



complianceSuiteFC



for Final Cut Studio and Final Cut Express

eyeheight



www.eyeheight.com

telephone: +44(0)20 8255 2015

Contents

| | |
|---|----|
| Manual Versions | 3 |
| Introduction | 4 |
| complianceSuiteFC components..... | 4 |
| safeEyesFC..... | 4 |
| safeEyesFC measurement tool..... | 4 |
| legalEyesFC..... | 4 |
| Installation using USB dongle | 4 |
| Installation using a software license..... | 5 |
| Using safeEyesFC in Apple Final Cut | 5 |
| Using safeEyesFC in Apple Motion..... | 7 |
| Using safeEyesFC measurement tool in Apple Final Cut | 9 |
| Text height measurement..... | 10 |
| User box measurement..... | 12 |
| Tips for enhancing measurement accuracy | 13 |
| Using safeEyesFC measurement tool in Apple Motion..... | 13 |
| Text height measurement..... | 13 |
| User box measurement..... | 14 |
| Tips for enhancing measurement accuracy | 14 |
| Using legalEyesFC in Apple Final Cut | 15 |
| Using legalEyesFC in Apple Final Cut (Custom)..... | 17 |
| Using legalEyesFC in Apple Motion..... | 18 |
| | |
| Figure 1: The location of safeEyesFC and safeEyes measurement tool in Apple Final Cut | 6 |
| Figure 2 - safeEyesFC controls in Apple Final Cut | 6 |
| Figure 3 - Marker Controls | 7 |
| Figure 4 - Disabling the safeEyesFC video track..... | 7 |
| Figure 5 - The location of safeEyesFC and safeEyesFC measurement tool in Apple Motion..... | 8 |
| Figure 6 - Correct alignment of safeEyesRF in Apple Motion | 9 |
| Figure 7 - Disabling safeEyesFC in Apple Motion..... | 9 |
| Figure 8 - 'Top left' point selection button | 10 |
| Figure 9 - Indication of the top of the text height measurement area..... | 11 |
| Figure 10 - Text height measurement results..... | 11 |
| Figure 11 - User-box top and left indication | 12 |
| Figure 12 - User-box results | 12 |
| Figure 13 - User-box results in Apple Motion | 15 |

Figure 14 - Location of legalEyesFC in Apple Final Cut 16

Figure 15 - legalEyesFC default controls 17

Figure 16 - legalEyesFC controls in 'Custom' mode 18

Table 1- "Safest" legalisation options 17

Manual Versions

| Version | Date |
|--|-------------|
| 1.0 - First Version with Dinkey license dongle | 03/4/2013 |
| 1.1 - Includes software license | 15/09/2014 |

Introduction

This manual will guide you through the use of the Eyeheight complianceSuiteFC plug-in for Apple Final Cut Studio and Final Cut Express and provide you with tips on how to get the best out of your use of complianceSuiteFC.

complianceSuiteFC components

As the name suggests complianceSuiteFC is a suite of plug-ins each designed to assist you in achieving technical compliance for your output. At present complianceSuiteFC contains the following plug-ins ..

safeEyesFC

A safe area / marker generator plug-in with an extensive library of predefined safe areas and highly configurable display options for enhanced clarity. safeEyesFC works with Apple Final Cut Pro, Apple Final Cut Express and Apple Motion.

safeEyesFC measurement tool

A text height and area measurement tool which makes it quick and easy to check the regulatory compliance of text content in commercials and is also a useful general purpose measurement tool.

legalEyesFC

A professional broadcast video legaliser plug-in based on over a decade of development and innovation in broadcast legalisation and offering a powerful and highly configurable video legalisation solution. legalEyesFC works with Apple Final Cut Pro and Apple Final Cut Express.

N.B. The legalEyesFC filter will show up as an available filter in Apple Motion but it is not possible to apply the filter This is by design. Accurate legalisation requires all content to be in a single layer and to be fully opaque so Apple Motion is not a suitable host for legalEyesFC. If you wish to legalise Apple Motion content first place the content onto an Apple Final Cut timeline and then follow the guidance for legalisation in Apple Final Cut below.

Installation using USB dongle

!!IMPORTANT!!

The software comes installed on a USB stick which not only contains the software and some useful utilities but is also the security dongle and must be inserted in a USB port on the machine you wish to run the software on. COPYING ONTO ANOTHER USB STICK WILL NOT TRANSFER THE LICENSE.

Always use the USB stick supplied.

NOTE: If you have already evaluated complianceSuiteFC using the web demo available on our website (www.eyeheight.com) then you will need to replace the plug-in that you downloaded. Following the instructions below should do this.

The Flash Drive directory on the USB stick contains:

1. Eyeheight Compliance Suite.fxplug, which is the complianceSuiteFC plugin for Final Cut.
2. dpmac32.dylib which is the security library that is needed, together with the dongle, to run the software.
3. This complianceSuiteFC User Manual.

In order to install BroadcastSafeFCX you need to be logged in as the Administrator and then follow these steps:

1. Using "Finder" copy Eyeheight Compliance Suite.fxplug. into the root Library -> Plug-Ins -> fxplug. NOTE if you have used the web demo you will need to replace the one currently in this directory.
2. Using "Go" -> Go to Folder enter /usr/lib/ and press the "Go" button. This will find the /usr/lib directory. Copy dpmac32.dylib into this directory.
3. Run Final Cut and in the effects tab you should find Eyeheight complianceSuiteFC under the Video Filters (legalEyesFC) and under generators (safeEyesFC and safeEyesFC measurement tool)

Installation using a software license

Installation using a software license means that your installation will be tied to the computer with the license. Unlike the USB dongle installation you cannot move this license from computer to computer.

For this installation simply download the complianceSuiteFC plug-in demo on the eyeheight website, www.eyeheight.com and follow the instructions supplied. Running this will install the necessary software but on a limited (demo) license. To purchase the full software license please contact sales at Eyeheight Ltd. A software license can be provided by email.

Using safeEyesFC in Apple Final Cut

safeEyesFC appears in Apple Final Cut under Video Generators ---> Eyeheight complianceSuiteFC ---> safeEyesFC in the 'Effects' tab of the browser window as shown in Figure 1. safeEyesFC is useful throughout the creation of a sequence so it is a good idea to add it to the timeline at the beginning. The safeEyesFC generator creates a dynamic clip which overlays up to three markers. For additional markers simply add another safeEyesFC generator clip on another video track. To create a safe Eyes FC clip drag the generator from the 'Effects' tab in the browser pane onto the blank space in the timeline window above the current top most video track to create the clip on a new video track. The safeEyesFC clip will appear with the default duration.

N.B. The playhead will move to end of the safeEyesFC clip and as a consequence the markers will not immediately be visible in the canvas. Resize the safeEyesFC clip using the resize pointers at the beginning and end so that it covers the entire duration of your intended sequence and ensure the safeEyesFC clip is always uppermost so that the safeEyesFC markers are always visible.

To edit the marker setting, double click on the safeEyesFC clip in the timeline or ctr1-click and select open 'safeEyesFC' from the context menu to open the safeEyesFC clip in the viewer. Select the 'Controls' tab.



Figure 1: The location of safeEyesFC and safeEyes measurement tool in Apple Final Cut

safeEyesFC will automatically set the 'Target Output standard' based on the width specified for the sequence. For SO sequences the safeEyesFC will default to 4:3 rather than 16:9 markers. This can be changed by selecting the appropriate option in the 'Target Output Standard' drop down at the top of the controls as shown in Figure 2.

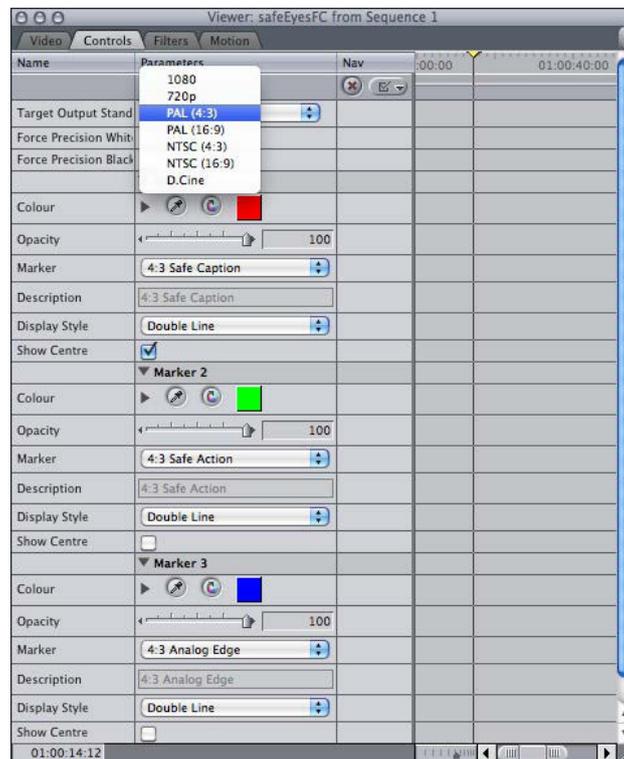


Figure 2 - safeEyesFC controls in Apple Final Cut

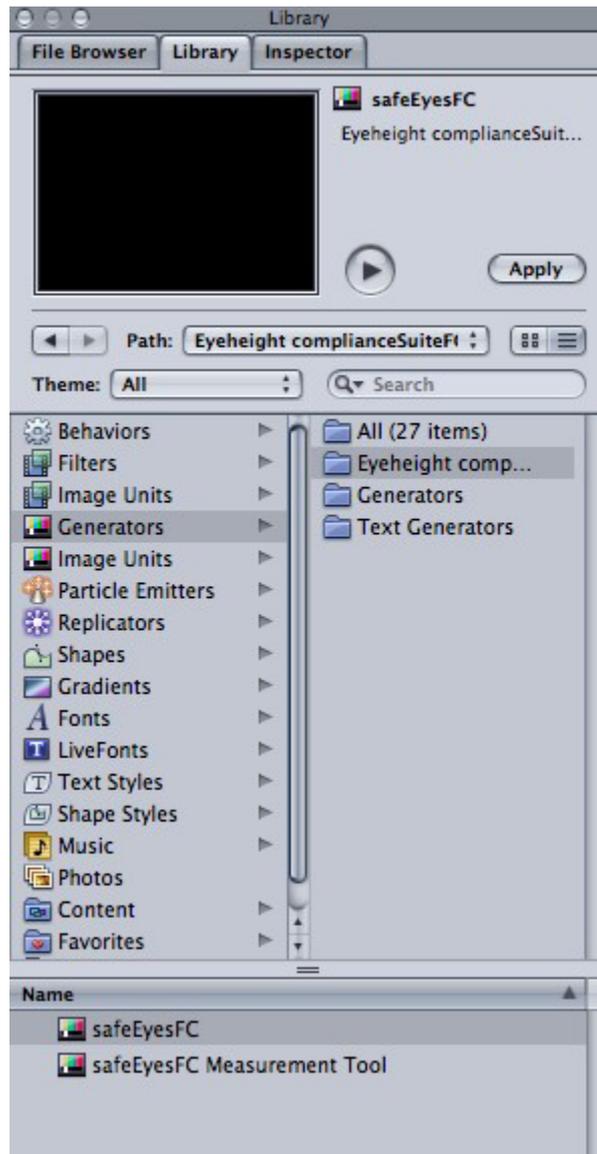


Figure 5 - The location of safeEyesFC and safeEyesFC measurement tool in Apple Motion

The safeEyesFC controls are available either via the HUD or from the 'Generator' tab of the Inspector. In either case the controls are identical to those in Apple Final Cut. safeEyesFC will automatically set the 'Target Output Standard' based on the width specified for the sequence. For SD sequences the safeEyesFC will default to 4:3 rather than 16:9 markers. This can be changed by selecting the appropriate option in the 'Target Output Standard' drop down at the top of the controls as shown in Figure 2.

Below the 'Target Output Format' selection are the 'Force Precision White' and 'Force Precision Black' tick boxes. These controls provide a quick way to force all markers to display as single pixel thickness lines and in either white or black. This functionality is useful when you need to position elements precisely. To return to the normal marker display modes uncheck both boxes.

The rest of the controls consist of three identical groups of controls, one for each of the available markers. Figure 3 shows the controls for a single marker. The 'Marker' drop-down allows you to select the desired marker from the set of markers available for the selected 'Target Output Format'. Display style allows you to select your preferred representation of the marker or turn it off. The 'Show Centre' tick-box controls the visibility of the markers centre cross.

When you have finished creating your sequence you can hide the markers by disabling the safeEyesFC layer as shown in Figure 7 so that the safeEyesFC configuration is maintained but the markers do not appear on the final output.

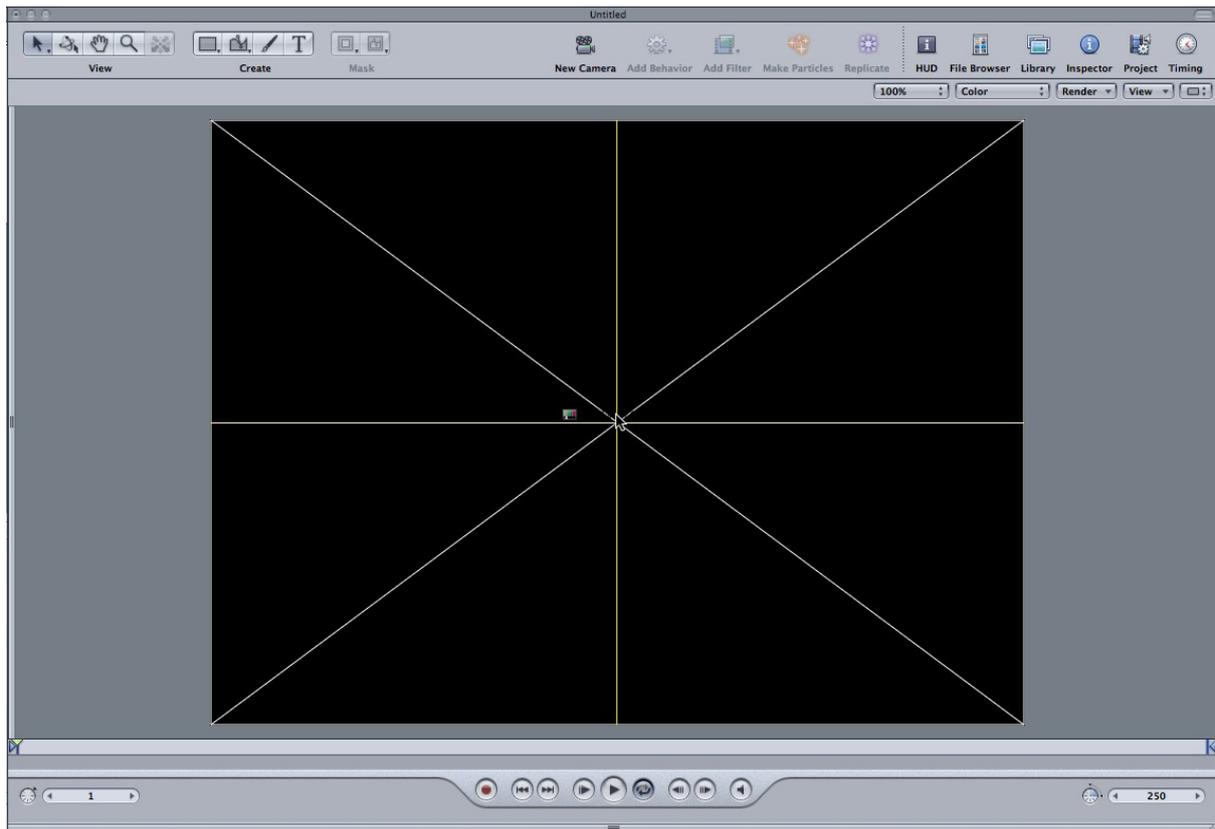


Figure 6 - Correct alignment of safeEyesRF in Apple Motion

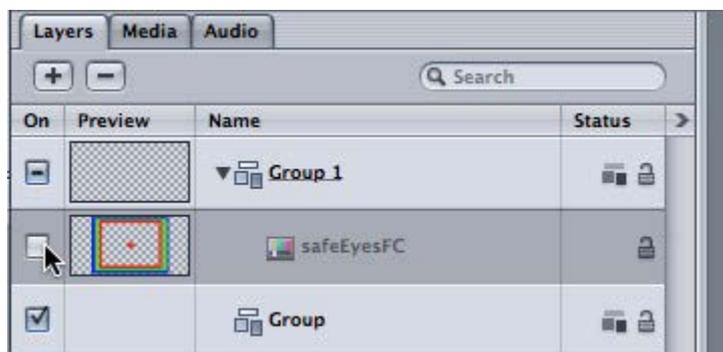


Figure 7 - Disabling safeEyesFC in Apple Motion

Using safeEyesFC measurement tool in Apple Final Cut

safeEyesFC measurement tool appears in Apple Final Cut under Video Generators ----> Eyeheight complianceSuiteFC ----> safeEyesFC measurement tool in the 'Effects' tab of the browser window as shown in Figure 1.

The safeEyesFC measurement tool generator creates a dynamic clip which overlays a text height or area measurement marker. To display more than one marker simply add another safeEyesFC measurement tool generator clip on another video track.

To create a safeEyesFC measurement tool clip drag the generator from the 'Effects' tab in the browser pane onto the blank space in the timeline window above the current top most video track to create the clip on a new video track. The safeEyesFC measurement tool clip will appear with the default duration.

N.B. The playhead will move to end of the safeEyesFC measurement tool clip when the clip is created so you will need to move the playhead back to frame of interest in order to make your measurement in the canvas window. You can resize the safeEyesFC measurement clip using the resize pointers at the beginning and end so that it only covers the period of interest. Ensure the safeEyesFC measurement tool clip is not obscured by another clip so that the marker is visible.

Text height measurement

To measure the height of text using the safeEyesFC measurement tool access the clips controls by double-clicking on the safeEyesFC measurement tool clip to open it in the viewer pane and then select the 'Controls' tab. SafeEyesFC measurement tool will automatically set the 'Target Output Standard' based on the sequence size settings. For SD sequences safeEyesFC measurement tool will default to 4:3, this can be adjusted using the 'Target Output Format' drop-down. safeEyesFC measurement tool defaults to text height measurement mode. To begin a measurement click on the point selection button labelled 'Top-Left' as shown in Figure 8 and then click on the canvas window to mark the top of the text to be measured. If you click and drag you will see a graduated marker indicating where the top of the text height measurement area will be as shown in Figure 9.

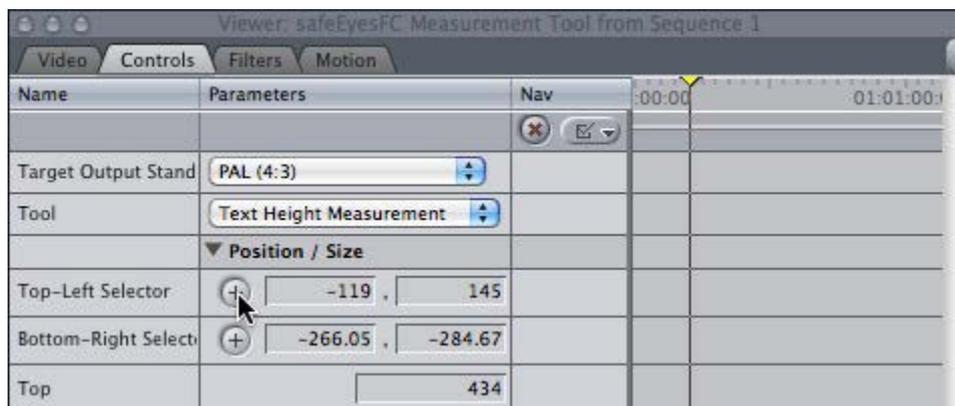


Figure 8 - 'Top left' point selection button

To complete the measurement click on the 'Bottom-Right' point selection button and click or click and drag in the canvas to define the bottom of measurement area. The measurement area will be indicated by a translucent horizontal bar and the height of the measurement area can be read from the controls tab of the viewer pane as shown in Figure 10. The colour and opacity of the bar can be adjusted in the generators controls.

You can also configure the text height tool as a height guide by setting either the top or bottom of the text height bar and then entering a target height in the height readout. The indicator bar will be set to the specified height and positioned relative the given reference point.



Figure 9 - Indication of the top of the text height measurement area

Viewer: safeEyesFC Measurement Tool from Sequence 1

Video Controls Filters Motion

| Name | Parameters | Nav | :00:00 | 01:01:00 |
|---------------------|-------------------------|-----|--------|----------|
| | | | | |
| Target Output Stand | PAL (4:3) | | | |
| Tool | Text Height Measurement | | | |
| ▼ Position / Size | | | | |
| Top-Left Selector | -48.22 , -253.04 | | | |
| Bottom-Right Select | -266.05 , -284.67 | | | |
| Top | 36 | | | |
| Bottom | 54 | | | |
| ▼ Colour | | | | |
| Colour | | | | |
| Opacity | 50 | | | |
| ▼ Results | | | | |
| Height | 19 | | | |

Figure 10 - Text height measurement results

User box measurement

To make an area measurement, select 'User-Box Measurement' from the 'Tool' drop-down. The procedure is the same as that for text height measurement. If the 'Top-Left' point is placed either below or to the right of the 'Bottom-Right' point you will see a shaded guide showing where the top and left edge of the area will be. Similarly, if the 'Bottom-Right' point is placed above or to the left of the 'Top-Left' point you will see a shaded guide showing where the bottom and right edges will be. When the 'Top-Left' point is correctly placed above and to the left of the 'Bottom-Right' point you will see an area drawn in the style selected in the 'Display Style' drop-down.



Figure 11 - User-box top and left indication

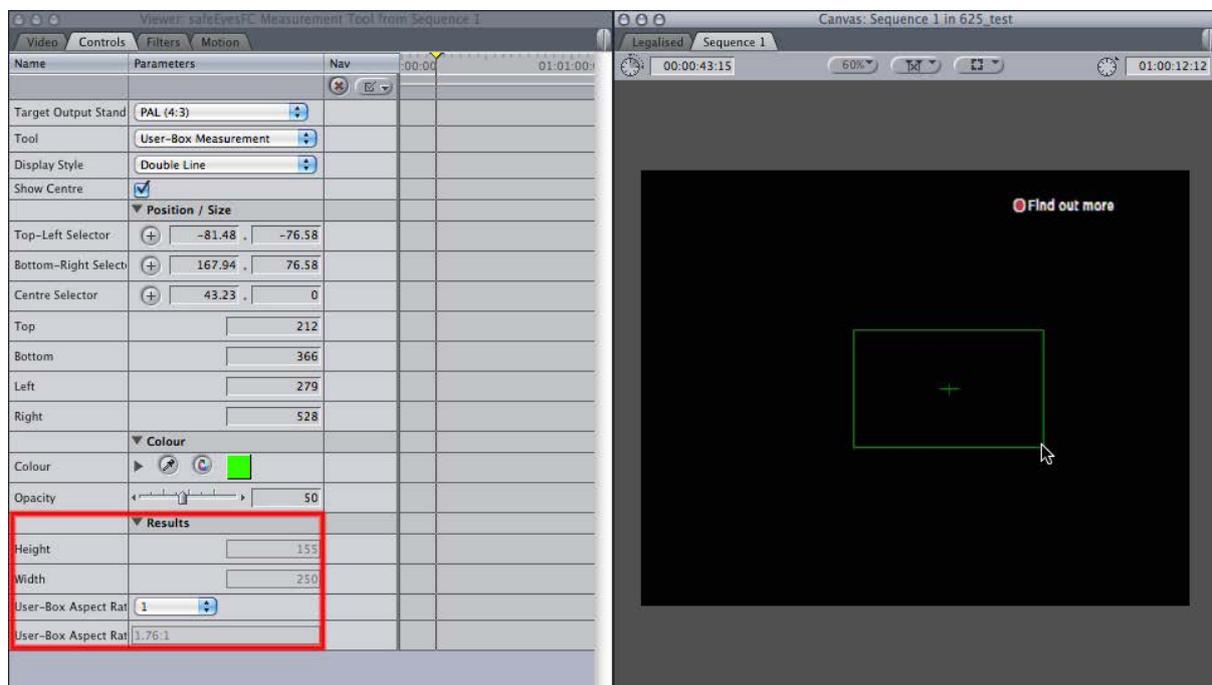


Figure 12 - User-box results

The results of the user-box measurement can be read from the bottom of the generator controls as shown in Figure 12. The lowest readout gives the user-box aspect ratio, corrected for the pixel aspect ratio of the 'Target Output Format' scaled by the factor indicated in the drop-down above. This allows the aspect ratio to be readily expressed in familiar terms such as 2.35:1, 4:3 or 16:9.

Tips for enhancing measurement accuracy

Set the canvas scaling to 100% and disable correct for aspect ratio to make sure the canvas is displaying the actual pixels.

Use the OS X Zoom functionality to enlarge the canvas pixels. You can turn on Zoom by using alt+cmd+8 and increase the zoom factor by using alt+cmd+=. For best results disable display smoothing by using alt+cmd+\

Using safeEyesFC measurement tool in Apple Motion

You will find find safeEyesFC measurement tool under Generators Eyeheight complianceSuiteFC safeEyesFC measurement tool in the Apple Motion library tab as shown in Figure 5. You can add safeEyesFC measurement tool to your Apple Motion project by dragging it from the library tab on to the layers tab of the project pane or directly onto the canvas. If you are dragging it onto the canvas ensure that it is centred correctly as indicated by the horizontal and vertical alignment indicator lines as shown in Figure 6.

The safeEyesFC measurement tool generator creates a dynamic clip which overlays a text height or area measurement marker. To display more than one marker simply add another safeEyesFC measurement tool generator clip on another layer.

To access the controls select the safeEyesFC measurement tool layer using the project pane or by cycling through the layers by clicking on the canvas and using the up and down cursor keys. If the HUD is enabled the safeEyesFC measurement tool HUD will be displayed when the correct layer is selected. If the HUD has been disabled select the 'Generator' tab in the inspector and look for the safeEyesFC measurement tool name in the top right corner of the tab.

Text height measurement

SafeEyesFC measurement tool will automatically set the 'Target Output Standard' based on the sequence size settings. For SD sequences safeEyesFC measurement tool will default to 4:3, this can be adjusted using the 'Target Output Format' drop-down in either the HUD or the 'Generator' tab of the inspector pane.

safeEyesFC measurement tool defaults to text height measurement mode. To begin a measurement drag the 'Top' slider in the HUD or 'Generator' tab of inspector to mark the top of the text to be measured you will see a graduated marker indicating where the top of the text height measurement area will be as shown in Figure 9.

To complete the measurement drag the 'Bottom' slider in either the HUD or 'Generator' tab of the inspector to define the bottom of measurement area. While the defined bottom of the text area is higher than the defined top you will see a graduated marker similar to that shown in Figure 9 but vertically reversed to show where you currently are. Once the defined bottom is below the defined top you will see a translucent bar highlighting the text measurement area. The measured height can be read from the controls tab of the viewer pane as shown in Figure 10. The colour and opacity of the bar can be adjusted in the generators controls.

Rather than dragging the 'Top' and 'Bottom' sliders directly in the 'Generator' tab of inspector, you can click and drag on the numerical values besides the sliders. Dragging to the right increases the value and moves the marker down the canvas, dragging left decreases the value and moves the marker up the canvas. Using this method generally allows you to place the markers more accurately.

You can also configure the text height tool as a height guide by setting either the top or bottom of the text height bar and then entering a target height in the height readout. The indicator bar will be set to the specified height and positioned relative the given reference point.

User box measurement

To make an area measurement select 'User-Box Measurement' from the 'Tool' drop-down in either the HUD or the 'Generator' tab of the inspector. The procedure is the same as that for text height measurement but you will now also see a 'Left' and 'Right' slider which combine with the 'Top' and 'Bottom' sliders to define the top-left and bottom-right corners of the user-box.

If the top-left point is placed either below or to the right of the bottom-right point you will see a shaded guide showing where the top and left edge of the area will be. Similarly, if the bottom-right point is placed above or to the left of the top-left point you will see a shaded guide showing where the bottom and right edges will be. When the top-left point is correctly placed above and to the left of the bottom-right point you will see an area drawn in the style selected in the 'Display Style' drop-down.

The results of the user-box measurement can be read from the bottom of the generator controls as shown in Figure 13. The lowest readout gives the user-box aspect ratio, corrected for the pixel aspect ratio of the 'Target Output Format' scaled by the factor indicated in the drop-down above. This allows the aspect ratio to be readily expressed in familiar terms such as 2.35:1, 4:3 or 16:9.

Tips for enhancing measurement accuracy

Set the canvas scaling to 100% and disable correct for aspect ratio to make sure the canvas is displaying the actual pixels.

Use the OS X Zoom functionality to enlarge the canvas pixels. You can turn on Zoom by using alt+cmd+8 and increase the zoom factor by using alt+cmd+=. For best results disable display smoothing by using alt+cmd+\

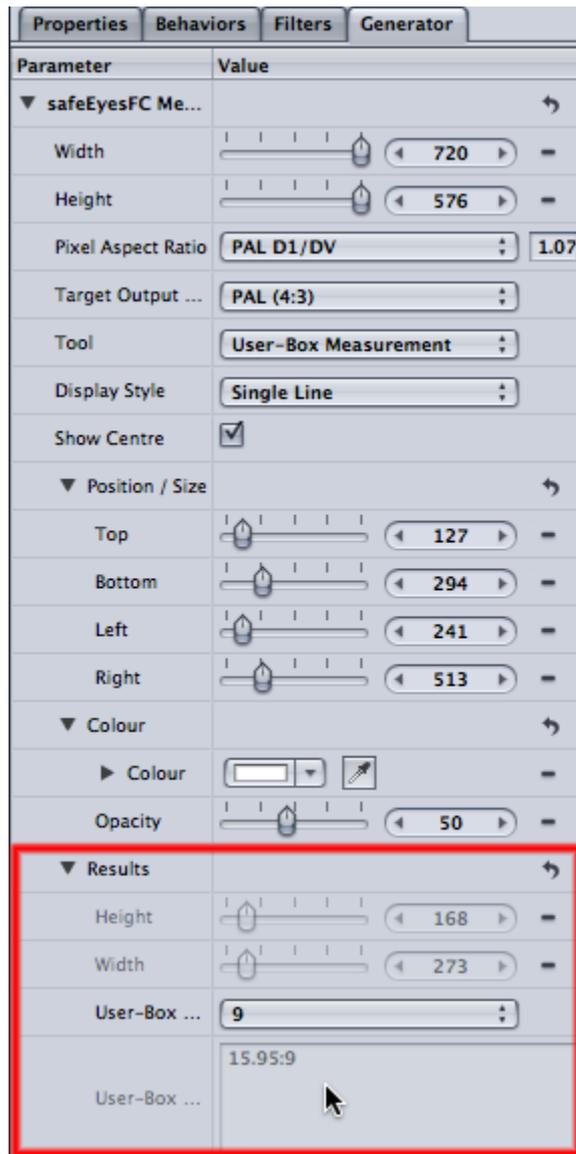


Figure 13 - User-box results in Apple Motion

Using legalEyesFC in Apple Final Cut

legalEyesFC appears in Apple Final Cut under Video Filters ---+ Eyeheight complianceSuiteFC ---+ legalEyesFC in the 'Effects' tab of the browser window as shown in Figure 14.



Figure 14 - Location of legalEyesFC in Apple Final Cut

legalEyesFC is generally applied to a sequence once it is finished. The correct way to apply legalEyesFC to a sequence is . . .

1. Create a new sequence within the project by ctrl-clicking in the project tab of the browser pane and selecting new sequence.
2. Open the new sequence in the timeline by double clicking the newly created sequence in the project tab of the browser pane.
3. Drag the sequence you want to legalise from the project tab of the browser pane onto the timeline of the newly created sequence.
4. Apply the legalEyesFC filter to the original sequence by dragging the legalEyesFC filter from the 'Effects' tab of the browser pane onto the original sequence, now in the timeline of the new sequence.

Following this process allows you to apply the legalEyesFC filter to every clip in your sequence in one go and ensures that the settings are constant across the whole sequence. It also makes it easy to create versions of a sequence with different legalEyesFC settings for different markets such as EBU103 legalisation for Europe and NTSC for the U.SA Finally this process will enable HD content within an SD sequence to be processed by legalEyesFC even if you only have an SD licence.

Once you have followed the process above you can access the controls for the legalEyesFC filter by ctrl-clicking the sequence in the timeline and selecting 'Open in Viewer' and then selecting the 'Filters' tab of the viewer pane.

N.B. Double-clicking the sequence in the time line will open the original sequence in the timeline rather than opening the clip in the viewer.

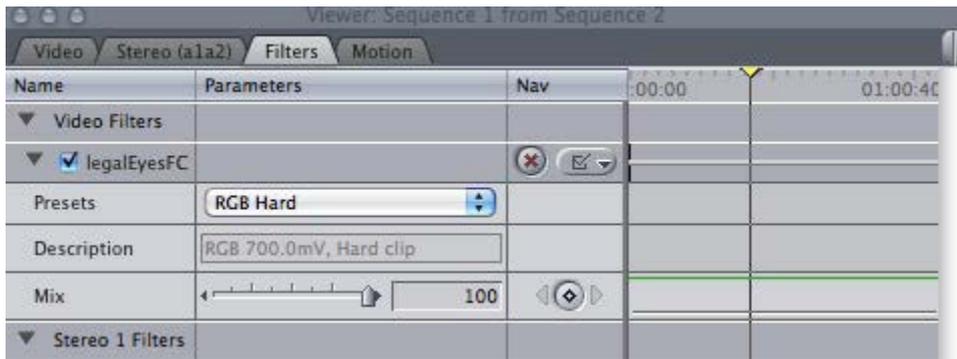


Figure 15 - legalEyesFC default controls

Figure 15 Shows the default controls for the legalEyesFC filter. Select the appropriate preset from the 'Presets' drop-down. If you are unsure which preset to select consult your QA department or use the 'safest' options given in Table 1.if available.

| Destination | Preset |
|-------------|---------------------|
| U.S.A | NTSC+RGB |
| Europe | PAL+RGB |
| Japan | NTSC, 0 Setup + RGB |

Table 1- "Safest" legalisation options

N.B. While legalEyesFC always works in full precision floating-point mode Apple Final Cut will only work in 8 bit mode when playing un-rendered content from the timeline. For this reason always make sure to render you sequence before playing out to tape from the timeline to get the best results.

Using legalEyesFC in Apple Final Cut (Custom)

If the 'Custom' option is listed as an available preset, selecting it will show you the current legalisation settings, as shown in Figure 16, and allow you to edit individual parameters. Parameter changes affect only the filter instance in question and does not effect the Preset settings. Presets can only be modified by the system administrator.

N.B. The IRE and mV composite settings are fully independent any only those identified by the 'Composite Units' drop-down will be applied. Similarly the % and mV RGB settings are fully independent and only those identified by the 'RGB Units' drop-down will be applied.

N.B. Setting up custom legalisation is for advanced users only and may have been disabled by your system administrator.

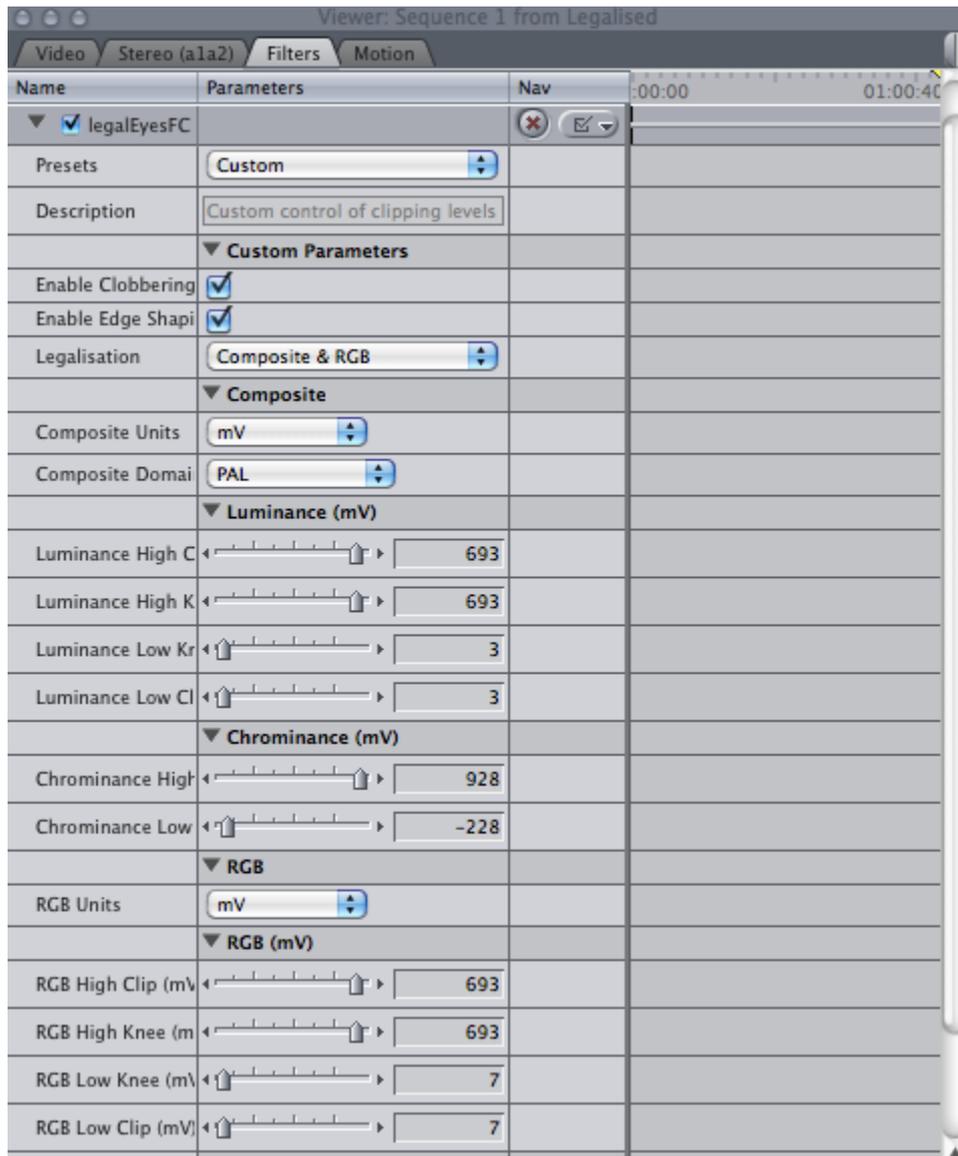


Figure 16 - legalEyesFC controls in 'Custom' mode

Using legalEyesFC in Apple Motion

While legalEyesFC will show up as a video filter in Apple Motion it is not possible to add it to the project. This is by design. Accurate legalisation requires all content to be in a single layer and to be fully opaque so Apple Motion is not a suitable host for legalEyesFC. If you wish to legalise Apple Motion content first place the content onto an Apple Final Cut timeline and then follow the guidance for legalisation in Apple Final Cut above.