KEYLIGHT

USER GUIDE

VERSION 1.2V17

THE FOUNDRY.

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1 Introduction

Welcome to this User Guide for Keylight on After Effects.

Keylight is an industry-proven blue and green screen keyer. The core algorithm was developed by The Computer Film Company (now Framestore) and has been further developed and ported to After Effects by The Foundry.

About this Manual

Use the Getting Started chapter to see how a simple key is pulled using Keylight. The Basic Keying chapter goes over the most common parameters you'll need to pull a variety of keys. The Advanced Keying chapter explains how to tackle difficult keys.

Release Notes

For information on system requirements, new features, improvements, fixed bugs and known bugs & workarounds, see Appendix A: Release Notes on page 47.

Example Images

Example blue and green screen images for use with Keylight can be downloaded from our web site www.thefoundry.co.uk.

Installing Keylight 1.2v17 on After Effects

Please note that installing this version of Keylight overwrites any other versions of Keylight that have been installed in the Plug-ins folder.

If you would like to retain the version of Keylight shipped with After Effects, please move the existing **Keylight** folder to an alternate location (outside the **Effects** folder) and then copy the **Keylight_1.2_AE** folder from the download into the **Effects** folder described below.

On Windows

Keylight is distributed as a software download from our web site at www.thefoundry.co.uk. To install Keylight on a computer running Windows follow these instructions:

1. Download the **.tgz** file from our web site at www.thefoundry.co.uk.
2. Unzip the file and copy the contents of the Keylight folder into the existing Keylight folder in the Adobe After Effects install directory:
   `<install directory>\Support Files\Plug-ins\Effects\Keylight`

On Mac

Keylight is distributed as a software download from our web site at www.thefoundry.co.uk. To install Keylight on a computer running Mac OS X follow these instructions:

1. Download the **.tgz** file from our web site at www.thefoundry.co.uk.
2. Unzip the file and copy the contents of the Keylight folder into the existing Keylight folder in the Adobe After Effects install directory:
   `<install directory>/Plug-ins/Effects/Keylight`

About The Foundry

The Foundry is a leading developer of visual effects and image processing technologies for film and video post production. Its stand-alone products include Nuke, Modo, Mari, Hiero, Katana, and Flix. The Foundry also supplies a suite of plug-ins, including Ocula, CameraTracker, Keylight, Kronos, and Furnace and FurnaceCore for a variety of compositing platforms, including Adobe® After Effects®, Autodesk® Flame®, Avid® DS™, and Apple's Final Cut Pro®. For the full list of products and supported platforms, visit our website at http://www.thefoundry.co.uk.

Nuke is an Academy Award® winning compositor. It has been used to create extraordinary images on scores of feature films, including Avatar, District 9, The Dark Knight, Iron Man, Quantum of Solace, The Curious Case of Benjamin Button, Transformers, and Pirates of the Caribbean: At World's End.

Modo brings you the next generation of 3D modeling, animation, sculpting, effects and rendering in a powerful integrated package.

Mari is a creative texture-painting tool that can handle extremely complex or texture-heavy projects. It was developed at Weta Digital and has been used on films, such as District 9, The Day the Earth Stood Still, The Lovely Bones, and Avatar.

Hiero is a collaborative, scriptable timeline tool that conforms edit decision lists and parcels out VFX shots to artists, allowing progress to be viewed in context, and liberating your finishing systems and artists for more creative tasks.

Katana is a look development and lighting tool, replacing the conventional CG pipeline with a flexible recipe-based asset workflow. Its node-based approach allows rapid turnaround of high-complexity shots, while keeping artists in control and reducing in-house development overheads. Extensive APIs mean it integrates with a variety of renderers and your pre-existing shader libraries and workflow tools.

Flix is a collaborative, visual story-development tool. It allows directors, editors, cinematographers, storyboard artists, and pre-visualization artists to explore ideas quickly, saving valuable time, and to easily collaborate on the visual story development of a film.

Ocula is a collection of tools that solve common problems with stereoscopic imagery, improve productivity in post production, and ultimately help to deliver a more rewarding 3D-stereo viewing experience.

CameraTracker is an After Effects plug-in allowing you to pull 3D motion tracks and matchmoves without having to leave After Effects. It analyses the source sequence and extracts the original camera's lens and motion parameters, allowing you to composite 2D or 3D elements correctly with reference to the camera used to film the shot.

Keylight is an industry-proven blue/green screen keyer, giving results that look photographed, not composited. The Keylight algorithm was developed by the Computer Film Company who were honoured with a technical achievement award for digital compositing from the Academy of Motion Picture Arts and Sciences.

Kronos is a plug-in that retimes footage using motion vectors to generate additional images between frames. Utilising NVIDIA's CUDA technology, Kronos optimises your workflow by using both the CPU and GPU.

Furnace and FurnaceCore are collections of film tools. Many of the algorithms utilise motion estimation technology to speed up common compositing tasks. Plug-ins include wire removal, rig removal, steadiness, deflicker, degrain and regrain, retiming, and texture tools.

2 Getting Started

This chapter shows you how to pull a simple key using Keylight.

Introduction

Keylight was first developed by The Computer Film Company to help with difficult keys in feature films. Over the years, Keylight has been refined in production on hundreds of films.

NOTE: When we refer to blue screens throughout the text we mean, of course, blue or green screens.

Quick Key

Keylight is available from the Effect - Keying menu in After Effects.

Consider this shot from The Saint, pictures courtesy of Framestore and Paramount British Pictures Ltd. The first image is the blue screen foreground that should be composited over the background shown in the second image.

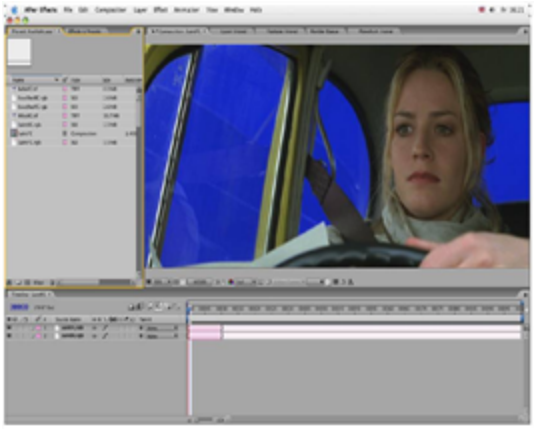
Blue Screen.

Background.

If you want to have a go of this shot, you can! The images can be downloaded from our web site and this quick key is also covered in the Tutorial Chapter. See Tutorial 1: Simple Key on page 32

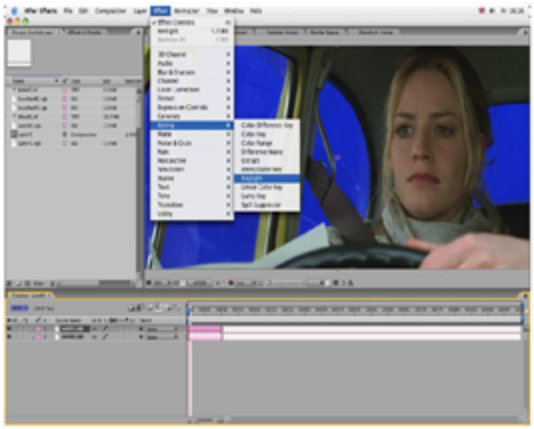
Throughout this user guide we assume a good understanding of After Effects. To perform this quick key, do the following:

1. Create a new composition using SaintFG.tif and SaintBG.tif. Layer the clips with the blue screen over the background as shown below.



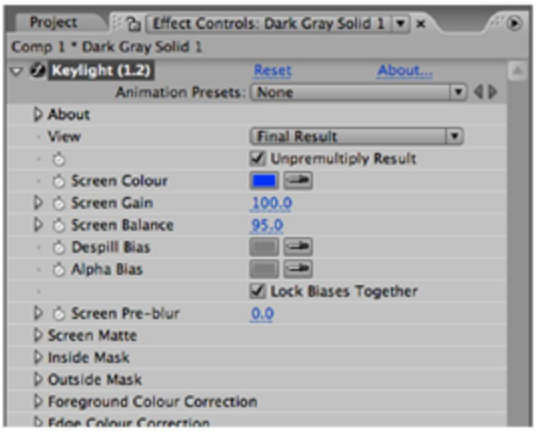
Screen Shot showing Saint blue screen.

2. Select the blue screen clip (SaintFG.tif) in the Time Layout window and apply Keylight from the Keying sub-menu of the Effect menu.



Apply Keylight from the Effect - Keying menu.

3. The Keylight parameters are shown below.



Keylight Parameters.

4. Select the Screen Colour eye dropper and click on the blue screen in the composition window. A good place to pick is the blue from the back windscreen as this has no reflections. Picking this blue will key the back windscreen perfectly leaving reflections in the side window.

Pick the blue from the back windscreen.

5. That's it. In many cases this is all you will need to do to perform a key, since selecting the screen colour creates a matte and despills the foreground. The final composite is shown below.

Final composite.

There are a couple of extra steps that can be taken to fine tune this key and these are discussed in Tutorial 2: Fine Tuning a Key on page 35.

Picking the screen colour may be enough for a lot of keys, but there are many more tools within Keylight that can be used to tackle more complicated shots. These are described in later chapters.

3 Basic Keying

The following section describes the parameters you need to do basic keying. This will give you enough to tackle most simple keys. A discussion of advanced parameters to fine tune and tackle complex keys can be found in the next chapter.

Basic Workflow

The first step is always to pick the **Screen Colour**. Then view the composite and the screen matte.

If there is blue spill on the composite pick skin tones for the **Despill Bias** from the foreground actor.

If the background is showing through the foreground or the foreground is showing on the background, you need to improve your matte using the **Clip Black** and **Clip White** parameters. In the next chapter we'll look at ways of doing this with inside and outside masks. Inside Mask Tip on page 28

Screen Colour

The Screen Colour is probably the most important parameter and you should always pick the screen colour before doing anything else. It should be set to the colour of the green or blue curtain behind the foreground object. View the Source image in the Composite window, select the eye dropper and pick the screen colour. Setting the Screen Colour will create a matte - the Screen Matte - and despill the foreground. In some cases this is enough to get a decent key. For more information on Screen Colour see Screen Colour on page 15.

The image below shows a well lit blue screen behind an actor. You should note that repeatedly picking the Screen Colour will override any previous selections. It will not add to previous selections and key more of the image with each click.

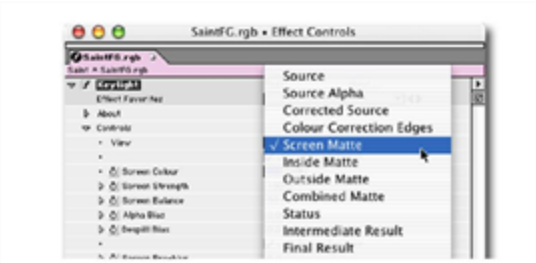
Blue Screen.

NOTE: You should always pick screen colours from the Source image and not the Final Result.

TIP: It's worth picking several different blues and for each one viewing the matte and status to judge the key.

View

After picking the Screen Colour it's useful to be able to check the quality of the key by viewing the composite and the screen matte. You can do this using the View Menu, shown here.



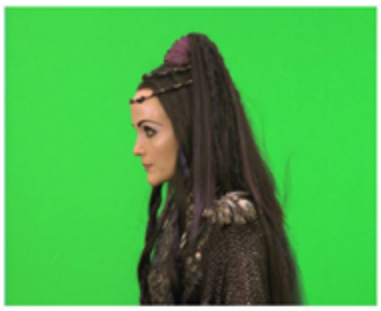
View Menu.

The options you'll use the most are:

- **Screen Matte** - this renders the matte created by picking the screen colour.
- **Status** - this renders an exaggeratted view of the mattes so that minor problems are shown clearly.
- **Final Result** - this renders the foreground composited over the background using all mattes, spill and colour corrections.

Status

The Status is one of the options in the View menu and shows an exaggerated view of the key so that you can make a more informed decision when refining the composite. The image on the left shows the Status display after the screen colour has been picked from the image on the right.



Green Screen.

Status.

Three colours are displayed. Black pixels show areas that will be pure background in the final composite. White pixels show areas that will be pure foreground. Mid-grey pixels will be a blend of foreground and background pixels in the final composite. You need grey pixels around the edge of the foreground to get a good key at the foreground edge. However, if there are grey pixels where there should be pure background, you should try to remove these with the **Screen Strength**, **Clip Black** or Outside Mask. If you have grey pixels where there should be pure foreground this tells you that parts of the background will show through here and you will need to firm up the foreground with **Clip White** or an Inside Mask.

Pixels that are a blend between the foreground and background are shown in just one shade of grey. This is done to highlight potential problems with the key. These grey pixels may represent a foreground/background blend of 50/50 or 99/1. No distinction is made as to this ratio.

You may occasionally see other colours in the Status View and these are covered on Status View on page 21 in the Advanced Keying Chapter.

Despill Bias

Although the foreground is despilled automatically, you may find the need to pull out a little more of the screen colour after picking from the image. You can do this with the Bias controls.

Exaggerated blue spill.

Despill Bias used to remove the blue spill.

By default the Bias controls are locked together, which in the vast majority of cases, is the best way to use them. See Despilling in the Advanced keying section for a look at a case where unlinking the bias controls is a good tactic.

Thus, using either bias control colour dropper, pick the predominant foreground colour. In the majority of cases it's best to pick skin tones from the foreground actor, as viewers tend to be most tuned to colour shifts in these areas.

4 Advanced Keying

The following section describes the parameters you need to fine tune keys and get the most out of Keylight. Basic parameters covered in the previous chapter may also be covered here in more detail.

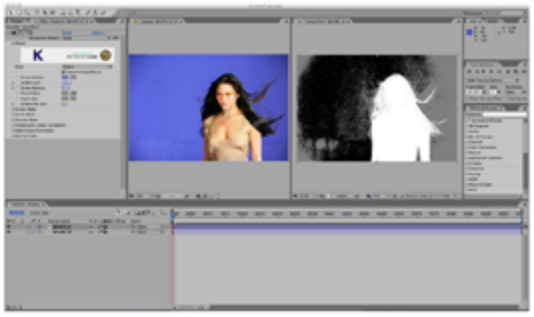
Screen Colour

The screen colour represents the colour of the pure blue (or green) screen. The first thing you should do when pulling a key is pick the Screen Colour. This single colour has a primary component, blue or green, and that has a saturation. Once the screen colour has been picked, Keylight analyses all the pixels in the image and compares the saturation of the primary component in each of these pixels with the corresponding saturation of the screen colour, setting the alpha and modifying the colour accordingly.

TIP: Picking different shades of blue or green from the background can give quite different results. It's worth experimenting with different screen colours if your initial pick didn't give a good key.

Workflow Tip

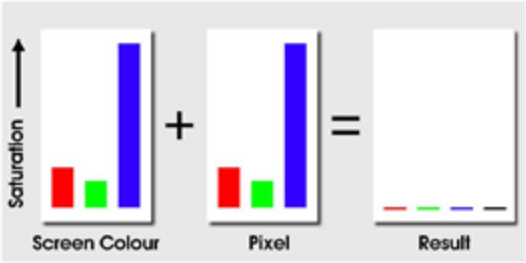
It can also be useful to view the Status and Source side by side as shown below so that you can repeatedly pick from one while viewing the result in the other window.



Two Views.

Background Pixel

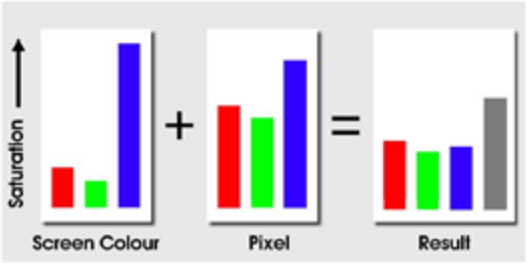
If the saturation of the pixel in the image is as strong, or greater than the screen colour, then it'll be a pixel from the blue screen background, and that pixel will be set to completely transparent and black.



Blue screen pixel set alpha to zero.

Edge Pixel

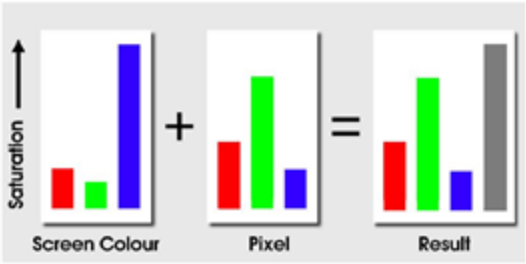
If the saturation of the pixel is less than the screen colour, then it'll be the edge of the foreground object, and we subtract some of the screen colour from the pixel (de spilling) and set the image to semi-opaque.



Edge pixel gives partial alpha.

Foreground Pixel

If the primary component in the pixel is not the same as the primary component of the screen colour we have a foreground pixel, and the alpha is set to completely opaque. The pixel colour is not modified.



Foreground pixel gives full alpha.

NOTE: You should note that the Screen Colour is a single colour. You are not picking lots of colours that are keyed out.

Despilling

Although picking the screen colour will remove blue spill, it may not be enough. To despill more use the Despill Bias control. By default this is linked to the Alpha Bias. In the rare case that the screen has been so badly shot that it's not really blue or green anymore, the alpha bias can be used to get a good key.

Despill Bias

Consider the image on the left from the film "Merlin". Pulling a default key from this will give the extreme blue spill around the edges of her hair as shown in the image on the right.

Original blue screen.

Default key.

To reduce this select the Despill Bias colour and pick skin tones from the foreground image. This result is shown in the image on the left. The alpha channel is shown on the right.

Despill Bias.

Alpha.

Alpha Bias

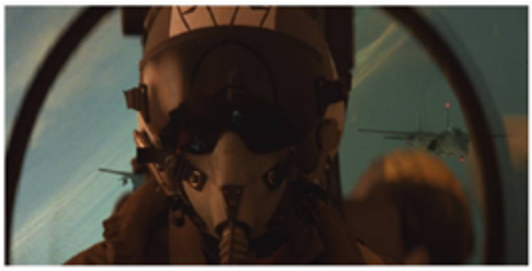
You should not normally need to adjust the alpha bias separately to the Despill Bias, but on those rare occasions when your green screen is more red than green it can be used to put things right in what would otherwise be an un-keyable shot. Consider the image shown below.

Is this the worst green screen you've ever seen?

This shot, from the film Executive Decision, is actually a green screen although it doesn't look it. The colour of the screen in the background is around 28% red, 25% green and 8% blue. This is in fact red, but only just. Note that the pilot in the cockpit is predominantly brown, at around 42% red, 25% green, 15% blue. So a default key from that screen colour would make the foreground transparent (see the image below) as it is a more saturated red than the red of the screen colour.

Default key showing the transparency of the foreground.

In this situation, the Alpha Bias can help. View the Source, unlink the Bias controls, then select the Alpha Bias and pick colours from his mask. Now pick the same colours for the Despill Bias. This gives the result shown below.



Alpha Bias and Despill Bias.

Screen Gain

The screen gain controls how much of the screen colour is removed to make the screen matte. Increasing this value will key more. For the most part, a better way of improving the matte is using the Clip Black and Clip White controls.

Status after picking the Screen Colour.

Status showing the increase in Screen Gain.

Increasing the screen gain too much will lead to the background showing through the foreground and edge detail will be destroyed. Below, the image on the left shows this quite well. Note the steering wheel is black when it should be white. If you look at the composite you will see the background showing through here. Also, some of the fine hair detail on the actor, visible in the image on the left, has been eroded in the image on the right.

Screen Gain = 100 giving a good screen matte.

Screen Gain = 150 giving background show through and over eroded edges.

Screen Balance

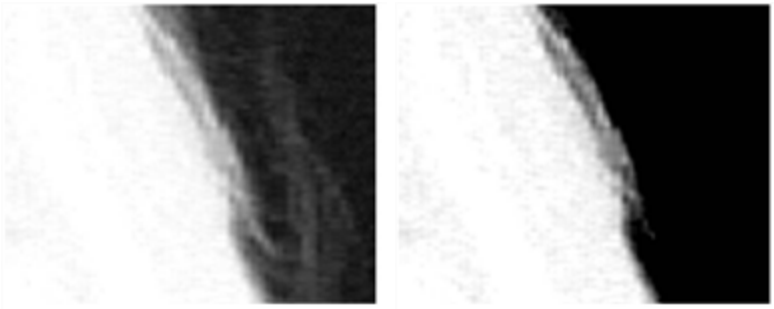
Saturation is measured by comparing the intensity of the primary component against a weighted average of the two other components. This is where the **Screen Balance** control comes in. A balance of 100% means that the saturation will be measured against the smallest of the other two components in the screen colour.

A balance of 0% means that the saturation will be measured against the larger of the other two components. A balance of 50% will measure the saturation from the average of the other two components.

The appropriate balance point for each image sequence you key will be different depending on the colours in that image. Generally speaking, blue screens tend to work best with a balance of around 95% and green screens with a balance of around 50%. If the key is not working too well with these settings, try setting the balance to about 5%, 50% and 95% and see what works best.

Clip Levels

The clip levels are adjusted using two parameters - **Clip Black** and **Clip White**. Any alpha value at or below Clip Black will be set to zero and any alpha value at or above Clip White will be set to 100. Below, the image on the left shows the original alpha of an image and the image on the right shows the result of clipping it.



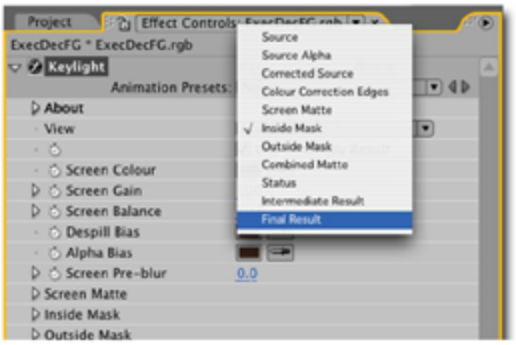
Clip Black = 0. Clip Black = 50.

Notice how the grey areas in the black background have been reduced and that the grey edges have hardened up considerably. When compositing, the Clip Black control can be used to improve the background image if parts of the foreground are showing through. The Clip White control on the other hand can be used to firm up the centre of the matte, making it less transparent to the background.

NOTE: You need to be really careful if you chose to use Clip Black and Clip White that you don't destroy the edges on your foreground. It is possible to use Clip Rollback to compensate for this.

View

After picking the Screen Colour it's useful to be able to view the key in different ways. You can do this using the View Menu, shown here.



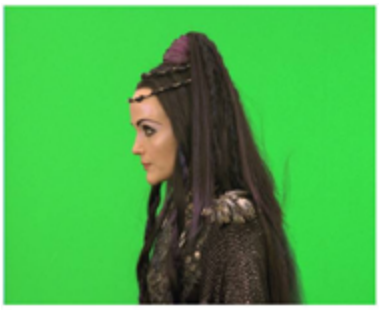
View Menu.

Here's the complete list of options and what they do.

- Source - displays the blue or green screen.
- Source Alpha - displays the alpha channel embedded in the blue or green screen.
- Corrected Source - displays the uncomposited source image with any colour corrections applied.
- Colour Correction Edges - displays the foreground edges as a matte that will be colour corrected using the controls in the Edge Colour Correction folder.
- Screen Matte - displays the matte created as a result of picking the screen colour.
- Inside Mask - displays the mask that firms up the foreground.
- Outside Mask - displays the mask that cleans up the background.
- Combined Matte - displays all the screen matte, inside and outside masks and any source alpha added together. The combined matte is used to composite the foreground over the background layer.
- Status - displays an exaggerated view of the key so you can make a more informed decision on how to improve the result. Status View on page 21
- Intermediate Result - is used for multi-pass keying. The alpha is set as per normal, but the RGB values are not modified from the original source image. Inside Mask Tip on page 28
- Final Result - renders the foreground composited over the image on the background track. This image is premultiplied. In other words, the RGB values of pixels have been multiplied by their corresponding alpha channel values.

Status View

The Status View is one of the options in the View menu and shows an exaggerated view of the key so that you can make a more informed decision when fine tuning the composite. Below, the image on the left shows the Status after the screen colour has been picked from the image shown in the image on the right.

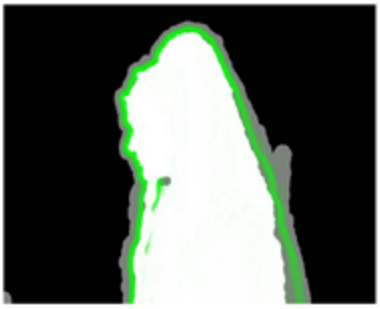


Green Screen.

Status.

Three colours are displayed. Black pixels represent pure background in the final composite. White pixels are pure foreground and grey pixels are a blend of the foreground and background pixels. The grey is just one colour to highlight any areas that are not pure foreground or background. Grey pixels do not mean the key is poor - the final composite may be fine.

You may occasionally see other colours in the Status View. Below, the image on the left shows black, white, grey and green pixels. The green pixels are a warning. They show you the parts of the Screen Matte that have changed through processing the matte (clipped, softened or eroded).

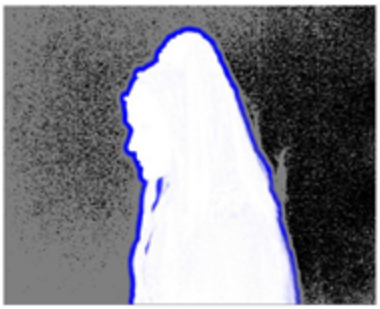


Status showing processing of the Screen Matte.

Result showing Screen Matte Replace Colour.

These areas have had the correct amount of spill removed, but the alpha has subsequently changed and the composite may no longer look right. This can be corrected using Replace Colour to put back colour in these areas. Above, the image on the right is an extreme example to illustrate the point. The Replace Colour has been set to pure red and you can see that this mirrors the green pixels in the Status View.

Similarly you may see blue pixels in the Status. These represent processed pixels in the Inside Mask that affect the despill of the foreground. The Replace Colour in the Inside Mask folder will be used to modify these pixels. Another extreme example is shown below on the right. The Replace Colour is set to pure yellow and the Replace Method is Hard Colour.



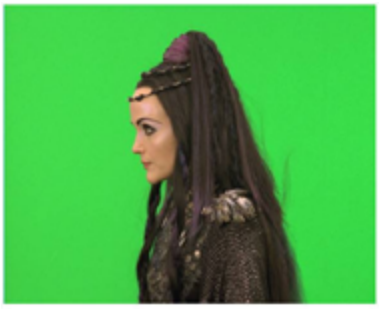
Status showing how the Inside Mask will affect the foreground.

Final Result showing the Inside Mask Replace Colour.

You may also see dark red pixels which indicate areas where an outside mask has been used to reduce the transparency of the image.

Screen Matte

The Screen Matte is the result of pulling the blue or the green from the image and making those regions transparent.



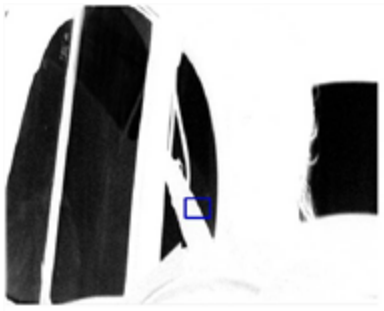
Green screen.

Screen Matte.

Once you have done this you will want to firm up the foreground (make it more white) and clean up the background (make it more black). This can be done by processing the Screen Matte.

Clip Rollback

Pulling a Screen Matte will typically produce lots of transparency (grey) in the matte at the edges. This is good since this is what you need to key hair well. You may also get transparency in the foreground.



Screen matte highlighting the close up view as shown on the right.

Close up screen matte showing unwanted (grey) transparency in the (white) foreground.

This is bad as your subject will appear slightly see-through, and this should be corrected. You can do this with an inside mask shape, or you can use the Clip White parameter to turn these grey pixels white. This cleans up the foreground but it will also destroy the edge detail you want to keep. This is where Clip Rollback comes in. This is used to put back the edges to restore the detail that was lost. A rather exaggerated clip rollback is shown below in the image on the right to illustrate the point.

Clip White has been used to remove the unwanted grey pixels in the white matte.

Clip Rollback has been used to reduce the unwanted erosion of the edge.

Grow & Shrink

This control should not normally be used as eroding the edges can produce a very poor key. However, this parameter allows you to grow (if greater than zero) or shrink (if less than zero) the alpha in the Screen Matte. These controls are sub-pixel accurate.

Screen Matte. Eroded Matte.

There is, however, one circumstance where heavy eroding is useful and that is for producing a matte used as an inside mask. See Inside Mask Tip on page 28.

Despot

This controls how much to simplify the matte. It coagulates similar regions so that, for example, black specks in the white matte can be absorbed by the surrounding white areas. Increasing the **Screen Despot Black** will remove isolated spots of black in the white matte. Increasing Screen Despot White will remove isolated spots of white in the background up to that size.

Eroded matte. Despot.

Colour Replacement

Remember that Keylight does two things - it removes the screen colour to despill the image and generates an alpha (Screen Matte) to composite the foreground over the background layer.

If you then process the Screen Matte, for example, by eroding the matte or changing the clip levels, Keylight will be removing the wrong amount of screen colour from the pixels whose transparency have now changed. The **Replace Method** instructs Keylight how to deal with such pixels. The Status will display which pixels use a replace method. Those pixels who use a replace method because the Screen Matte processing tools modified the transparency will be green, whilst those pixels whose transparency was modified by the inside mask will be blue. See Status View on page 21.

There are four options to the replace method, these are:

1. **None -** the despilled image is left untouched if the alpha is modified.
2. **Source -** the image will have a corresponding amount of the original pixel (screen colour and all) reintroduced/removed if the alpha is changed.
3. **Hard Colour -** the despilled image has a corresponding amount of the replace colour added for any increase in alpha.
4. **Soft Colour -** the despilled image has a corresponding amount of the replace colour added for any increase in alpha, however, it attempts to modulate the luminance of the resulting pixel so that it matches the original pixel. This will give a more subtle result than the Hard Colour option.

Inside & Outside Masks

If you can't adequately improve the Screen Matte using the Clip Levels, you can input a mask that defines the foreground or background. The Inside Mask makes the foreground less transparent and the Outside Mask is used to clean up the background that might have bits of the foreground showing through. The outside mask is often used to clean up screens that are not a constant colour or have lighting rigs in shot by forcing the alpha transparent.

Green Screen with lighting rig visible.

The inside mask can be used to keep elements in the foreground that you don't want to lose (an actor's blue eyes in front of a blue screen). These masks should normally be softened to blend into the Screen Matte.

Below, the image on the left shows an After Effects Mask drawn around the lighting rig on the left side of the screen. When this is used as the Outside Mask and the View control set to render the Outside Mask, you will see the image displayed in the image on the right.

Mask drawn round the lighting rig.

Mask used as an Outside Mask and Viewed.

The outside mask forces that part of the image to be in the background thus keying out the rig. The Screen Matte shown below shows the matte pulled when the green screen is picked. When the Outside Mask is subtracted from the Screen Matte we get the Combined Matte, shown below in the image on the right.

Screen Matte.

Combined Matte.

Here you can see the change in the matte that will result in the lighting rig being keyed out in the final composite. If more than one mask is required to remove garbage, then use the masks to create an embedded alpha channel in the image and set the Source Alpha to Normal. See Source Alpha on page 28.

Creating an Inside/Outside Mask

To create an inside or an outside mask, do the following:

1. Draw a mask on the image using Pen Tool. By default, your mask will be named Mask 1.
2. Next to the timeline, expand the **fg1**.**rgb** layer and **Masks**, and in the **Mask** dropdown, select **None** instead of the default **Add**.
3. If you're creating an inside mask, in the Keylight controls, click **Inside Mask** > **Inside Mask** and switch from **None** to **Mask 1**.

   Similarly, if you are creating an outside mask, in the Keylight controls, select **Outside Mask** > **Outside Mask** and switch from **None** to **Mask 1**.

Source Alpha

This parameter determines how to deal with any embedded alpha in the original image.

- **Ignore** - this will not use any embedded alpha in the key.
- **Add to Inside Mask** - the embedded alpha is added to the inside mask.
- **Normal** - the embedded alpha is used to key the layer as normal. It is added to Keylight's screen matte and can be useful if requiring complicated multi-shaped masks to rotoscope out garbage.

Inside Mask Tip

An alternative and very powerful use of the Source Alpha option is to provide a solid inside mask pass-through in multipass keying. In other words you can use Keylight to pull a really harsh eroded matte that can be used to stop print through in a second key that concentrates on the edges. Print through is where the background shows through the foreground in a composite. Here's how you do it.

1. Apply Keylight to your footage and pick the screen colour.
2. Using Clip White, Clip Black and Screen Shrink/Grow while viewing the Screen Matte, get a very harsh eroded matte as shown below.

Highly eroded matte.

3. Switch the View to Intermediate Result to pass through the RGB channels unaffected with the screen matte in the alpha channel. It looks a bit odd but don't worry.
4. Now apply a second Keylight and pick the screen colour as normal. Looking at the Status display as shown below, you should be able to see the background showing through the foreground white areas.

Status for default key showing foreground transparency.

5. To fix this, we'll use the harsh matte we pulled in the first key. In the **Inside Mask** group, switch **Source Alpha** from **Ignore** to **Add To Inside Mask**. The result is shown below.

Status showing improved foreground as a result of adding the harsh matte from the first key.

6. With a good foreground, you can now concentrate on pulling a subtle key for the edges without worrying about the background showing through the foreground. You may also need to use a very rough garbage mask to improve the background particularly for unevenly lit screens.

Colour Correction

The Colour Correction parameters allow you to modify the foreground colours in your composite. In particular, reflected blues and greens from the screen can be suppressed.

Saturation - this control will increase or decrease the colour saturation of the image, making colours more or less intense.

Contrast - the contrast is the ratio of brightest tones to the darkest. Increase this value for a contrasty image and decrease it to wash it out.

Brightness - the brightness equates to the overall luminance of the image. Increase this value to make the image lighter and decrease this value to make it darker.

Colour Suppression

Suppress - this controls colour suppression in the image. You can choose to remove a specific primary, either Red, Green, Blue or their complements, Cyan, Magenta or Yellow. For green screens you may find it helpful to suppress green.

Suppression Balance - determines what to reduce the suppressed component to. If set to 0%, it will be the smallest of the other two components, if set to 100% it will be the largest of the other two components. Otherwise, it will be to a balanced average.

Suppression Amount - determines how strongly you want to reduce the indicated component.

Colour Balancing

These controls are used to alter the colour balance of the image. Choose a hue and saturation (either via the sliders or the colour balance wheel) to shift the entire colour balance of the image.

Edge Colour Correction

The Edge Correction parameters allow you to colour correct edges to seat the composite into the background. To see the areas considered an edge that you will be affecting, select the Colour Correction Edges from the View menu.

Enable Edge Colour Correction - use this option to separately colour correct edges of the image independently from the overall colour correction.

Edge Hardness - this determines how strongly to blend between the edge correction and the main correction.

Edge Softness - this will soften the region considered to be the edge by this amount (in pixels).

Edge Grow - this will grow the region considered to be the edge by this amount (in pixels).

Saturation - these controls determine how much to scale the saturation of the image.

Contrast - this control increases/decreases the contrast on the region considered to be the edge.

Brightness - this control brightens the region considered to be the edge.

Edge Colour Suppression

Controls the colour suppression in the image.

Suppress - Choose to completely remove a specific primary, either Red, Yellow, Green, Blue or their components, Cyan, Magenta or Yellow**.**

Suppression Balance - determines what to reduce the suppressed component to. If set to 0%, it will be the smallest of the other two components, if set to 100% it will be the largest of the other two components. Otherwise, it will be to a balanced average.

Suppression Amount - determines how strongly you want to reduce the indicated component.

Colour Balancing

These controls are used to alter the colour balance of the image edges. Choose a hue and saturation (either via the sliders or the colour balance wheel) to shift the entire colour balance of the image.

Source Crops

The Source Crops enable you to quickly cut out lighting rigs or other unwanted elements using vertical and horizontal lines.

Keylight requires access to source pixels that lie off the edge of the source image. The cropping controls provide access to all the controls required for specifying how pixels are treated at these edges and where they appear. The built-in crop controls are also useful for removing unwanted black pixels at the edge of video footage.

X Y Method - determines the behaviour of the image at the left and right crop boundaries. Four edge methods are supplied:

- **Colour -** fills the area between the crop line and the edge with the Crop Colour.
- **Reflect -** reflects pixels about the current crop line. In other words, it copies pixels from the other side of the current crop line into the area between the current crop line and the screen edge.
- **Repeat -** copies pixels on the crop boundary to the screen edge.
- **Wrap** - copies pixels from the area between the opposite crop line and its screen edge to the area between the current crop line and its screen edge.

NOTE: Horizontal and vertical crop boundaries can have different edge methods, Cropping is often used to remove unwanted pixels at the edge of an image. If a video clip is digitized badly you may get black edges left and right. These can be easily removed by moving the vertical crops and setting the edge method to Reflect.

Edge Colour - sets the fill colour used when the edge method is set to Colour.

Edge Colour Alpha - sets the fill colour transparency.

Left, Right, Top, Bottom - use these controls to set the crop positions. Lines will be overlaid in the display enabling you to set the various positions by eye.

NOTE: The position of the crop lines can be changed by clicking and dragging them directly on the screen.

5 Tutorial

We have included several tutorials with example images that you can use to practice Keylight.

Introduction

This section includes the following tutorials:

- Tutorial 1: Simple Key
- Tutorial 2: Fine Tuning a Key
- Tutorial 3: Extreme Blue Spill
- Tutorial 4: A Red Green Screen
- Tutorial 5: Inside & Outside Masks

Example Images

The tutorial images referred to in this chapter can be downloaded from our web site www.thefoundry.co.uk.

Tutorial 1: Simple Key

Using the blue screen clip from The Saint, you will composite the actor over the background. You will learn how to:

- Apply Keylight to a layer.
- Pick the Screen Colour.
- View the Final Result.

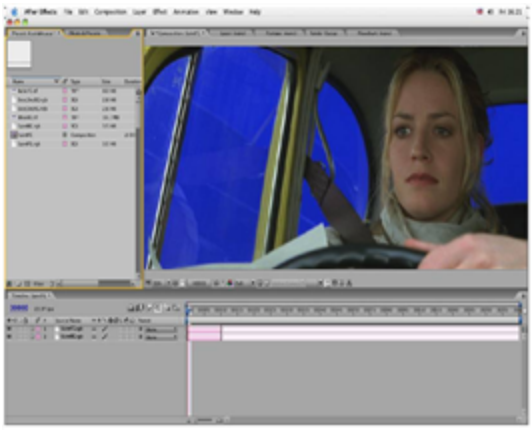
The clips you will need for this task are called SaintFG.tif and SaintBG.tif, pictures courtesy of Framestore and Paramount British Pictures Ltd. for the film The Saint. You should import them into After Effects and create a new composition containing the blue screen of Elizabeth Shue layered over the road.

Blue Screen - saint.tif

The image above is the blue screen foreground that should be composited over the background shown below.

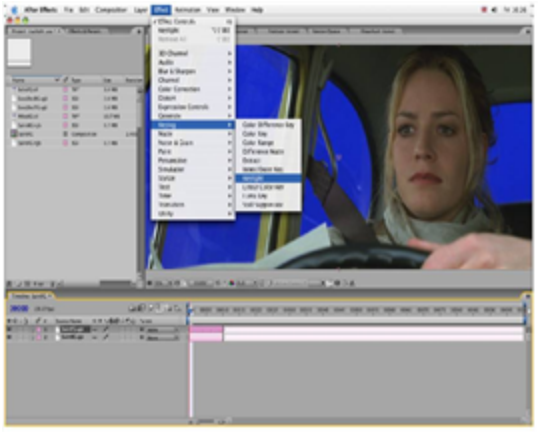
Background - road.tif

1. Create a new composition using SaintFG.tif and SaintBG.tif, layer the clips with the blue screen over the background as shown below.



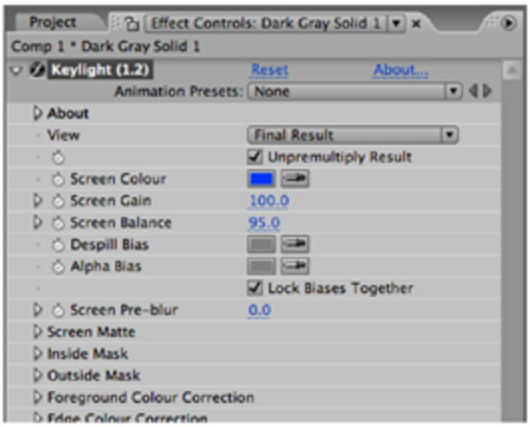
Screen Shot showing Saint blue screen.

2. Select the blue screen clip (SaintFG.tif) in the Schematic window and apply Keylight from the Effect - Keying menu.



Apply Keylight from the Effect - Keying menu.

3. The Keylight parameters are shown below.



Keylight Parameters.

4. Select the Screen Colour eye dropper and click on the blue screen in the composition window. A good place to pick is the blue from the back windscreen as this has no reflections.

Pick the blue from the back windscreen.

5. That's it. In many cases this is all you will need to do to perform a key, since selecting the screen colour creates a matte and despills the foreground. The final composite is shown below.

Final composite.

There are a couple of extra steps that can be taken to fine tune this key and these are discussed in Tutorial 2: Fine Tuning a Key on page 35.

Tutorial 2: Fine Tuning a Key

Using the images from the film The Saint, you will learn how to fine tune the key pulled in Tutorial 1. You will learn how to:

- Use Status to judge the quality of the key.
- Use the Screen Gain to improve the background.
- Use the Despill Bias to remove more blue spill.

1. Create a new composition using SaintFG.tif and SaintBG.tif. Apply Keylight to the blue screen layer. Select the Screen Colour eye dropper and click on the blue screen in the composition window.

NOTE: These steps were covered in greater detail in the previous chapter.

2. Before we do anything else we need to look at the quality of the key so far. On first inspection, the composite looks pretty good, but it's hard to judge. To see any potential problems more clearly, switch to the Status view as shown below.

Status showing grey pixels in the background.

Here we can see that the windscreens are a mixture of black and grey pixels. The black pixels tell us that pure background will be seen here in the final composite. The grey pixels tell us that there will be a mix of foreground and background pixels. What we want is a clean background showing through the windows, but with some reflections in the side window preserved. In other words we need mostly black pixels with a few grey ones.

3. The image below shows the Status view that we're aiming for. The background has been cleaned up and we still have some reflections in the side window. To get this you should increase the Screen Gain from 100 to 112.

Improved background with Screen Gain.

4. Finally, if you look closely at the composite you will see a tiny amount of blue spill on the woman's hand and in her hair. This was from reflected light from the blue screen. Pick skin tones for the Despill Bias to remove it.

Final Composite.

Tutorial 3: Extreme Blue Spill

This is a really interesting clip from the film Merlin. The results with Keylight are certainly not perfect, indeed it is unlikely that you will ever end up with a truly realistic looking shot. However, there are some interesting things to observe. You will learn how to:

- Reduce the blue spill using Screen Balance and Despill Bias.
- Improve the foreground opacity using Alpha Bias.

1. Load the MerlinBlueFG.tif and MerlinBlueBG.tif clips and apply Keylight.

A tricky blue screen.

2. Pick the Screen Colour using the eye dropper.

Serious blue spill. Pick a pure blue pixel away from the hair.

3. Increase the Screen Gain from 100 to 105. This will clean up a little of the background.
4. Alter the Screen Balance from 95 to 0 as shown below. This step is a bit subjective, but improves the blue spill.

Adjust the Screen Balance.

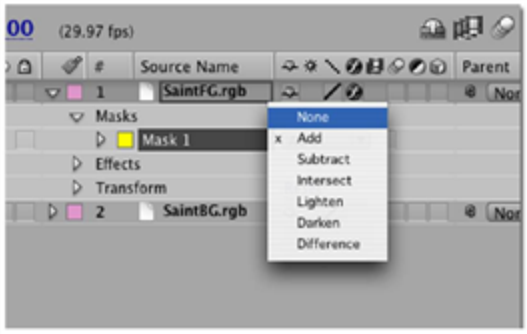
5. Now let's try and get rid of that blue spill. switch off Lock Biases Together and pick skin tones for the Despill Bias. When you do this the image and the screen colour will have the blue component scaled up before the key is pulled so that more blue is removed.

Despill Bias.

6. You will notice that Miranda Richardson's face now has a number of blue highlights, due to the transparency, that we should fix. The best way to do this is by drawing a spline round the face as shown below and using it as an Inside Mask.

Inside Mask spline.

7. Refer to your After Effects guide for more information on masks, however, select the pen tool, draw a bezier spline around the face on frame 1 (Mask 1), switch this mask off () then in keylight set the Inside Mask to Mask 1 and Source to None. You should also soften the mask slightly by setting the Inside Mask Softness to 5.



Switch the Mask off.

8. To remove the blue highlights on the cheeks, you need to set the Replace Method to Soft Colour rather than Source.

Replace - Source.

Replace - Soft Colour.

9. View Final Result as shown below.

Final Key.

Tutorial 4: A Red Green Screen

Using the images from the film Executive Decision, you will learn how to pull a key from a poor green screen using the Despill Bias control. You will learn how to:

- Pick the Screen Colour.
- Use Despill Bias and Alpha Bias.
- Produce a final composite.

The images you will need for this tutorial are called ExecFG.

1. Load the pictures ExecFG.tif and ExecBG.tif. Apply Keylight.

Poor Green Screen.

The foreground image is actually a green screen shot although it doesn't look it. If you analyse the pixels it's slightly more red than green. To key this, we'll have to fool Keylight.

2. Pick the Screen Colour. You should go for the slightly darker green patch to the left of the pilot. Although feel free to experiment picking different parts of the green screen. The initial selection gives the result shown below.

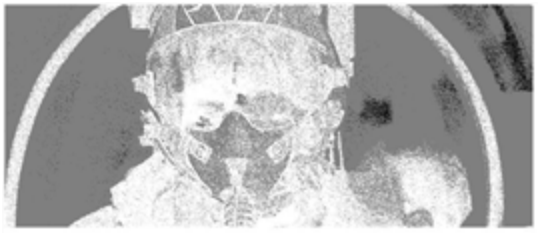
Default key.

3. To fix this we need to tell Keylight to scale down the red component to make the green the most dominant so that it keys correctly.

   To do this pick colours from the mask for both the Despill Bias and Alpha Bias. The result is shown below.

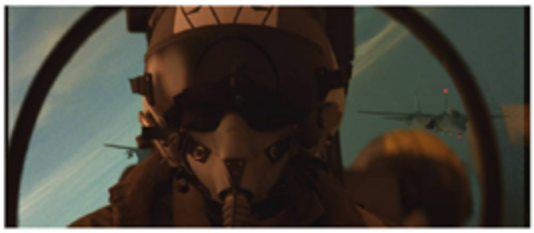
Despill Bias and Alpha Bias.

4. If you look closely, the background and foreground needs cleaning up. The image below shows the Status View. We will use the Screen Matte tools to make the cockpit windows black and the pilot white.



Status View.

5. Increase Clip Black to 20 to remove some of the foreground showing through the background. Decrease Clip White to 70 to improve the opacity of the foreground. Increase Screen Softness to 1, Screen Despot Black to 2 and Screen Despot White to 2.



Composite.

6. Use the Screen Matte Replace Method to pull some of the original image through the composite.
   This improves the apparent graininess in the foreground. The images below shows the differences.

Close up view. The left image has Replace Method set to Source. The right image has Replace Method set to None.

Tutorial 5: Inside & Outside Masks

Using the 16-bit blue screen test card image you will learn how to:

- Use Inside and Outside Masks.
- Use the Replace Method to put back keyed out colours.
- Process the Screen Matte.

The clips you will need for this task are called TestCard.cin and ColourGrid.cin

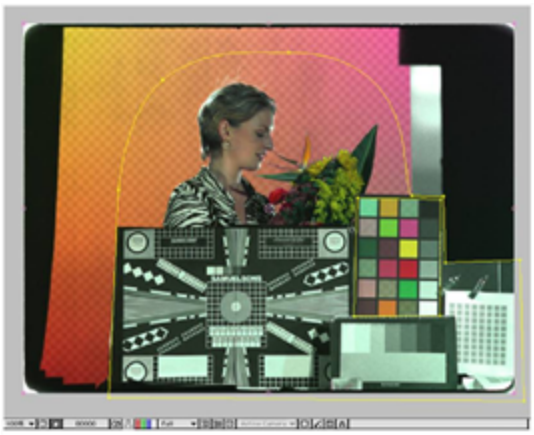
1. Start After Effects. Create a new 16-bit workspace. Import the pictures TestCard.cin and ColourGrid.cin and put them into the composition layering the blue screen over the colour grid.

Test Card.

2. Apply Keylight to the blue screen layer and pick the blue from the image. Keylight will create a matte and despill the foreground as shown below.

Basic Key.

3. To remove the garbage around the subject we will use an outside mask. Using After Effects' masks, draw a spline around the person and test cards. This will be called Mask 1 by default. This is shown as the yellow line below.



Outside Mask.

4. In the Time Layout window twirl open the TestCard layer and Masks sub-layer and set the compositing mode from Add to None.
5. In Keylight, check that the Outside Mask to Mask 1 and switch Invert on or you'll be removing the person rather than the unwanted pixels at the screen edges.

Outside Mask.

6. You will have noticed the "dirt" around the subject's head.

Status View.

Clearly we have to improve the key. You can also see the faults in the matte if you view the Status as shown above.

7. Increase the Screen Gain to 110. This cleans up some of the background as shown below.

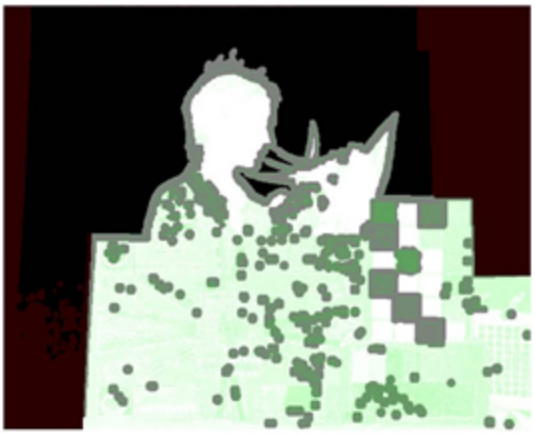
Increase Screen Gain.

8. Sections 7 to 10 will cover the changes to the Screen Matte that will improve the key. In the Screen Matte parameter area, decrease the Clip White from 100 to 70. This will improve the foreground as shown below.

   However, you will notice in the composite that the edges have become a little hard. We can fix this using the Clip Rollback and Screen Softness.

Clip White.

9. Increase the Clip Rollback to 3 and the Screen Softness to 1. It's also worth trying to improve the key around the spiky flowers with a sub-pixel erode of the edge. Change Screen Grow/Shrink to -0.5.



Rollback and Softness.

10. To remove the foreground spots increase Screen Despot Black to 1. The result is shown below.

Screen Despot Black.

11. The composite is shown below. You will see that the colours of the colour swatches have been altered by the Keylight algorithm. This can be fixed with an Inside Mask.

Composite.

12. Draw a rough mask (Mask 2) around just the colour swatches. Set the Inside Mask to Mask 2 and the Replace Method to Source to pull back the original colours.

Inside Mask and Replace Method Source.

Appendix A: Release Notes

This appendix describes the requirements, new features, improvements over previous versions, fixed bugs, and known bugs and workarounds in Keylight.

Keylight 1.2v17

This is a maintenance release of Keylight.

Requirements

Adobe After Effects CC or CC 2014 on Mac OS X 64-bit or Windows 7 64-bit or later.

Release Date

May 2015

New Features

There are no new features in this release.

Improvements

There are no improvements to existing features.

Fixed Bugs

- BUG ID 47809 - Mac OS X only: The **About** popup did not contain any text about The Foundry.
- BUG ID 48959 - Mac OSX only: Colour Balance Wheels occasionally flickered or disappeared on mouse-over.
- BUG ID 48961 - Adding Keylight to a project and then scrubbing in the timeline or adjusting certain controls in a layer caused After Effects to crash.
- BUG ID 48963 - Adjusting Keylight controls while the playhead was looping through a rampreview caused After Effects to crash.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.2v16

This is a maintenance release of Keylight.

Requirements

Adobe After Effects CC or CC 2014 on Mac OS X 64-bit or Windows 7 64-bit or later.

Release Date

December 2014

New Features

There are no new features in this release.

Improvements

There are no improvements to existing features.

Fixed Bugs

BUG ID 46776 - Mac OSX only: Colour wheels in the parameters panel did not draw in Mac OSX.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.2v15

This is a maintenance release of Keylight to support After Effects 12.0.

Requirements

Adobe After Effects CS6 or 12.0 Professional on Mac OS X 64-bit or Windows 7 64-bit.

Release Date

March 2013

New Features

Added support for After Effects 12.0.

Improvements

There are no improvements to existing features.

Fixed Bugs

There are no fixed bugs.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.2v14

This is a maintenance release of Keylight to support After Effects CS6.

Requirements

Adobe After Effects CS6 Professional on Mac OS X 64-bit or Windows 7 64-bit.

Release Date

April 2012

New Features

There are no new features.

Improvements

The artwork (banner, splash screen, and documentation layout) has been updated.

Fixed Bugs

There are no fixed bugs.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.2v13

This is a maintenance release of Keylight to support After Effects CS5.5.

Requirements

Adobe After Effects CS5.5 Professional on Mac OS X 64-bit or Windows Vista/7 64-bit.

Release Date

January 2011

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

There are no fixed bugs.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.2v12

This is a maintenance release of Keylight to support After Effects CS5 and is bundled with After Effects CS5.

Requirements

Adobe After Effects CS5 Professional on Mac OS X 64-bit or Windows Vista/7 64-bit.

Release Date

January 2010

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

BUG ID 194 - There was a multiprocessing rendering bug shown up as half screen renders. This has been fixed.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.2v11

Internal release only.

Keylight 1.2v10

This is a maintenance release of Keylight to support AE CS4 and is bundled with AE CS4 Professional.

Requirements

Adobe After Effects CS4 Professional on Mac OS X or Windows XP.

Release Date

June 2008

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

- About Dialog - on Mac OS X only, launching the About dialog and then clicking off the dialog forces the dialog into the background under the AE application window. Subsequent interaction with After Effects would fail. This bug has been fixed in this release.

Known Bugs and Workarounds

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Keylight 1.2v9

Internal release only.

Keylight 1.2v8

This is a maintenance release of Keylight to fix a bug. The version of Keylight that ships with AE CS3 Professional is Keylight 1.2v5.

Requirements

Adobe After Effects CS3 Professional on Mac OS X or Windows XP.

Release Date

January 2008

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

- Edge Colour Correction - BUG ID 3176 - colour correction of the edges failed to work. This has been fixed.

Known Bugs and Workarounds

- About Dialog - on Mac OS X only, launching the About dialog from the Keylight banner and then clicking off the dialog forces the dialog into the background under the AE application window. Subsequent interaction with After Effects would fail. To get round this, move the After Effects applcation to one side to reveal the Keylight dialog underneath, then click on the dialog to close it.

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Keylight 1.2v6

This is a maintenance release of Keylight to support AE CS3 on Mac and Win. The version of keylight that ships with AE CS3 Professional is Keylight 1.2v5. This release fixes a couple of bugs in that.

Requirements

Adobe After Effects CS3 Professional on Mac OS X or Windows XP/Vista.

Release Date

5 July 2007

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

- Adaptive Rendering - when scrubbing along the timeline with adaptive rendering switched on, the screen would freeze. An interrupt call was being treated as an error and a redraw wasn't called. This has been fixed.
- About Dialog - clicking on the Keylight banner to show the About dialog, caused the After Effects viewing window to render black. This has been fixed by disabling the ability to launch the dialog from the banner. Click on the standard Adobe "About" text at the top of the plug-in panel instead.
- Snapshot - BUG ID 231 - snapshot button broken when using Keylight with AE 7. This bug has been fixed in AE CS3.

Known Bugs and Workarounds

- About Dialog - on Mac OS X only, launching the About dialog from the Keylight banner and then clicking off the dialog forces the dialog into the background under the AE application window. Subsequent interaction with After

Effects would fail. To get round this, move the After Effects applcation to one side to reveal the Keylight dialog underneath, then click on the dialog to close it.

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Keylight 1.2v5

This is a maintenance release of Keylight to support After Effects CS3. This version ships with AE CS3.

Requirements

Adobe After Effects CS3 Professional on Mac OS X or Windows XP/Vista.

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

- Internal version number incremented to enable licensing to work correctly for the release version of CS3.

Known Bugs and Workarounds

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Known Bugs with After Effects and Workarounds

- Snapshot - BUG ID 231 - snapshot buttons broken when using Keylight with After Effects 7.0. If you apply Keylight and snapshot the image, change some parameters and recall that saved snapshot, it is displayed only for a fraction of a second. As a workaround use the Shift-F5 and F5 keys instead.

Keylight 1.2v4

This is a maintenance release of Keylight to support After Effects CS3.

Requirements

Adobe After Effects CS3 Professional on Mac OS X or Windows XP/Vista.

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

1. This version of Keylight was compiled against an updated version of the After Effects SDK (7 March 2007).

Known Bugs and Workarounds

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Known Bugs with After Effects and Workarounds

- Snapshot - BUG ID 231 - snapshot buttons broken when using Keylight with After Effects 7.0. If you apply Keylight and snapshot the image, change some parameters and recall that saved snapshot, it is displayed only for a fraction of a second. As a workaround use the Shift-F5 and F5 keys instead.

Keylight 1.2v3

This is a maintenance release of Keylight to support After Effects CS3.

Release Date

Unreleased.

Requirements

Adobe After Effects CS3 Professional on Mac OS X or Windows XP/Vista.

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

- Loading old projects - BUG ID 923 - loading AE7 projects that used Keylight 1.1 into AE8/CS3 with Keylight 1.2 would report a missing plug-in. This bug has been fixed.

Known Bugs and Workarounds

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Known Bugs with After Effects and Workarounds

- Snapshot - BUG ID 231 - snapshot buttons broken when using Keylight with After Effects 7.0. If you apply Keylight and snapshot the image, change some parameters and recall that saved snapshot, it is displayed only for a fraction of a second. As a workaround use the Shift-F5 and F5 keys instead.

Keylight 1.2v2

This is a Windows only maintenance release of Keylight to fix a bug.

Requirements

Adobe After Effects CS3 Professional on Windows XP/Vista only.

New Features

There are no new features.

Improvements

There are no improvements to existing features.

Fixed Bugs

- SSE2 - BUG ID 801 - the previous version of Keylight was compiled with a sse2 flag preventing it from working on very old hardware running Windows. This version has been recompiled with sse1 to fix this problem affecting a minority of customers.

Known Bugs and Workarounds

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Known Bugs with After Effects and Workarounds

- Snapshot - BUG ID 231 - snapshot buttons broken when using Keylight with After Effects 7.0. If you apply Keylight and snapshot the image, change some parameters and recall that saved snapshot, it is displayed only for a fraction of a second. As a workaround use the Shift-F5 and F5 keys instead.

Keylight 1.2v1

This is a maintenance release of Keylight to support After Effects CS3.

Requirements

Adobe After Effects CS3 Professional on Mac OS X or Windows XP/Vista.

New Features

- FLEXlm license support for After Effects Standard.
- Released as a universal binary for AE CS3 on Mac Intel and PPC.

Improvements

- The bias controls are now locked together by default.
- The Keylight algorithm has been tweaked for improved floating point handling.
- An environment variable (FOUNDRY_MAX_PROCESSORS 1) has been provided to switch off multi-processing as a temporary workaround for Bug ID 194.
- Keylight is now versioned by name. This allows multiple versions of the plug-in to coexist on a single host.
- 3GB Switch - the plug-ins have been compiled to take advantage of extended memory available in this mode.

Fixed Bugs

- Inside Mask, Source Alpha set to Add To Inside Mask. When viewing the Status with the source alpha added to the inside mask the combined mattes were not drawn on screen even though the matte had been added. This has been fixed so that the Status correctly shows these combined mattes.
- Source Crops - BUG ID 224 - changing the left crop value from 0 when X Method is Colour, produces a rendering error in the colour correction edges. This has been fixed.
- Installer - BUG ID 223 - Keylight could only be installed to the default directory. This has been fixed.
- Colour Correction Clipping - BUG ID 225 - colour correction of the foreground or edges is incorrectly clipped between 0 and 1 for floating point images. This has been fixed.

Known Bugs and Workarounds

- Multiprocessing - BUG ID 194 - There is a multiprocessing rendering bug shown up as half screen renders. Only seen on Intel PCs with dual core. As a workaround you could temporarily set the environment variable FOUNDRY_MAX_PROCESSORS to 1.

Keylight 1.1v1

This is a new release to support After Effects 7.0.

Requirements

Adobe After Effects 7.0 Professional on Mac OS X or PC.

Release Date

June 2005

New Features

- Support for keying floating point images (32bpc).

Improvements

- The Alpha and Despill Bias controls are now colour widgets rather than sliders. This change extends the range of shots that can be keyed.
- The default edge method on the Source Crops has been changed to Colour.

Fixed Bugs

There are no fixed bugs.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.0v4

This is a maintenance release to fix a bug.

Requirements

Adobe After Effects 6.0 or 6.5 Professional on Mac OS X or PC.

Release Date

8 September 2003

New Features

There are no new features.

Improvements

- Installer for Mac OS X changed to standard pkg format. Plug-ins remain the same.

Fixed Bugs

- BUG 354. On PC only, on selecting Edit>Purge>All After Effects will crash. This has been fixed in this release.

Known Bugs and Workarounds

- BUG ID 99 - Keylight would sometimes render only half a frame on multi-processor windows machines only on After Effects 6.5 only. This did not affect After Effects 6.0 (or After Effects 7.0)

Keylight 1.0v3

This version is the full release and is supplied on the Adobe After Effects 6.0 Professional CD.

Requirements

Adobe After Effects 6.0 Professional on Mac OS X or PC.

New Features

There are no new features.

Improvements

There are no new features.

Fixed Bugs

- During a Keylight render, if a redraw of the After Effects user interface occurs, possibly due to a screen saver or window stowing, this may cause Keylight to crash. This bug has been fixed.
- BUG 346. If Keylight was copied and pasted between compositions, After Effects will crash. This has been fixed.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.0v2

Requirements

Adobe After Effects 6.0 Professional on Mac OS X or PC.

New Features

There are no new features.

Improvements

- A new parameter, "Normal", has been added to he Source Alpha menu to allow embedded alpha to key the layer as normal. This allows multi-shape masks to be used as garbage mattes.

Fixed Bugs

There are no fixed bugs.

Known Bugs and Workarounds

There are no known bugs.

Keylight 1.0v1

Requirements

Adobe After Effects 6.0 Professional on Mac OS X or PC.

New Features

This section will describe new features in later versions.

Improvements

This section will describe improvements to existing features in later versions.

Fixed Bugs

This section will describe fixed bugs in later versions.

Known Bugs and Workarounds

There are no known bugs.

Appendix B: Third Party Licences

This appendix lists third party libraries used in Keylight, along with their licences.

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