

BETTER LIGHT RELEASES NEW COLORSAGE™ SOFTWARE FEATURING DIRECT SPECTRAL COLOR REPRODUCTION

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San Carlos, California – Large format digital scanning back maker Better Light, Inc., announced the release of a new software product named ColorSage™ that provides unprecedented color accuracy for fine-art and other critical image capture applications. ColorSage replaces the conventional RGB camera profile with a completely spectrally characterized workflow that includes spectrophotometer measurements from the subject itself, as well as spectral information about the lighting and digital back. ColorSage also compensates for uneven subject illumination, providing a 48-bit RGB output file that has been corrected for uniformity and color balance, with an attached RGB profile that provides a single, highly accurate color correction for the entire input capture system, including the unique color characteristics of each subject. ColorSage is powered by HP Artist software, the result of several years of research at Hewlett Packard into factors affecting color reproduction in a modern digital workflow.

“Better Light’s high-resolution digital scanning backs provide pure RGB pixel data with the highest image quality in the industry, but this doesn’t mean that they always see colors the way that we do, or the way that a specific workflow might expect,” said Better Light president Mike Collette. “ICC camera profiling has certainly been helpful in improving the overall color accuracy of fine-art images captured with our digital backs, but many of our users doing demanding color reproduction still encounter problems with certain colors and certain media that can be quite time-consuming to correct manually. This happens because ICC profiling is an indirect method of characterizing a capture system that analyzes the digital image values of a known color reference chart (e.g., the X-Rite ColorChecker) to determine an RGB correction profile for the camera and lighting. This same profile is then assigned to all subsequent images captured by the system, which presumes that all subjects have characteristics similar to the reference chart, and are recorded with the same color distortions as the reference chart. While this approach does reduce some color errors, it cannot account for color failures caused by specific combinations of subject, camera, and lighting spectral characteristics.”

Mike continued, “As Better Light learned about the shortcomings of camera profiling, we began looking for a better approach to maintaining accurate color for these demanding applications. From past collaboration, we knew that Hewlett Packard had been working on a fully spectral approach to managing color for fine-art capture, so we were delighted when HP asked us to partner with them to provide this software for our users. HP Artist is the color management engine powering Better Light’s new ColorSage software. This software uses spectral response data for our scanning backs, spectral

output data for specific light sources, and spectral measurements taken from each subject to create a unique RGB color correction profile that is assigned to each image. This software also compensates for uneven subject illumination by analyzing an image of a white card captured under the same lighting conditions, and even uses spectral measurements taken from the white card to color balance the system.”

While ColorSage was developed for fine art reproduction, this software can also be used for capturing highly accurate RGB color images of museum pieces for archival purposes. Because each RGB image produced by ColorSage includes a correction profile based on the spectral characteristics of the camera, lighting, and the subject itself, this approach might be viewed as providing the precision of multi-spectral image capture with the simplicity of a single RGB scan plus a few dozen spectrophotometer measurements. This small spectral data file should be retained along with the original raw image data to provide additional information and traceability, and serve as a backup. The corrected and profiled output file from ColorSage can be examined in a profile-aware application like Adobe Photoshop, where the image can also be converted to a standard color space and/or resized as needed for a specific purpose.

HP Artist software is licensed for use with the new HP Z3200 Designjet printers, and a Z3200 printer must be connected to the computer running the software, either directly or through a network. HP Z3200 printers feature next-generation color technology with 12 inks and a built-in spectrophotometer for fully automatic media calibration and profiling. By combining a spectrally-corrected capture system with a spectrally-corrected output system, users can achieve maximum color fidelity in every reproduction with minimum difficulty. Whether the Z3200 is used for occasional hardcopy proofing, or for full-on art reproduction, using a completely spectrally characterized workflow can provide superior color images for every purpose.

Better Light is the world’s acknowledged leader in large format digital image capture, offering a series of high-resolution scanning backs designed to work with almost any standard 4x5 inch camera for almost any still photographic application. Fourteen years after their introduction, Better Light scanning backs remain unsurpassed for providing the highest image quality of any capture method. Better Light scanning backs have established themselves as the preferred solution for capturing fine art originals for archiving or reproduction because of their superior image quality and lack of color interpolation. These same characteristics have made Better Light scanning backs the choice of professionals photographing everything from microscopic structures to the Himalayan Mountains.