

Cyclopital3D News

ISSUE 03 November 2011



Photo by David Burder

Thank you, Thank you, Thank you!

At this time of thanksgiving, we want all of you, our customers, to know how much we sincerely appreciate you. Many of you have become close friends over the past couple of years we have been working this business and for that we are very thankful. We recognize how blessed we are with all of the support we receive from our friends, family and customers. We wish for you all a grand holiday season filled with lots of laughter and love. We look forward to a bright and exciting new year of growth in our friendships and in our business. Thank you for all of the love and support you have given us!

Tanya and Ken

We Offer Great Holiday Gifts for 3D Enthusiasts!

LED Lighted Print Viewer



Fuji Macro Adapter



Fuji Auxiliary Lens Adapter



this issue

Holiday Gift Ideas P.1

Close-up lens excerpt P.2

NEW! Sony Adapters P.3

Ken's latest & misc. news P.4

**New Adapters for Sony and JVC
Camcorders available now!**

Go to www.cyclopital3d.com for more details!

The following is an excerpt from a paper that Ken is writing regarding the benefits that can be derived from attaching a close up lens to a fixed stereo base camera or camcorder. The full text will be available soon on our website.



Photo by Ken Burgess

There are generally four issues encountered when capturing near scenes with any stereo camera, they are:

1. Close focus: Some cameras cannot focus at near distances; the classical (2D) use of a close up lens is to enable close focusing. A single close up lens does this for both lenses when used with narrow base 3D cameras.

2. Image overlap: As the lenses get closer to a subject, the common area of the scene imaged by both lenses is reduced. A single close up lens large enough to be used over both taking lenses solves this problem. The prismatic character of the close up lens used symmetrically "off axis" by each taking lens shifts the image center to the right for the left image and to the left for the right image, thereby increasing the common area of the scene imaged by both lenses. Higher "power" (shorter focal length) close-up lenses do this to a greater degree than lower power lenses, hence, the ability to improve overlap tracks with the ability to focus closer. Note that by definition there is 100% overlap of the right and left images at the Plane Of Convergence.

3. Convergence: In order to keep the subject "behind" the

stereo window as the lenses get closer to a subject, the Stereo Window, or Plane Of Convergence must also get closer to the lenses. The distance from the camera to the Stereo Window is set by the parallax (or convergence) control on the stereo camera, either manually or automatically.

Often parallax control has a limited range of adjustment and will not allow the Stereo Window to be moved close enough for close subjects. A (single) close up lens solves this problem in a similar manner to how it solves the image overlap issue. The prismatic character of the lens shifts the center of the right image to the left, and the left to the right, moving the Plane Of Convergence closer to the camera.

4. Stereo-Base or Interaxial: As the stereo camera is moved closer to a subject, if the interaxial is left unchanged, the angle each lens makes with the subject increases. The difference between this angle for the nearest object in the scene and for the furthest object in the scene determines the "total Deviation." The total deviation should be kept to less than about 6 degrees (some say 3 degrees) for comfortable

viewing.

While the close up lens does nothing to reduce the total deviation, the interaxial of the JVC and Sony cameras (at about 30mm) are considerably smaller than "normal" (normal is generally considered to be the average eye spacing of about 65mm), making them "better" for close-up work than if they had a more "normal" stereo base. The total deviation may also be minimized by backing up and zooming in which reduces the angle each lens makes with the subject for a given magnification. Lastly, reducing the distance to the furthest object in the scene (total actual depth of the scene), or making sure the background has no "detail" that can be "fused" (plain colors or highly blurred) can help to reduce or eliminate the discomfort of excessive deviation.

Conclusions: The use of a single close up lens with a narrow interaxial stereo camera improves the close range of subjects that can be captured by solving issues 1 through 3 discussed above. Issue 4 can be handled by backing up and zooming in, and taking care in the composition of the scene.



Photo by Tanya Alsip

New! Adapter Accessories now available for your Sony 3D Camcorder!

Cyclopital3D has expanded the capabilities of two new Sony 3D camcorders by launching two new products that work with both of them: a Filter/Close-up Adapter (FCA) and a Stereo Base Extender (SBE).

The Cyclopital3D Filter/Close-up Adapter (FCA) is a universal adapter that enables the use of close-up lenses, neutral density filters, gradient filters, polarizers, a matte-box, lens hoods or other specialty equipment with the Sony camcorders.

Most of the optional attachments will function the same way in a 3D environment as they do in 2D cinematography, with the exception of close-up lenses, which are fundamentally different. In 3D cinematography, the close-up lens allows the camera to achieve convergence on the subject closer than what is possible without the additional close-up lens.

A close-up lens also increases the common image seen by both lenses (see write-up on the previous page).

The Cyclopital3D Sony Stereo Base Extender (SBE) is perfect for maintaining accurate depth portrayal when you zoom in on subjects that are more distant from the camera, such as wildlife, bands, theatrical performances, weddings, candid etc.

The Sony SBE effectively increases the lens spacing from 30mm to 140mm allowing you to record subjects that are four or five times further away, while enhancing the 3D effect with increased depth.

This SBE is only needed for subjects farther than about 4m from camera. It is important to remember that for "longshots" further than 4m from the camera your subject should generally be the closest object in the scene.

These new adapters can be ordered directly from the Cyclopital3D website. The FCA is \$199.95 and the SBE is \$399.95.

The effect these adapters have on video captured by the Sony camcorders is surprising. To see sample images, please go to www.cyclopital3d.com



***Magnify your subject! Magnify your Potential!
Magnify the "Z" Dimension!***

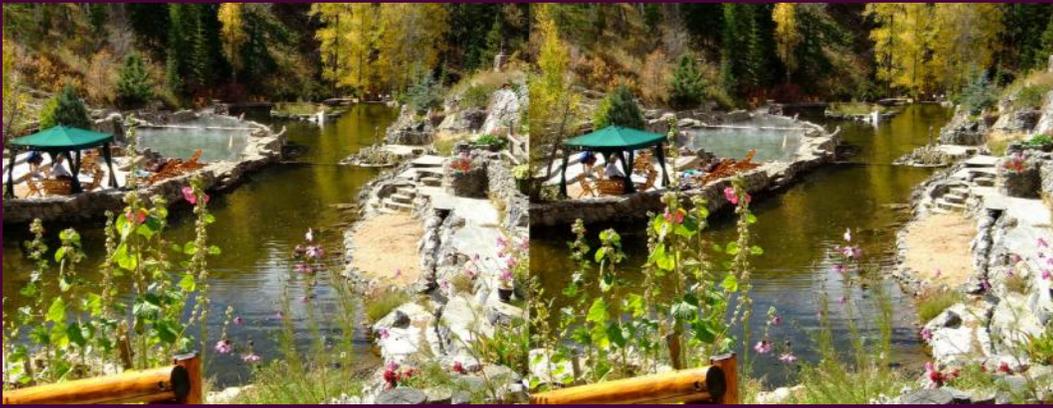


Photo by Ken Burgess

Need an External Flash for your Fuji W3 or W1?

We have several Sunpak flash units in stock that are perfect for use with the Cyclopital3D Fuji Adapters. These Sunpak units are not available new anymore but, they have a built-in sensor that allows for auto exposure, which is exactly what is needed for use with the Fuji cameras. The problem with many new flash units is that they meter through the lens of the camera and don't have an auto mode sensor, thus, they won't auto expose with the Fuji. Just send us a note at talsip@cyclopital3d.com and we'll let you know what we have.

Yahoo Chat Groups for 3D

If you are new to the 3D stereo world or just looking to "chat" with some fellow enthusiasts, there are a couple of Yahoo groups you might be interested in joining. There is a group for general 3D topics: <http://groups.yahoo.com/group/photo-3d/> in addition to and a group specific to the Fuji W3/W1 cameras: <http://tech.groups.yahoo.com/group/fuji3d/>.

The groups are a mix of new and experienced stereographers and are a good place to ask questions and/or keep up on the latest in 3D news. There is a no "selling" so you get honest advice and opinions.

Ken's Latest Creations

This will be a ongoing column in our newsletters because, as some of you know, Ken's mind is always working on something new.

We are excited that display technology has finally advanced enough to justify the significant investment necessary to design and manufacture a new Handheld Digital Viewer from the "ground up." We tested the new Sony head-mounted display and found the image quality to be very good, but the "form factor" leaves room for improvement and thus, an open door for us and our next model. We have discontinued production of our 1st model of the Handheld Digital Viewer and expect to release our new one some time in 2012. But, if you want the best quality in portable 3D viewing right now, our Lighted Print Viewer is just the ticket.

We will also be continuing to develop new adapters for select 3D cameras and camcorders as they continue to emerge.

3D is the Future of Photography!

Cyclopital3D

Fort Collins, CO

970.221.3923

talsip@cyclopital3d.com

kburgess@cyclopital3d.com

www.cyclopital3d.com