

FLIP

FilmLight Image Processor

FilmLight



On-set preview of live camera output with real-time application of looks from BLG files, ASC CDLs or LUTs.

Live preview of your final look

FLIP is a real-time image processor which applies lookup tables, grades and filter effects to the live output of your camera while you are shooting on set. Inserted directly in the single or dual-link HD-SDI feed between camera and monitor, it utilises GPU accelerated hardware combined with Baselight grading and Truelight Colour Space technology to apply looks to your raw footage so you can see exactly what the final grade is going to look like in post.

FLIP removes the need to process raw digital files before you can review your shots and gives you complete freedom to interactively experiment with and compare looks, adjust filters, and push things to the edge, trading off what you can do on set with what is possible in post.

The real-time image processing and display emulation system generates an accurate preview of the final look but leaves the captured raw images untouched allowing decisions to be reversed in post and avoiding the need to lock anything down until the very end.

Your vision at every stage

Carrying forward all your metadata from set, including the creative decisions you make using FLIP, means the same vision can be seen at all stages in the post-production pipeline. Look data and transform LUTs can be imported directly into Daylight, Baselight and Baselight Editions so you can work on your original raw camera footage with the same looks in VFX, editorial and the final grade.

The ability to export standard ASC CDL lists and 3rd party formatted 3D LUTs enable you to integrate FLIP into any post-production workflow.

Truelight Colour Spaces for high fidelity, HDR image processing

All image processing in FLIP is performed at 32-bit floating point for the highest possible colour fidelity. This, integrated with the latest advances in Truelight Colour Space technology, makes FLIP ideally placed to deal with the latest High Dynamic Range workflows.

Truelight Colour Spaces enable support for new camera and display colour spaces to be added to FLIP dynamically via simple colour space definition files, extending the abilities of your FLIP as new formats are released.

Baselight Linked Grade file (BLG)

FLIP is designed around the FilmLight BLG file format. The BLG (Baselight Linked Grade) is a multi-track OpenEXR file that you can use to create, transfer and review looks. It is a small and portable data file that enables looks to be exchanged with all Baselight systems including Daylight and Baselight Editions.

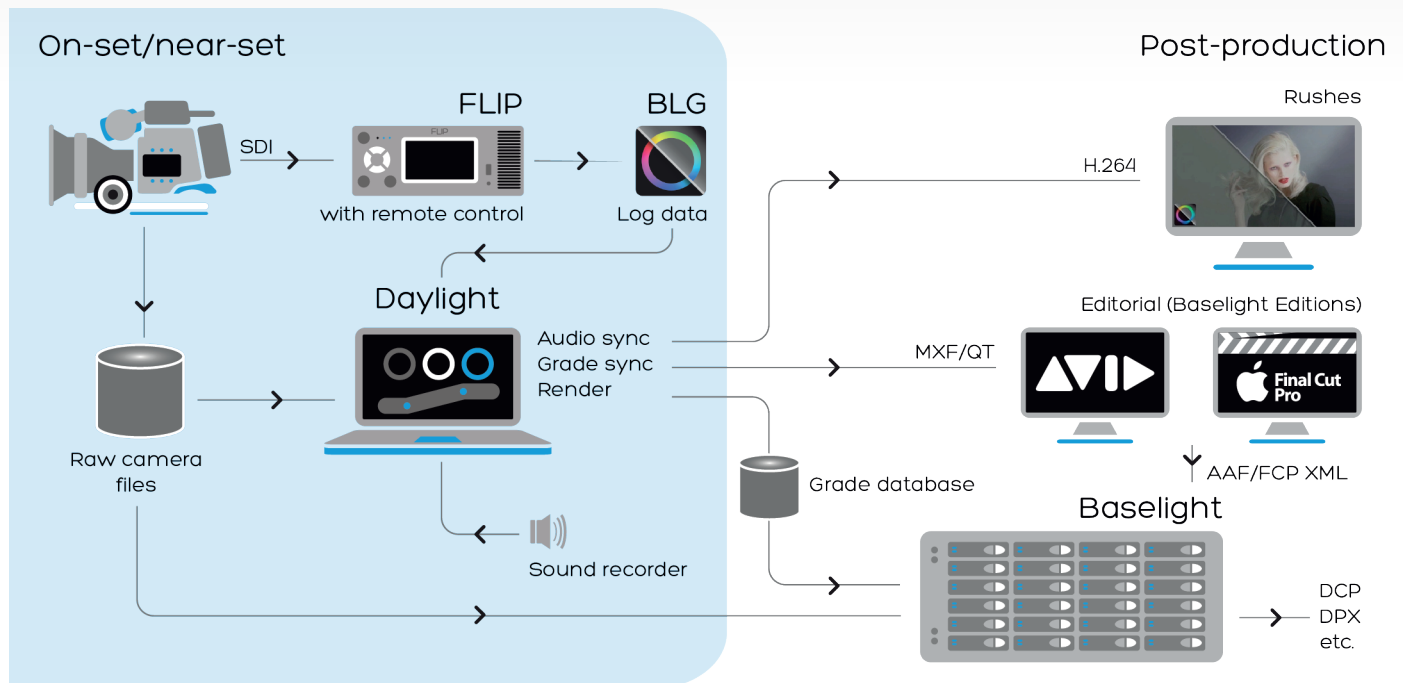
When we use the term 'look', we're not just talking about a LUT or a restricted grade—the look within the BLG is the full creative intent. It contains all grade information including Truelight cubes, conform metadata and keyframes.

You can export your creative decisions from FLIP as BLG files and import them directly into Baselight, Baselight Editions or Daylight, or vice versa. You can also use them as a look review format without any FilmLight hardware or software.

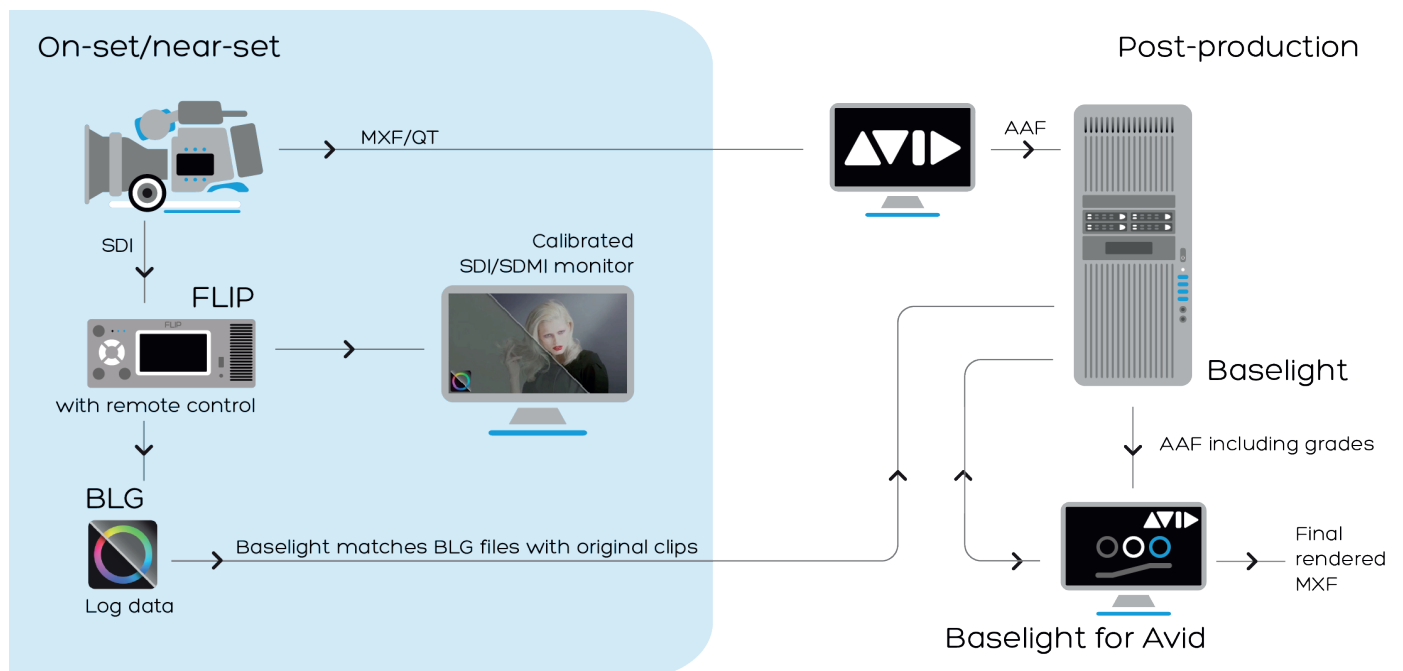
The BLG file format can enable powerful and fast dailies workflows, as well as render-free workflows when coupled with Baselight Editions for editorial and VFX systems.

To allow interoperation with LUT-based workflows, FLIP also has the ability to export standard ASC CDL lists and third party formatted 3D LUTs.

TV/commercial workflow



NLE workflow



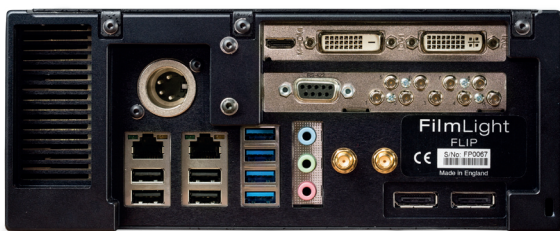
Adaptive technology for on-set demands

The FLIP interface is clear and uncluttered with a purpose-built navigation button—and you can also use the remote control app on an iPad or MacBook to make the most of FLIP's sophisticated toolset.

Not only that, but if you're using an ARRI Alexa camera and FLIP is connected to a wireless network, it can communicate information about looks straight to the camera over its wi-fi interface. No cables, no fuss.



FLIP - side view



FLIP - rear view

Start the grade on set

Looks developed in the grading theatre during test-shoots can be imported into FLIP, previewed with live footage and then further refined on-set using simple, yet powerful, real-time grading tools. The looks which you create in FLIP are then exported back to the grading theatre and seamlessly combined with the original raw camera footage to reproduce the same looks for the final grade.

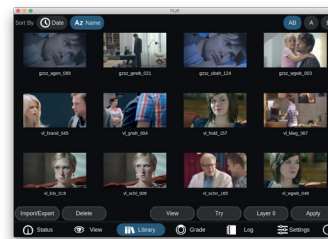
Take control-remotely

Take full control of FLIP via iPad or Mac OSX.

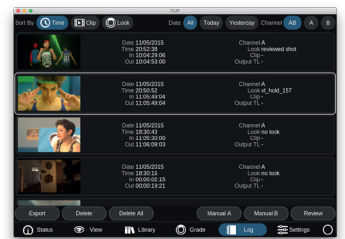
FLIP streams video to the remote device so you can preview images and adjust looks just as you would if you were sitting right in front of the FLIP hardware box.

You can even connect multiple FLIP systems to the one remote interface, all via wifi or ethernet.

FLIP Remote is now available on the iTunes Store.



FLIP Remote Library



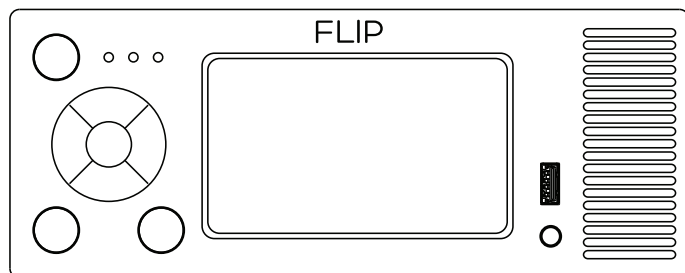
FLIP Remote Log

Key features

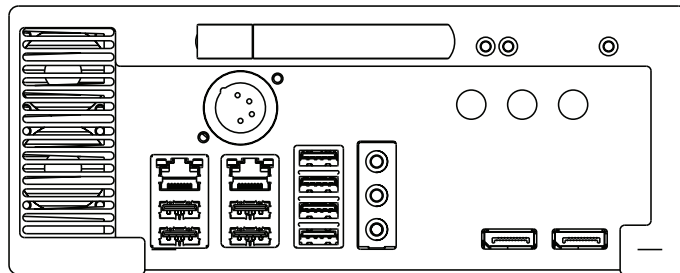
- » Compact, portable 2U half-width unit with low-noise operation for on-set use.
- » High resolution screen and purpose-built menu navigation button.
- » Remote control over wifi/ethernet from iPad/Mac OSX.
- » Real-time processing of HD camera monitoring output with live preview of preset looks.
- » Live filters including blur, soften, mist and effects processing.
- » Full grading controls allow live adjustment of looks while capturing or reviewing footage.
- » Built-in Truelight Colour Spaces.
- » Import looks and LUTs.
- » Support for secondary grades with matte functions and ability to modify these elements on-set.
- » Instant recall of unlimited predefined looks via thumbnail galleries.
- » Time-based recording of look decisions.
- » Export looks as embedded metadata or separate files in ASC CDL or full BLG format.
- » Built-in waveform/vectorscopes and histogram.
- » Output video processing including legaliser.
- » LTC and VITC timecode reader with internal/external timecode.
- » Ethernet connectivity for direct transfer of looks and other metadata via network.
- » Wireless interface allows direct communication of looks to ARRI Alexa.
- » Support for Tangent Element 8 Wave panels.
- » Support for external DVI/HDMI monitors for extended UI.
- » Multi-camera inputs with independent looks per feed.
- » Part of a fully integrated end-to-end workflow with Daylight, Baselight grading systems and Baselight Editions software.

Specifications

Dimensions (WxHxD)	220x88.5mmx243mm (2RU)
Weight	~2.5kg (~5.5 pounds)
Power consumption	12V DC (via included 110-240V AC adapter) Max 10A, 120W



FLIP - front



FLIP - rear

SDI Interfaces

Input : 2 x 3G-SDI inputs
Outputs : 2 x 3G-SDI outputs
Supports single & dual camera operation.

Supported input & output video modes

Video Formats:

- » 4:2:2 YCbCr 10-bit
- » 4:4:4 RGB 10-bit
- » 4:4:4 RGB 12-bit ¹

Frame Rates:

- » 1920 x 1080 p/psf: 23.976, 24.0, 25.0, 29.97, 30.0, 47.95, 48.0, 50, 59.97, 60.0 fps ²
- » 1920 x 1080 i: 23.976, 24.0, 25.0, 29.97, 30.0 fps
- » 2048 x 1080 p/psf: 23.976, 24.0, 25.0, 29.97, 30.0, 47.95, 48.0, 50, 59.97, 60.0 fps ²

Monitor interfaces

Two independent DisplayPort connectors.

Compatible with DVI and HDMI monitors via appropriate passive cables/adaptors.

These outputs can be used for:

- » Low-latency image preview
- » Analysis tools: RGB parade, YCbCr parade, Luma parade, Histogram, Vectorscope

Supported input/camera colour spaces

- » ACES cc
- » ACES proxy
- » ARRI LogC Film Gamut
- » ARRI LogC Wide Gamut
- » Canon Canon-Log (C500)
- » Panasonic V-Log / V-Gamut
- » RED
- » Sony S-Log, S-Log2, S-Log3

Supported display colour spaces

- » Rec.1886 HD
- » Rec.2020 UltraHD
- » DCI/ACES P3
- » Dolby PQ
- » sRGB
- » Adobe RGB

Network interfaces

- » 2x 1GbE Ethernet interfaces
- » 802.11b/g/n/ac Wifi

Storage interfaces

- » 2x USB 3.0 interfaces (on rear)
- » 4x USB 2.0 interfaces (on rear)
- » 1x USB 2.0 interface (on front panel)

1. 4:4:4 12-bit mode only supported for frame rates up to 30fps

2. 47.95, 48.0, 50.0, 59.97, 60.0 fps modes only supported for 4:2:2 YCbCr video formats

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