

LUTher

Color Space Converter with 3D LUT Designer Software



Grass Valley™ products offer production professionals the most comprehensive multi-format and resolution-independent solutions for film and feature-film acquisition, restoration, production and post-production. For post house customers looking to maintain excellent quality and precise control over the entire color-grading process, Grass Valley has developed LUTher™, a highly precise real-time 3D color space converter.

The rapid adoption of digital film applications (DFAs) in the post-production industry has revealed problems relating to data in different color spaces. The most common workflow in today's post-production process involves the transfer of film-based material into the digital domain, performing the color-grading process and—after sizing, special effects and other processes have been completed—recording the final images back to film.

As the displays used for grading (such as CRTs or digital projectors) have different primary color characteristics compared to print film stocks, an uncorrected representation of the digital data on a certain display during the color-correction process can lead to a completely different color impression, when compared to the colors and the look that printed film provides.

Due to the random-access capabilities of the film printing and development process, in conjunction with the different sizes and shapes of the color space of film, utilizing a combination of a simple 1D look-up table (LUT) and matrix is not adequate to correctly display the color in large regions of the color space. Using this method, you still have to extrapolate the colors of the final print film from what you see on the grading display.

The new Grass Valley LUTher color space converter is a calibration tool targeted at digital intermediate production, the process whereby multiple post-production professionals can work on a single digital copy of film to speed up the completion process.

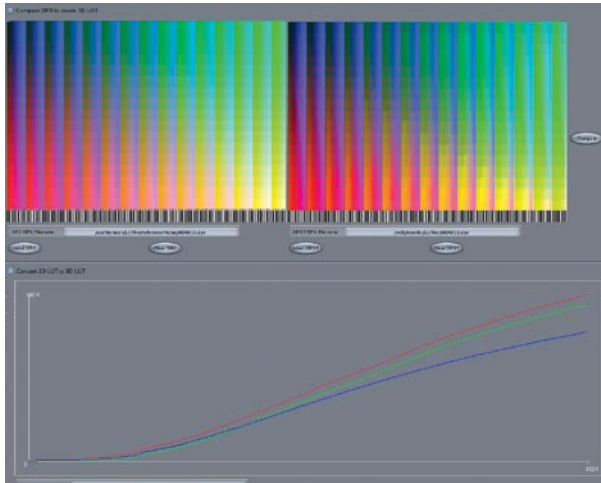
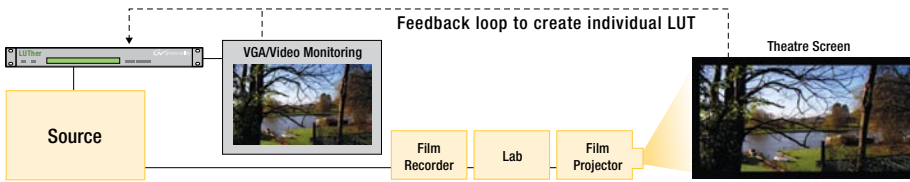
The Grass Valley LUTher color space converter is a high-resolution, three-dimensional look-up table (3D LUT) enables calibrated pre-visualization of a film print on a high-definition (HD) display or digital projection system. This capability is critical in today's digital intermediate production process, as it is increasingly important to adapt the color of the HD color-grading monitor to the final print material in order to save time and money.

key features

- Color space converter
- **NEW!** Easy-to-use, Linux-based 3D LUT designer software
- Dual link SD/HD interface (SMPTE 259M/ SMPTE 292M)
- Bypass mode for easy before/after comparison
- Simple five-button control with single-line display
- Up to 129x129x129 color cube resolution
- USB interface for 3D LUT upload
- Open LUT file format for individual LUT generation
- Unlimited internal space for storing 3D LUTs
- LAN interface
- Full integration into facility infrastructure

LUTher in the Grading Room

Ensure your film production workflow is calibrated with precise, adjustable monitor look-up tables (LUTs) that match popular theater film stocks.



The LUTher system features new 3D LUT designer software that lets you easily create 3D LUTs from 1D LUTs—or by comparing a reference image with an image that has gone through the complete processing chain. It also lets you combine different 3D LUTs into one to adapt processing steps to different display devices. And you can completely control a LUTher box remotely using the new software.

This is the only color space converter available on the market to offer an internal color cube resolution of up to 129x129x129 cubes—providing unrivalled accuracy in image representation. In addition, the Grass Valley LUTher converter offers colorists an easy-to-use control interface and the ability to upload user-defined 3D LUTs via a secure USB interface into the system.

With the new Grass Valley LUTher color space converter, post-production houses can now quickly and efficiently add the color reproduction characteristics and electronic settings of their individual production environments into the color-grading process. The color space converter also allows color gamut transformation for standard- and high-definition (SD and HD) dual-link signals via a 3D LUT in real time.

World Class Service

Grass Valley products from Thomson are built to exact standards and backed with a comprehensive hardware and software warranty that includes:

- Technical phone support during regular business hours in your area
- Online database of frequently asked questions (FAQ)
- Advance exchange of product modules

We also offer enhanced services such as:

- Professional Consulting Service (Network Design & Installation)
- Expert Onsite Support (Commissioning & Preventative Services)
- Service & Parts Support Agreements
- Technology & Continuing Education Programs
- Product Operation & Maintenance Training Programs

For more information, please visit www.thomsongrassvalley.com/support.

About Grass Valley

If you watch TV or go to the movies, you've seen Grass Valley products at work. That's because we offer the most comprehensive, multi-format solutions for acquisition, production, storage, and playback—and a strong foundation for centralized, proactive status and activity monitoring. With Emmy® award-winning products and world-class technical and service expertise, we're the experts in professional video and film technologies—especially as broadcast, television, and film production go digital. And we've got the Emmy award-winning technologies and the top-flight customers to prove it.

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