



# Panoram

Of the  
**Oakland Camera Club**

Member of the  
Photographic Society of America  
and  
Northern California Councils of  
Camera Clubs

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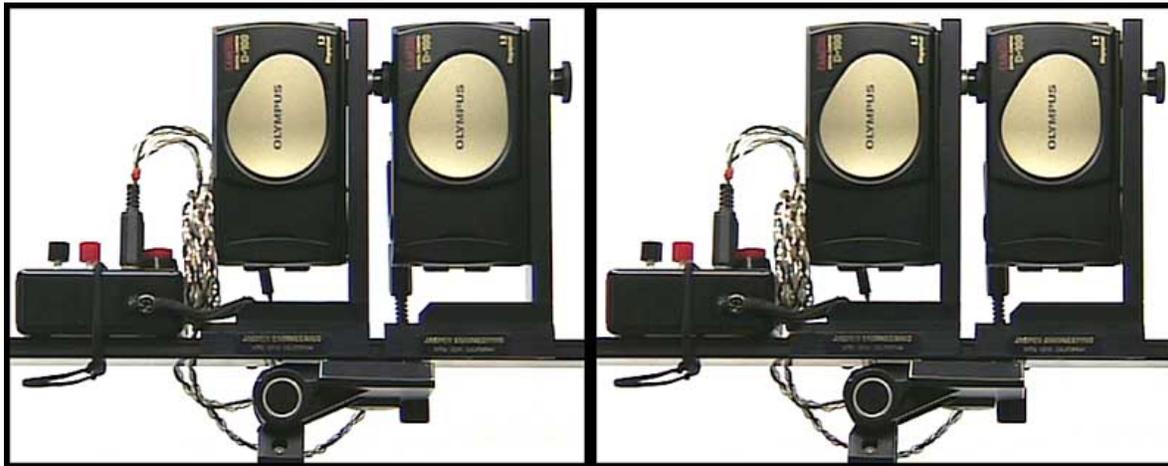
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## Digital Twin Camera Systems



Rommel Jamias' Olympus D-100 digital twin system (photo by Rommel)

Story and Photos by Harold Baize and Rommel Jamias

There is little doubt that digital photography will become the dominant format in the future, and the 35mm film format will continue to decline. Slide film is becoming more difficult to find, and within a decade or two, will only be available in photography specialty shops that cater to professionals.

Unfortunately, no manufacturer has produced a true stereoscopic digital camera. So the sensible response of the stereo enthusiast is to "make your own" digital stereo. Among the pioneers in this effort are John Thurston of Juneau Alaska, and the Oakland Camera Club's own Rommel Jamias. John Thurston has chronicled his work in creating two twinned digital systems, one with a pair of Canon A-100 cameras, and another using the Canon A-5, on his web site—<http://stereo.thurstons.org>. John Thurston's web site provides great detail on his twinning projects and is a good source of "how-to" instruction. In this article we will briefly describe the general features and issues involved in Rom-

mel Jamias' Olympus Brio D-100 system and the recently completed Hewlett-Packard PhotoSmart 318 twinned system by Harold Baize.

### Rommel's Olympus Brio D-100

There are basically two ways to twin digital cameras—wired shutter buttons and unwired. Rommel's Olympus twins are wired. There are many advantages to wiring the buttons in series, the primary advantages being better synchronization and greater flexibility in camera configuration. The Olympus Brio D-100 is a 1.3 Megapixel camera, which translates to a maximum image resolution of

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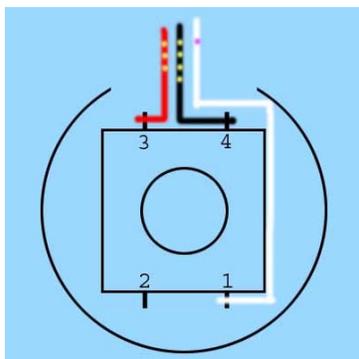
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1280x960 pixels. The camera shares the features common to the sub \$200 digital point-and-shot cameras, including auto-focus and auto-exposure. The Olympus Brio D-100 is 4.3 inches wide by 2.4 inches high, as a result it is limited to hyper, or wide base stereo when positioned in the standard landscape orientation. As configured in the stereo image on page one, in portrait/vertical position, the camera system is still a little hyper, with a stereo base of 3.25 inches.

Rommel uses a slide bar and vertical mounts from Jasper Engineering. He has also created a removable sync box that he likes to call the “detonator”. Such a box is not necessary as digital cameras are typically wired together, however it offers a number of benefits, such as a more convenient placement of the shutter release button when cameras are vertically oriented.

Wiring a pair of digital cameras is a delicate and precise task. Even getting the cameras open can be a challenge.

Once inside the main job is soldering wires to three of four contacts on the electronic shutter release switch. The contacts are very small and there is little space inside. **DO NOT ATTEMPT** to solder these contacts unless you are skilled and experienced with fine electronic component soldering!



**Electronic shutter switch contacts on the Olympus Brio D-100.**  
Illustration by Rommel Jamias.

The shutter button is a two step switch, pressing half-way engages the focus and exposure setting circuits, pressing further captures the image. To connect two cameras, you need to solder wire to three of four contacts on the switch. Typically, two of the contacts are connected, indicating that it is the common ground. It is not difficult to test the other two contacts to see which initiates the focus/exposure and which the shutter. In the illustration above, Rommel shows that switch contact 1 is the common ground (white wire), contact 3 (red wire) initiates focus/exposure when the circuit is completed to contact 1. The image is captured when contact 4 (black wire) connects with the contact 1 ground. The wires can be connected to standard stereo audio plugs and connected to allow either switch to operate both cameras, or connected to an external switch box, such as Rommel’s “detonator”.

Rommel has had great success with his twinned digital cameras, producing prints that have won in OCC monthly com-

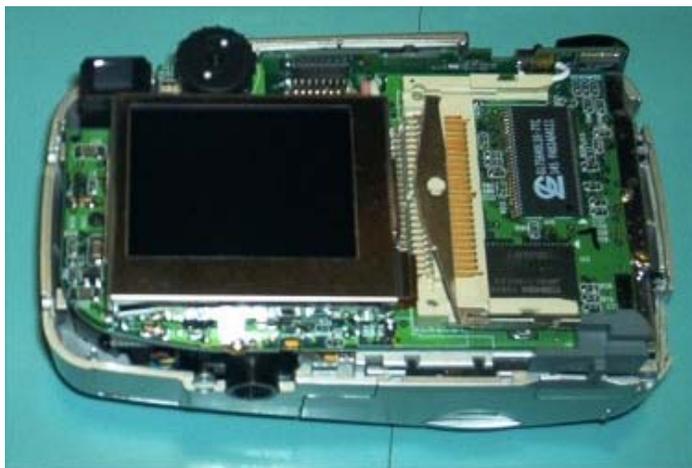
petitions. Rommel will provide much greater detail on his excellent system in a future Panoram article.

### Harold’s HP PhotoSmart 318 System

Harold decided to use the Hewlett-Packard PhotoSmart 318 for his digital twin system for good reason. First, it is the one of the highest resolution digital cameras available for less than \$200, with 2.31 Megapixels. It features a five element F2.8 lens with a 6.8mm focal length, which is equivalent to a 43mm lens on a 35mm film camera.

The images produced are 1792x1200 pixels, providing sufficient detail to create slides. The other desirable feature is that the lens is close to the left edge of the camera. Due to the asymmetrical placement of the lens, one camera can be inverted, allowing the lenses to be close together. With one camera “upside down” the twin system gives a variable stereo base as small as 1.4 inches. This allows close-ups, even in the traditional horizontal orientation.

Harold turned to his good friend Jeremy Lutes to solder the wires to the electronic shutter button. Jeremy is a very skilled artist and electronics engineer who was responsible for the Lily Pond art piece at this year’s Burning Man. After being soldered to the contacts on the internal switch, the wires were soldered to standard 1/8 inch stereo audio plugs and the two cameras were linked together with a simple stereo plug connector purchased from Radio Shack. Pressing either button controlled both cameras. To take photos, the button was depressed half-way, after both cameras indicated that focus was achieved (a green light in view finder, or indicated on color LCD viewing screen) then the button was fully depressed at the desired moment.



**Inside the HP PhotoSmart 318. The shutter switch is near the upper right corner.** (photo by Harold Baize using the second HP 318)

Initial trial shots using the twinned pair were not entirely satisfactory. Synchronization was not good in low light situations. Unfortunately Harold could not give the twinned system a full performance check because the modified camera pair was **stolen** less than two days after the contacts were soldered!

Rommel also admits that digital cameras are hard to synchronize. He makes the following recommendations to improve

stereo pairs:

1. Turn off the color LCD screen.
2. Turn off the flash.
3. Use the first button position to pre-focus the cameras and wait for the focus to be completed.

It is also important to have well matched camera pairs and to **keep them away from thieves.**

—Harold Baize and Rommel Jamias



**Sample stereo pair taken with the HP PhotoSmart 318 twinned cameras, note color balance and focal length difference.**

Photo by Harold Baize

## Competition Results

### September Competition

*Judged by George Humphreys*

#### Stereo View Cards

1st <i>Lanterns</i>	Rommel Jamias
2nd <i>Chapel</i>	Rommel Jamias

#### Stereo Slides– Group A

1st <i>Autumn Cottonwoods in Monochrome</i>	Oleg Vorobyoff
2nd <i>Sitting and Kneeling</i>	Barrie Bieler
3rd <i>Quartz, Tourmaline and Cookeite</i>	Barrie Bieler
HM <i>Look Up</i>	Harold Baize
HM <i>Cones and Needles</i>	Oleg Vorobyoff
HM <i>Fire-Singed Woodland</i>	Oleg Vorobyoff

#### Stereo Slides– Group B

1st <i>Lily Pads and Bloom`</i>	Jim Johnston
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### October Competition

*Judged by Charlie Patterson*

#### Stereo View Cards

1st <i>Dimples Posterization</i>	Barrie Bieler
2nd <i>Spray</i>	Rommel Jamias
3rd <i>Small Larkspur</i>	Barrie Bieler

October Competition continued...

#### Stereo Slides-Group A

1st <i>Late Afternoon City View</i>	Oleg Vorobyoff
2nd <i>Feline Stare</i>	Barrie Bieler
HM <i>The Maiden</i>	Harold Baize
HM <i>Fence Hanger</i>	Barrie Bieler
HM <i>Green and Blue</i>	Harold Baize

#### Stereo Slides– Group B

1st <i>Marije Steps on Board the Ark</i>	Jim Gasperini
2nd <i>Silvered Harold Pilots the Ark</i>	Jim Gasperini
3rd <i>The Lookout</i>	George Hearn
HM <i>Words Shared on a Sunny Day</i>	Chris Cavigioli
HM <i>Tombstones</i>	Jim Johnston

#### Stereo Slides – Special Topic: Motion

1st <i>Embarcadero Traffic Trails</i>	Oleg Vorobyoff
2nd <i>Dancing with Fire</i>	Harold Baize
3rd <i>Tall Tails: Tulle Tail</i>	Jim Gasperini
4th <i>Careful, Now</i>	Oleg Vorobyoff
HM <i>Flippant Venus Flow</i>	Jim Gasperini
HM <i>The Big Guy Tosses a Rock</i>	Chris Cavigioli

## The OCC Calendar and News

### Goodbye :-)

This will be my last issue of the Panoram for quite a while, although I may do another April fools issue. I will be moving to Chico in the middle of November. It is with great sadness that I must leave the Bay Area and miss most Oakland Camera Club meetings. I will visit as often as possible. — Harold Baize, guest editor and stereo nut

#### RBT Mounts

If you need more RBT stereo mounts and would like to order full boxes at the OCC discount, you can let Oleg know at our next Stereo Division meeting. He will place an order soon.

### 2003 Oakland International Stereo Exhibition

Our 48th annual stereo slide and 8th annual stereo card view exhibition will be held on Saturday **January 25th, 2003** at Ygnacio Valley Library, 2661 Oak Grove Rd, Walnut Creek. Entries must be received by **January 20th, 2003**. Entry details and forms are available in PDF format at our website:

<http://www.3dculture.com/occ/occnews.htm>

Oakland Camera Club Stereo Division meets on the first Tuesday of every month except December.

Our meetings are held at the Salem Lutheran Home, 2361 East 29th Street, Oakland California, at 7:30 pm. The Salem Lutheran Home has installed a security gate. Don't be alarmed. Just press 001 on the number pad and tell them you are with the Oakland Camera Club. There is ample parking available in a lot below the main building, take the first right turn after you enter the gate.

#### Stereo Division—November 4th

Our next meeting will be on November 4th. The stereo meeting will be at the Salem Home at 7:30 pm. Bring three slides and/or four cards for the monthly competition. The judge will be Bill Helsel, a professional photographer in the East Bay, who also teaches various photography courses for the Acalanes Adult Ed. School District. The 'program' will be a self-help critique session for both slides and cards -- with every member free to comment, so bring five or so extra slides and/or cards for this activity -- this is a good chance for you to 'try-out' a new stereo image, before trying it in a regular monthly competition.

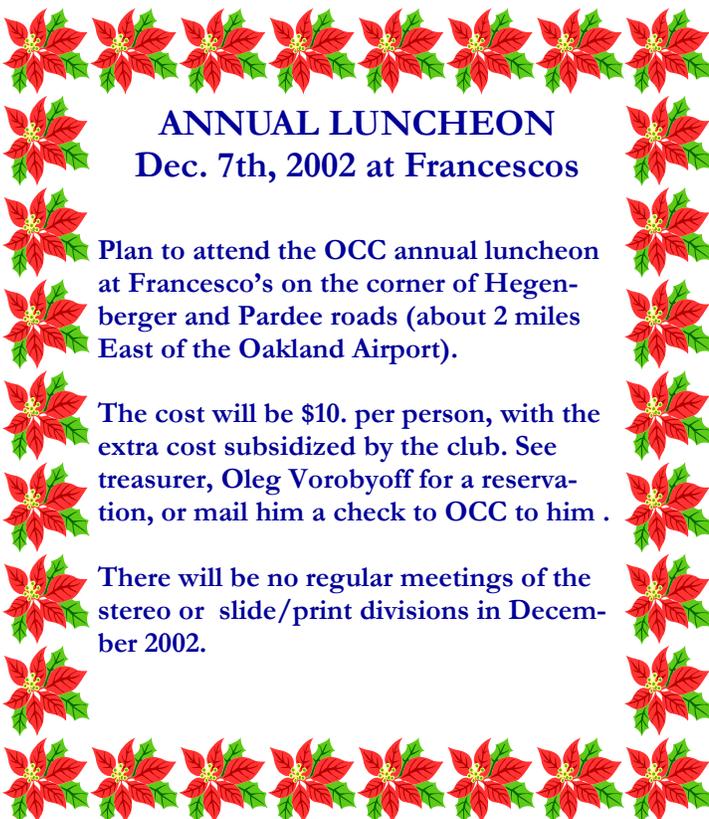
#### Slide/Print Division—November 14th

The slide/print meeting will be held at the home of Robert Baker. Call him a few days before if you plan to attend.

#### “End of Year” Competition

Bring your place winning stereo slides and cards from this calendar year to the November 4th Stereo Division meeting for our best of the year judging.

Also, members may enter up to three additional “non place winning” stereo slides or cards that were entered in a monthly competition this year. They may or may not have been given Honorable Mention, it is the entrant's choice.



### ANNUAL LUNCHEON Dec. 7th, 2002 at Francescos

Plan to attend the OCC annual luncheon at Francesco's on the corner of Hegenberger and Pardee roads (about 2 miles East of the Oakland Airport).

The cost will be \$10. per person, with the extra cost subsidized by the club. See treasurer, Oleg Vorobyoff for a reservation, or mail him a check to OCC to him .

There will be no regular meetings of the stereo or slide/print divisions in December 2002.



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