your comp and layer order has not changed, everything remains in sync.

However, if you add, remove, reorder or change any layers, click Reset/Reset All in the Tool bar above the Layers pane, and perform an Update Comp operation to pull your revised After Effects® composition into LiveGraphics.

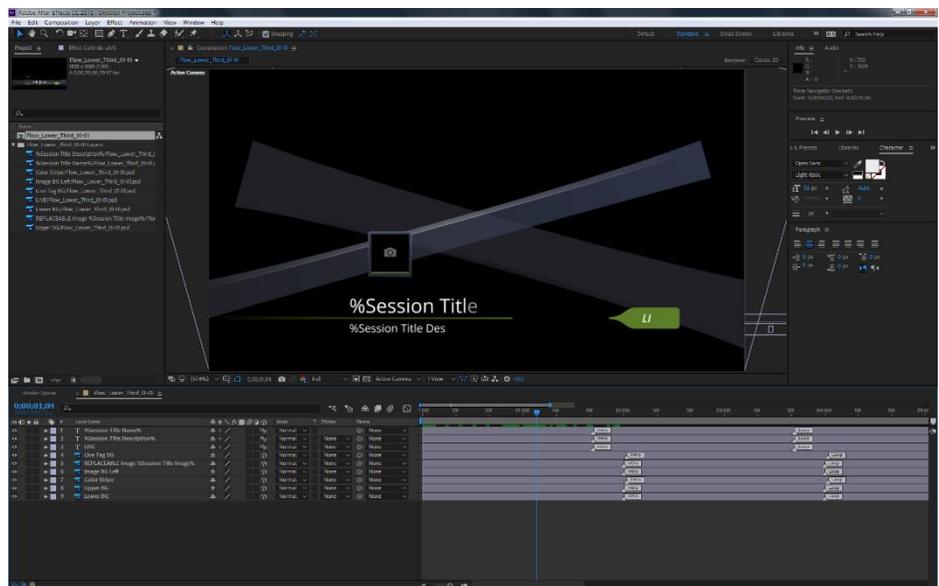


FIGURE 3-9

Hint: Conveniently, while After Effects® remains open, you can safely close the LiveGraphics Creator panel without losing anything, then reopen it later in your session to continue.

3.5 EXPORTING LIVEGRAPHICS

After fully configuring your LiveGraphics Creator project, the last step is to export your composition to a LiveGraphic file (.LiveGfx) and associated folder to load onto your NewTek™ live production system.



FIGURE 3-10

Clicking the Export button presents a dialog that lets you supply a name for the exported LiveGraphic file, and choose a location to save it.

The panel lets you export one comp at a time, using the menu at the top of the Export LiveGraphic dialog to choose which project to process.

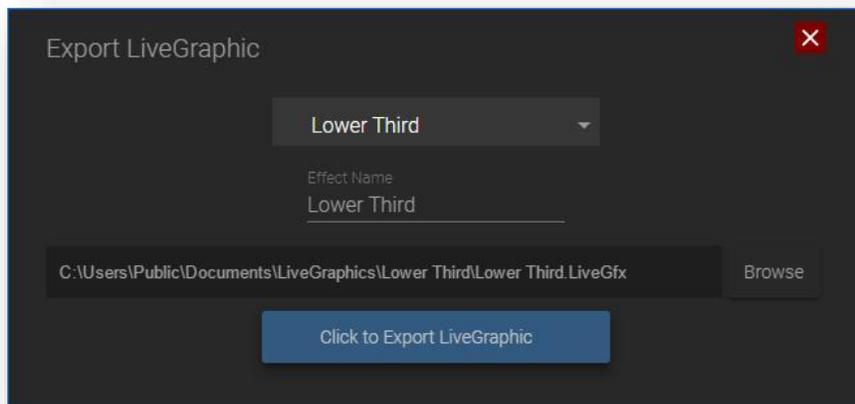


FIGURE 3-11

3.6 INSTALLING LIVEGRAPHIC TITLES

We recommended placing exported LiveGraphic files and folders generated by the export process into a specific location on your live production system (so that they will appear in the custom Media Browser without any extra effort.) This location can be found by typing %programdata% into the address bar in a Windows Explorer window on the target system.

Inside this folder, navigate to: /NewTek/Media/LiveGraphics/. We recommend making a 'User' folder here, and copying your files into it. (This isn't a requirement, is useful for organizational purposes as a good way to distinguish your files from others on the system.)

Each "LiveGraphic" consists of one file and one folder of associated content. Both are required, in the same location, for the LiveGraphic export to work correctly on your switcher. For instance, if your LiveGraphic is called "Lower Third", the Export function will create a file called "Lower Third.LiveGfx" and a folder called "Lower Third". Copy both of these into your destination folder. Subsequently, you'll find your new LiveGraphic in the "User" folder under the LiveGraphics heading when you use the system's Media Browser.

Section 4 **ADVANCED WORKFLOW**



This section provides the details you need if you wish to work directly in After Effects™ tools to design custom layer effects and create more advanced LiveGraphics™ titles. Or, you might want to use a hybrid workflow, using After Effects® to add finishing touches to a composition you prepared using the simple workflow discussed previously.

As we've seen, you can begin with a simple layered Photoshop file and get amazing results easily using the simple workflow discussed in Section 3. More experienced artists wanting full control can also use After Effects® native features to create dynamic animations designed to meet LiveGraphics™ specifications, then export these as LiveGraphics titles using the LiveGraphics Creator™ extension.

Numerous ready-to-use LiveGraphics titles are included with LiveGraphics Creator. Advanced users will also appreciate the inclusion of the actual After Effects® projects and Photoshop PSD files used to create these as part of the content.

Let's review some background information you will find important when using this more involved workflow.

Hint: The next major section provides a hands-on example you can follow.

4.1 **STARTING A PROJECT**

To begin your title project, you can use After Effects' native drawing and text tools to prepare layer content, or do so in Adobe Photoshop® and import a layered PSD file into After Effects® as discussed previously. Note that any item you intend to animate needs to be on its own layer in Photoshop® or After Effects®.

4.2 **LAYERS**

Each layer in the exported composition in After Effects® will ultimately be listed in the TriCaster or VMC1 Title Editor as a layer whose visibility state can be toggled. For layers with animation, hiding or showing the layer triggers its associated (Intro or Outro) animation – see Sections 1.4 and 1.5.

To reduce up the number of layers that appear in the Title Editor, items that are part of the same graphic element in your design can be grouped into a pre-comp. The pre-comp name will listed as a single layer in the Title Editor window.

4.3 **INTRO, LOOP, AND OUTRO MARKERS**

After establishing the basic graphic design elements of your project, you need to define the places in time where title animation begins (the Intro), loops (or remains static) until removed from view, and when it ends (the Outro).

After Effects markers are generic layer properties that let you mark a certain place in time on a layer, or on the timeline itself. NewTek LiveGraphics Creator uses markers to identify the beginning and end of the Loop

segment (the start of the composition marks the start of the Intro, and the end of the timeline denotes the end of the Outro). Any further markers are ignored.



FIGURE 4-1

When making a LiveGraphic by hand, you need to place these markers – in the same place for all animated layers - in order for LiveGraphic Creator to identify these vital time segments.

Hint: If a layer has no markers set, it can still be turned on and off in the switcher. Such layers will simply loop continuously whenever the layer is visible.

4.4 BAKED LAYERS

Common layer properties, such as transforms, opacity, layer masks, track mattes, as well as the 'Color Balance (HLS)' effect for animating color are supported. However, After Effects® pixel filters (such as Blur, Levels, and Advanced Lightning that appear in the Effects menu) cannot serve as real-time LiveGraphics effects.

Any unsupported effects or property changes you apply to layers will result in that layer being 'baked' into rasterized frames. In consequence, these layers will no longer be editable after export as a LiveGraphic.

Hint: If you find a layer cannot be edited after export, try removing any effects applied and re-exporting.

Thus for maximum flexibility, you will want to avoid unsupported effects for anything that you might later want to change dynamically in your LiveGraphic title.

Hint: Most Layer Styles (effects such as Drop Shadow and Glow, accessed through Layer > Layer Styles) can be used on graphic and text layers and remain editable. However, only the starting parameter of the style is respected. So, for example, if the distance or angle of a Drop Shadow is animated, the animation will not be preserved on export.

As another example, layer transforms such as position, scale and rotation to position your text in 3D space work fine and allow text editing later. However, using the Distort > Corner Pin effect to place a piece of text would force the layer to be rasterized during export.

4.5 FONTS

Any fonts you use in your title design must also be available on the target live production platform. Otherwise, they will be replaced with Arial. The Title Editor depicts missing fonts in red in its font selector.

4.6 DATALINK KEYS AND REPLACEABLE IMAGES

Text layers that have Datalink keys entered rather than (or along with) static text strings will be replaced by the current Datalink value, if any, upon display by TriCaster/VMC1.

Similarly, image layers with the string “REPLACEABLE” (without quotation marks) in their layer name become replaceable in the Title Editor on the NewTek live production system. These replaceable image layers also support the addition of a Datalink key to the layer name.

When a replaceable image also has a DataLink key in its layer name, the image will automatically display to the corresponding Datalink image value when displayed (on the live production system), and will update dynamically whenever the image key value is modified.

4.7 THIRD PARTY AFTER EFFECTS® TEMPLATES

You can download template files from websites such as Videohive, etc. but please note that these templates can be setup in many different ways depending on how the author designed them. Very often, substantial adjustments will be needed for them to fulfill the LiveGraphics requirements discussed earlier in this chapter.

For example, should a template use an expression to modify unsupported properties, these will need to be removed to avoid unexpected results. (Expressions affecting *supported* layer properties should work just fine, of course.)

It's virtually impossible for LiveGraphics™ to mimic everything that can be accomplished with the near endless number of After Effects® plugins available, so a similar caveat applies to unsupported Effect plugins. These layers will be baked when possible but, depending on the plugin's internal operations, these effects may need to be removed altogether.

4.8 GET COMP DATA AND EXPORT

As we've seen the LiveGraphics Creator extension allows you to import Photoshop® files as a starting template, or you can use animated After Effects® templates you create yourself or download from online stores to prepare LiveGraphics titles for export.

In the latter cases- having modified the After Effects® with the various LiveGraphics requirements discussed in this section in mind – you would then use the Get Comp Data feature to read the After Effects® composition into LiveGraphics Creator™. Finally, you would then select a comp to convert to a LiveGraphics title using LiveGraphics Creator's Export function.

Section 5 PROJECT EXAMPLE



In this section, we'll walk you through an actual example of the advanced workflow discussed earlier. You'll use After Effects® features to prepare a project suitable for import into by LiveGraphics Creator™ using its Get Comp Data feature, and then export the result as a finished LiveGraphics™ title ready for use.

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

5.1 PREPARATION

5.1.1 IMPORTING THE PHOTOSHOP FILE

The Photoshop® file we'll use for this project is 'Hexagon Lower Third', included with the LiveGraphics installation. The elements of this graphic are shown in Figure 5-1.



FIGURE 5-1

1. Launch After Effects®.
2. Select the New Composition From Footage option (Figure 5-2) when After Effects first starts, or by going to 'File > Import > File...' to import the Photoshop® file into After Effects®.

Hint: Alternatively, you can skip the next few steps by using LiveGraphics Creator's Import PSD button to do this for you – see Section 2.2.2).

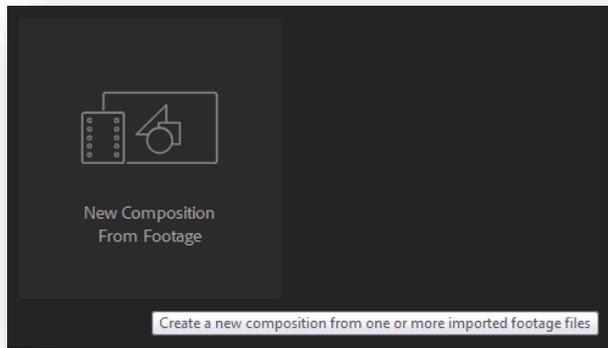


FIGURE 5-2

3. When presented with the file browser, select the options shown in Figure 2-2.

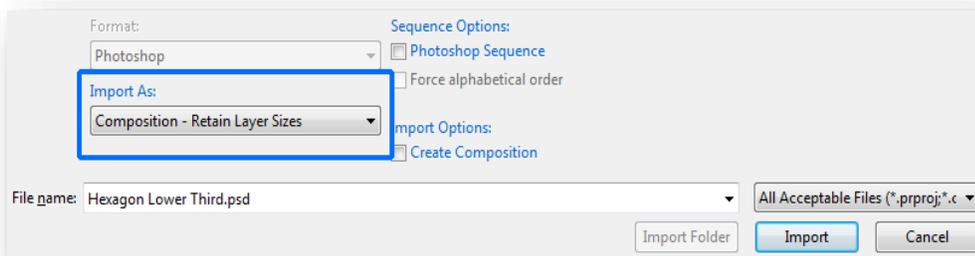


FIGURE 5-3

4. After importing the file, you will be presented with the following dialog box. Configure it as shown in Figure 5-4, and click OK to import your file.

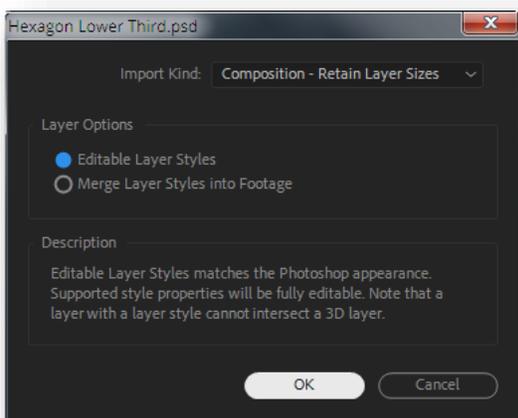


FIGURE 5-4

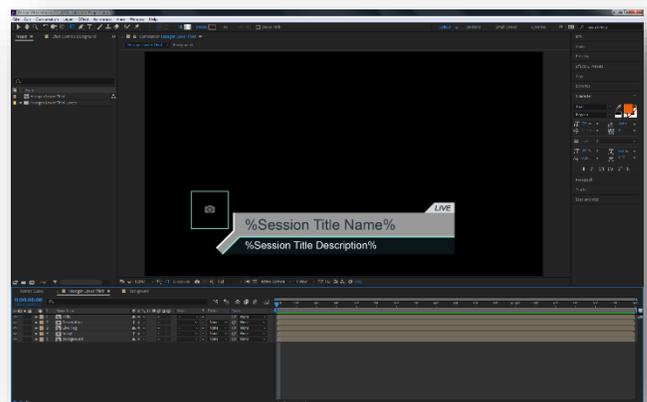


FIGURE 5-5

5.1.2 GROUPING / NAMING LAYERS

The layers in the original Photoshop® file are arranged as shown at left below (Figure 5-6).

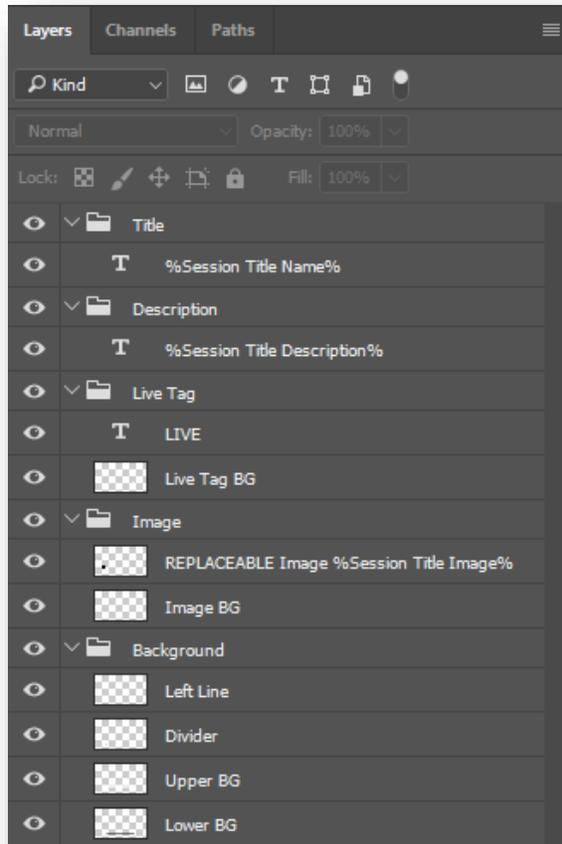


FIGURE 5-6

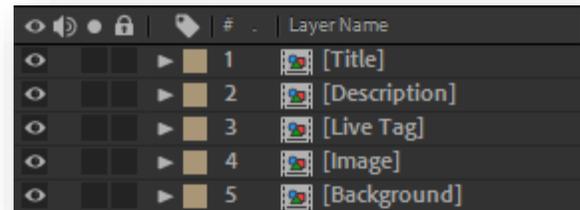


FIGURE 5-7

After importing into After Effects®, any layers that were nested in Photoshop® folder groups appear as pre-comps (Figure 5-7)

Conveniently, this can help you to control the naming of various elements of your composition, saving you the trouble of editing layer names later in After Effects®. (Of course, single layer items don't need to be grouped unless it suits your design requirements.)

5.1.3 SETTING YOUR COMPOSITION LENGTH

Setting your composition length at the start lets you see how much 'space' you have to work as you add keys for animation you add to the project. (Strictly speaking, this step is optional – but we recommend doing so.)

5. In After Effects, display the Properties dialog for your main composition and set project Duration to something suitable, as shown in Figure 5-8.

5.1.4 CONVERTING TEXT LAYERS

When importing files from Photoshop, you need to convert text layers you intend them to remain as editable in the resulting LiveGraphics™ title.

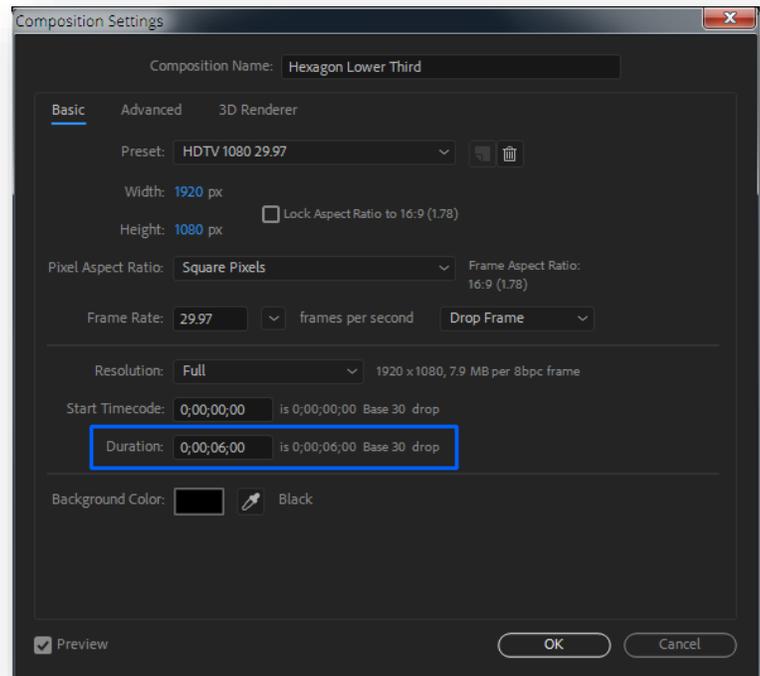


FIGURE 5-8

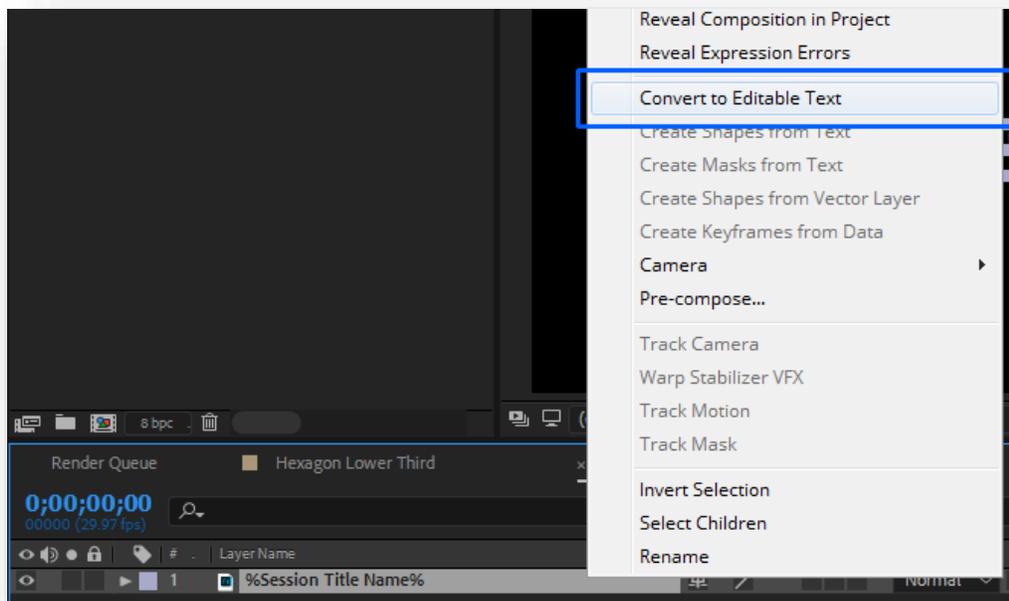


FIGURE 5-9

6. Select the text layer(s) in After Effects®, right-click to bring up the context menu and, finally, select the Convert to Editable Text menu item.

5.2 ANIMATION OPTIONS

We're now ready to start animating our title design. In this title example, we want all of the various layers to be revealed in an interesting way, as if it's building itself.

5.2.1 LAYER MASKS

If you have elements in your design that you wish to reveal in place which are neither rectilinear nor circular (and thus which cannot be easily revealed by animating scale or position), you might want to use masks. Our example title design requires this as it includes lots of irregular shapes.

Hint: Masks are useful for creating effects applied to the Loop section of your title. For example, it's very easy to apply a looping highlight flash to one or more graphic elements.

Let's create a gradient to use as a 'highlight flash'. This gradient will be masked by the Divider layer for use in the Loop portion of our title design.

7. First, open up the Background pre-comp.

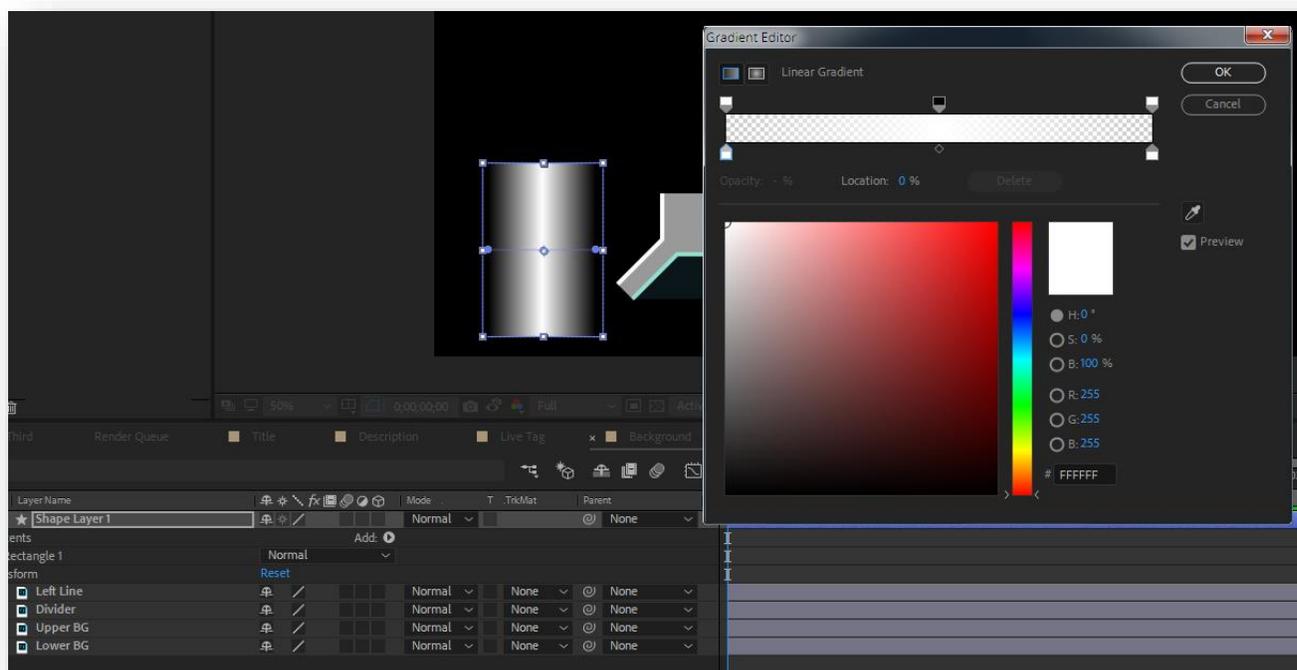


FIGURE 5-10

8. Using the After Effects® 'Rectangle Tool' found on the top toolbar, draw out a rectangle to the left of the lower third to create a gradient that fades in and out horizontally:
9. Rename Shape Layer 1 to "Highlight Fade" to make things easier to remember.

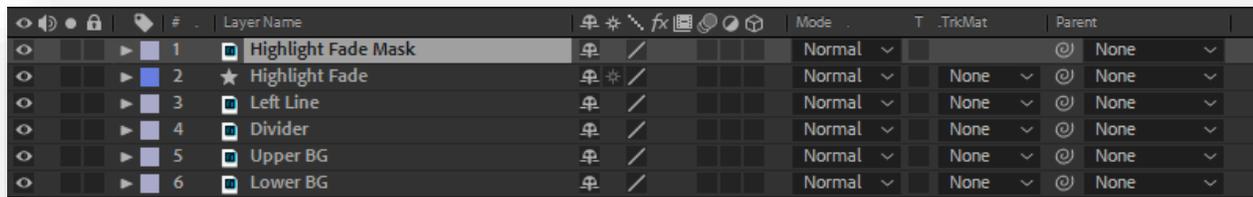


FIGURE 5-12

- Next, duplicate the Divider layer, rename it “Highlight Fade Mask”, and drag it above the Highlight Fade (gradient) layer.

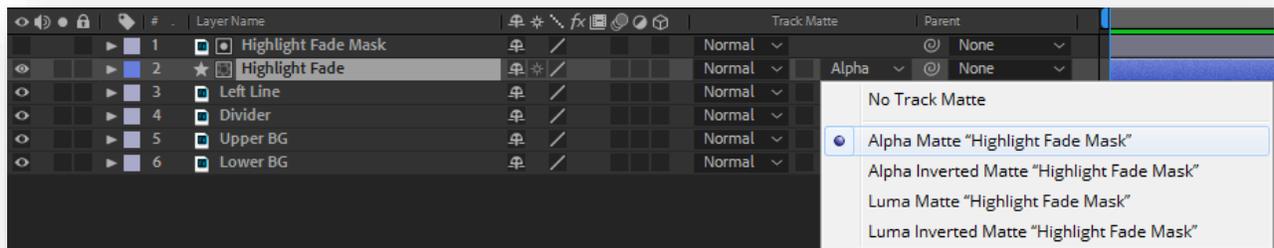


FIGURE 5-11

- Assign the Highlight Fade Mask layer as a mask for the Highlight Fade layer by changing the latter’s Track Matte mode to Alpha Matte “Highlight Fade Mask” (Figure 5-11).

The Highlight Fade layer is now masked by the Highlight Fade Mask (a copy of the Divider layer), so that the gradient is only visible within the ‘Divider’ portion.

Let’s continue to create Shape Masks for all of the other layer appropriate items, starting with the ‘Left Line’ layer.

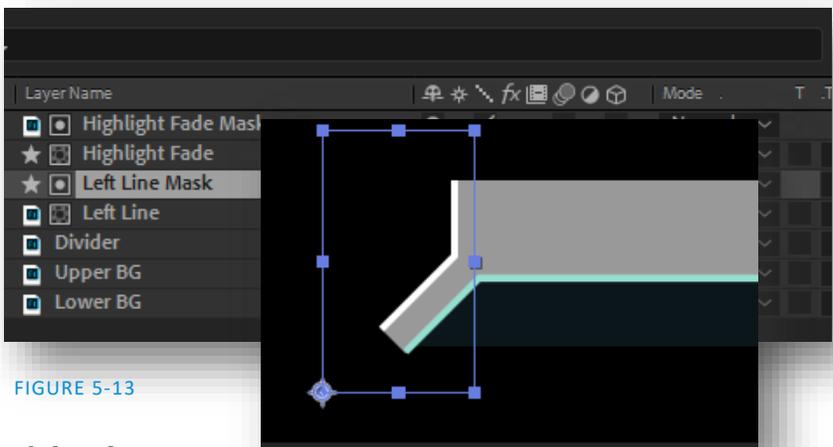


FIGURE 5-13

- Use the ‘Rectangle Tool’ drag a rectangle to cover all of the elements you wish to reveal, then (as before) give this new layer the same base name as the element you intend to mask, appending the suffix “mask” to it (to avoid any confusion later) – see Figure 5-13.
- Repeat these steps as required for all the other elements in your title, except any layers or elements that use basic transforms or don’t require masking for other reasons.

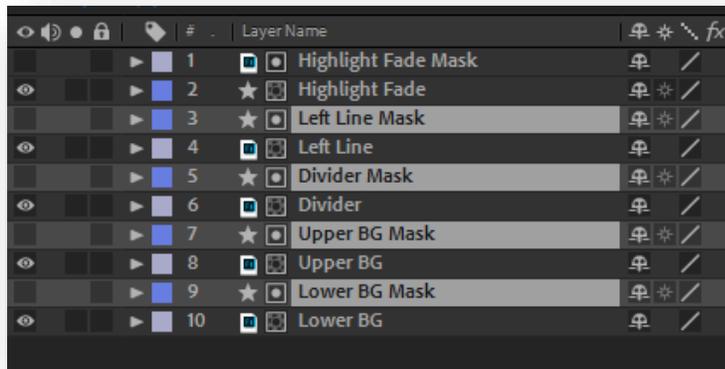


FIGURE 5-14

Note: To ensure that each element in the title scales from the direction you intend, you may need to adjust each layer's Anchor Point. To do so, select each layer in turn and use the Pan Behind (Anchor Point) tool from the top menu bar (Figure 5-15).

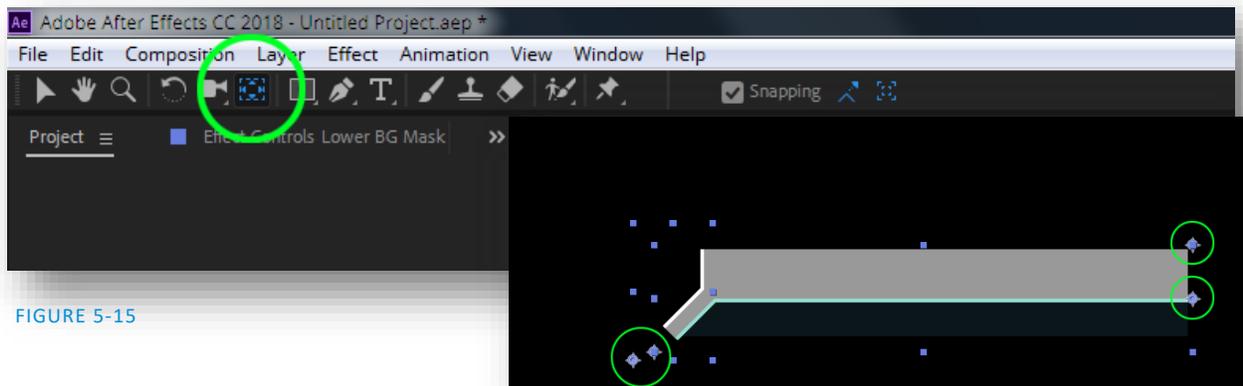


FIGURE 5-15

5.2.2 LAYER PROPERTIES

We now have all the necessary elements ready to animate in interesting ways, either by scaling the masks to reveal portions of the title, or directly animating properties such as opacity or scale (Figure 5-16).

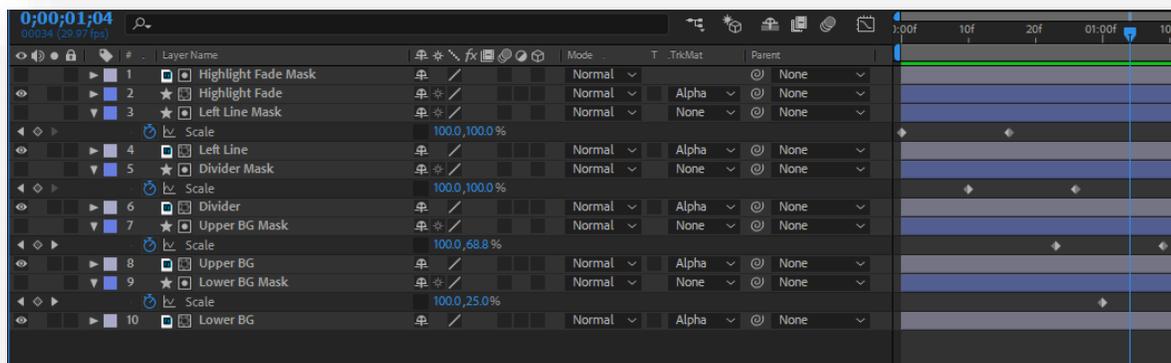


FIGURE 5-16

We won't delve into the fine details of how to animate various After Effects™ properties. There are ample online learning resources if you need help in this area.

However, as they play such a vital role in title animations, let's take a moment just to look at text layer effects just a bit more. In this simple example, we'll animate the opacity of the individual characters in a text layer.

14. Click the arrow next to Animate on each text layer and select Opacity
15. Expand the fold-down arrows on the text layer, Text property, Animator and Range Selector to reveal the layer's properties (Figure 5-17).
16. Create key frames to reveal the text by animating the Range Selector's Start property, setting the Opacity value to 0%.

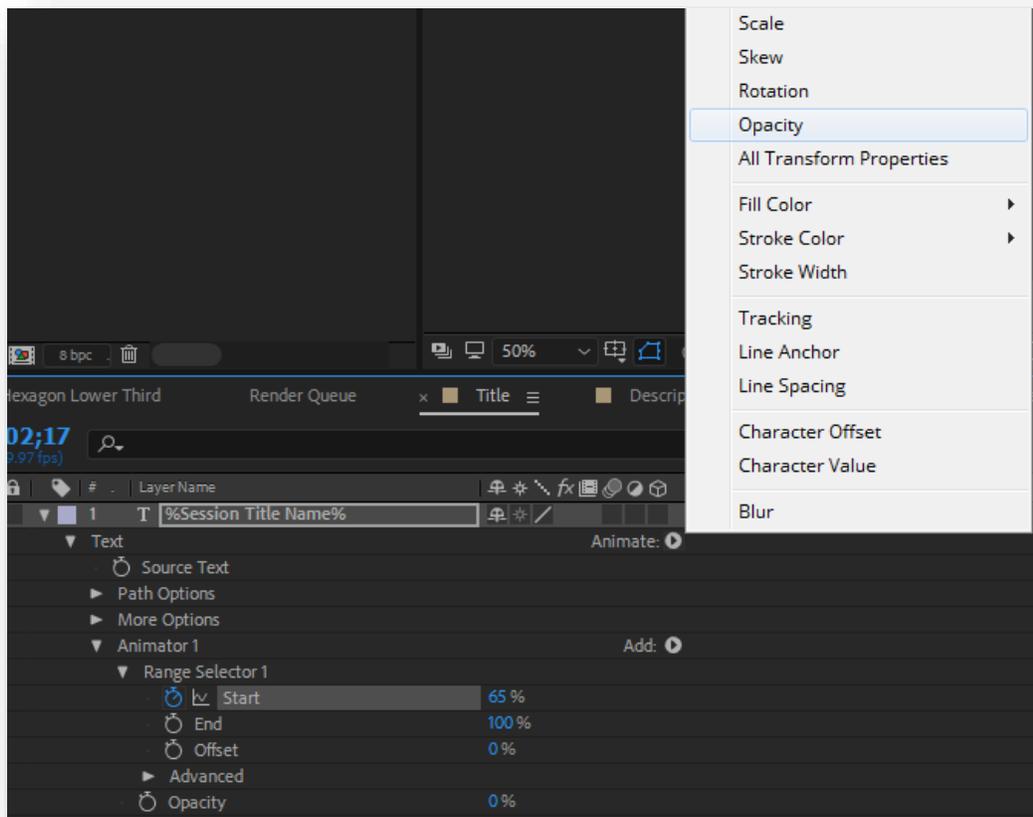


FIGURE 5-17

Once you have added Intro animations to as many layers as you want to, you're ready to consider Outro effects. One very fast way to create the Outro is to simply copy the Intro keys for each layer to the Outro.

Then select the copied keys, right-click any key, and select Keyframe Assistant > Time-Reverse Keys from the menu. This will reverse the Intro keys for each layer to create a matching Outro effect.

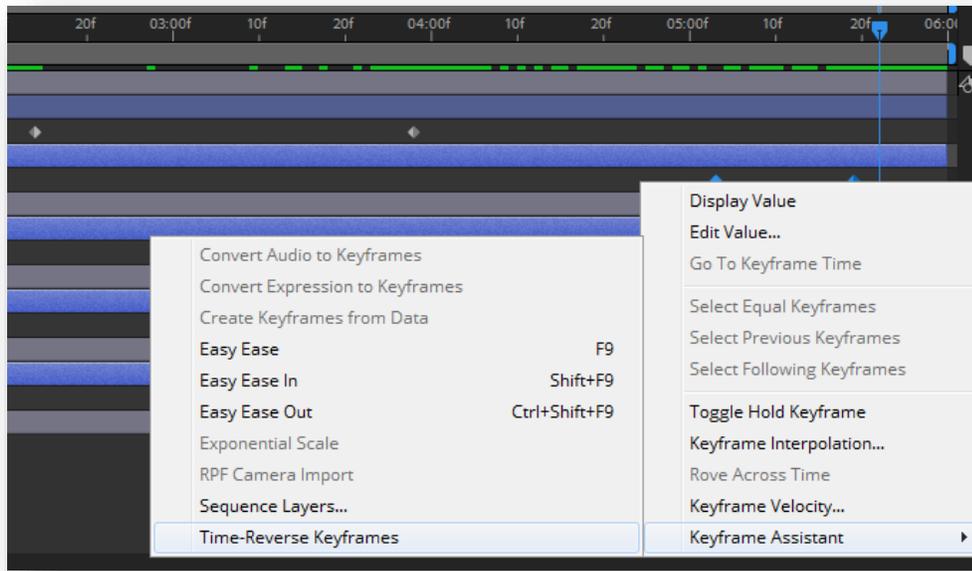


FIGURE 5-18

5.2.3 LOOP MARKERS

After preparing all the visual elements of your LiveGraphics title design, you need to identify the Intro, Loop and Outro segments of your LiveGraphics title design (see Section 1.4). This really only requires adding After Effects® layer markers to mark the start and end of the Loop segment. (Obviously, everything before the Loop start is Intro, and everything after the Loop ends is Outro.)

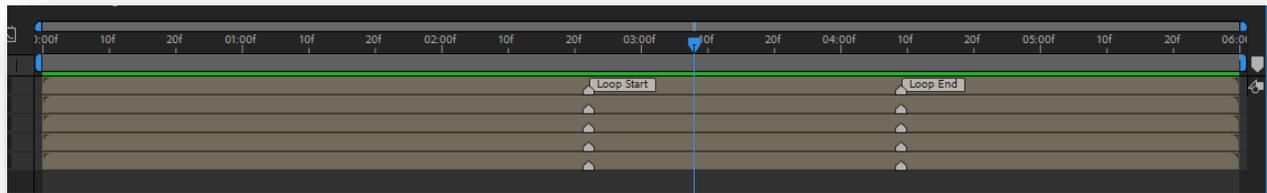


FIGURE 5-19

This simply requires you, then, to proceed as follows:

17. Select all layers of your main, top-level comp
18. Locate the last keyframe in any layer in the Intro section, and add a marker there.
19. Likewise, find the first Outro keyframe in any layer, and add a second marker there.

You're almost done – just one more step to go.

5.3 EXPORT

With your title animation complete in After Effects®, you are ready to export it as a LiveGraphics title.

20. If it isn't already open, display the LiveGraphics Creator™ extension interface.

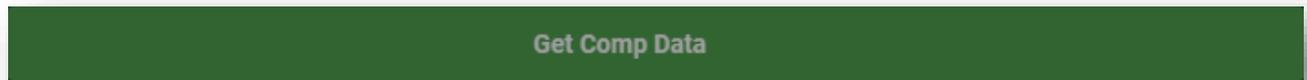


FIGURE 5-20

21. Click the large Get Comp Data button to import the top level comp for your After Effects project into the LiveGraphics Creator™ pane.

22. Then click export to show the dialog that lets you choose which comp to export, supply a name for the exported LiveGraphic file, and choose a location to save it.

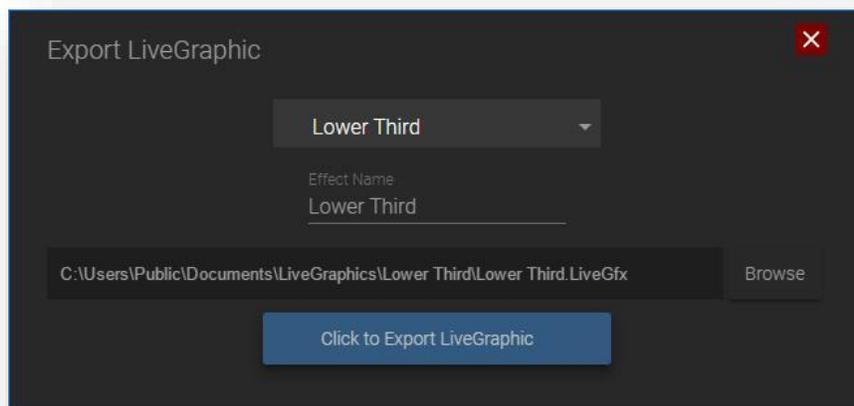


FIGURE 5-21

Your compiled LiveGraphics files will comprise a file with the .livegraphics filename extension, and a folder containing the supporting files.

Section 6 SUPPLEMENTAL TOPICS



In this final section we will add information that is not strictly necessary to create functional LiveGraphics™ titles, but which can help you take full advantage of their capabilities, drawing on tools and features that are common in the NewTek product ecosystem.

The following section provides useful information about additional advanced topics.

6.1 MORE ON DATALINK & REPLACEABLE IMAGES

LiveGraphics™ text layers that have Datalink keys entered rather than (or along with) static text will be replaced by the current Datalink value, if any, upon display by TriCaster/VMC1.

Similarly, image layers with the string “REPLACEABLE” (without quotation marks) in their layer name become replaceable in the Title Editor on the NewTek live production system. These replaceable image layers also support the addition of a Datalink key to the layer name.

Hint: When loaded for display in your production, the REPLACEABLE label is stripped out, leaving just your desired layer name.

When a replaceable image has a DataLink key assigned as described above, the image will automatically display to the corresponding Datalink image value when displayed (on the live production system), and will update dynamically whenever the image key value is modified.

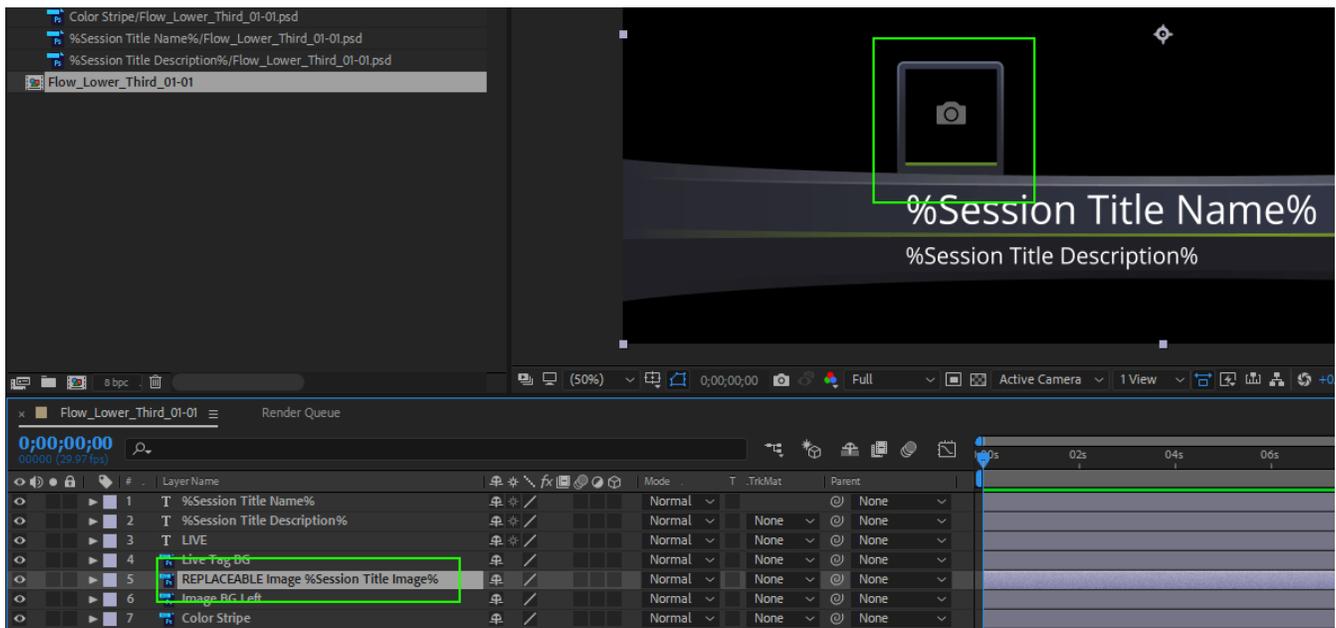


FIGURE 6-1

In the example above you can see the key %Session Title Image% applied to an After Effects® layer.

Hint: If you begin your project by importing a Photoshop® file, you can pre-enter the REPLACEABLE keyword and DataLink keys for the layers right in Photoshop. As you'd expect, these name values are preserved on import into After Effects®.

6.1.1 DATALINK BROWSER EXTENSION AND MORE

The list of DataLink sources is quite long, and even includes third-party applications. One of the most interesting sources of *DataLink* key/value pairs is a custom extension prepared by NewTek for the Chrome® web browser. Available without charge from the Chrome Web Store, DataLink™ Web allows you to easily populate both text and image DataLink keys from webpages.

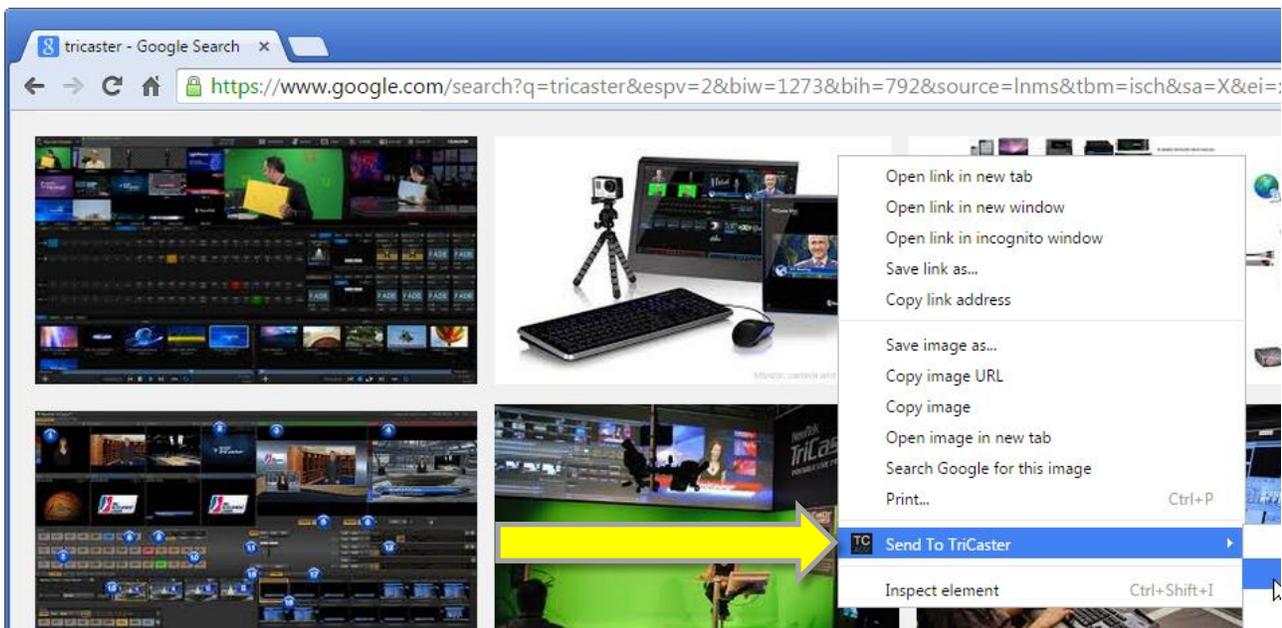


FIGURE 6-2

The *DataLink* keys and values are immediately available for use in NewTek live video mixer title pages, and elsewhere in the NewTek live video mixer. Simply select some text, or an image, and use the right-click context menu (or a hotkey) to update a DataLink key you have defined. Any title page using that key will immediately update.

6.2 LIVEGRAPHICS™ PRESETS

NewTek live production systems supporting LiveGraphics offer two different types of presets to control title animations and title content. These are referred to as Layer Presets and Data Presets, respectively. Both preset types are created using the Title Editor (Figure 6-3) on the target system.

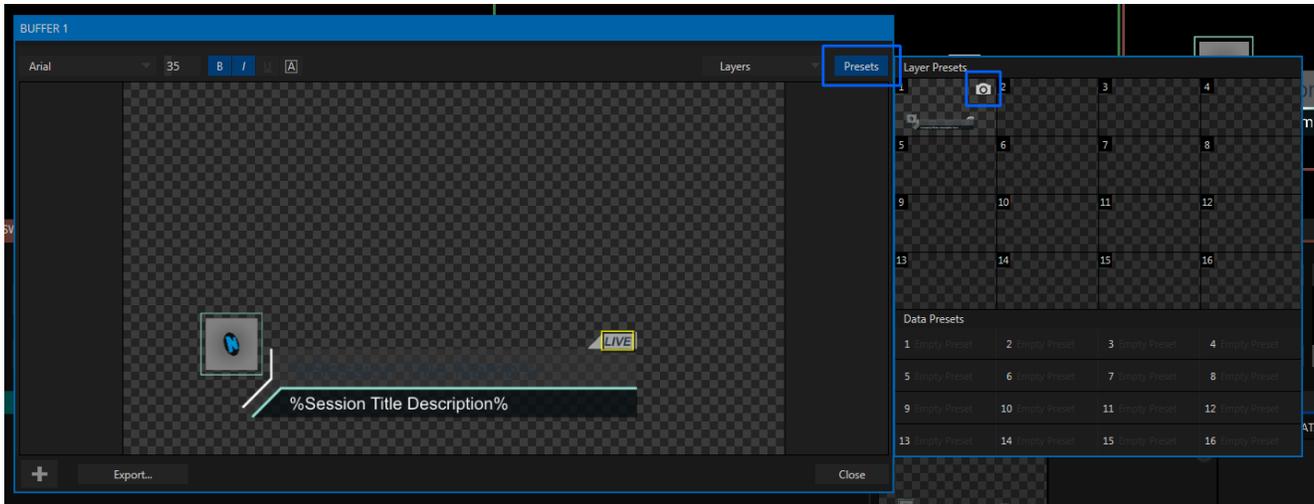


FIGURE 6-3

The documentation supplied with your TriCaster or VMC1 describes the Title Editor, and explains how to create and use Layer and Data Presets to manage the display, content and animation of your LiveGraphics.

6.2.1 EMBEDDING PRESETS

It takes time to prepare suitable presets for your LiveGraphic titles, and you won't want to have to do this each time you load one into a new live production session.

For this reason, you will very often want to save LiveGraphics with presets already embedded into them. Then, the next time you load your title they are all ready to go.

To store presets you have prepared, click the 'Export...' button in the Title Editor and save the LiveGraphic. You can export your work under a new name, or overwrite the original.

Hint: Data Presets are very useful. For example, you can populate 'player statistics' title pages for the entire team, and export the file, and then display each instance with a single click as desired. Prepare a similar page with player data (and headshots) for a second team, and export it using a different filename.

CREDITS

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