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## It's All about Image

Small digital cameras are now ubiquitous throughout the world. People use them to record snapshots of life's special moments that they once captured on film. Many digital cameras also allow their owners to shoot video. Their small size allows people to carry them everywhere—even when they don't expect to have a reason to shoot pictures.

When newsworthy events occur, the first photos and video that find their way to the news media often come from bystanders who were on the scene with a digital camera in hand. (Note though that the use of these cameras isn't always positive, since their small size allows for secretive shooting where photography is prohibited.)

If you have used a digital camera, you know the frustration of framing your shot using the camera's LCD screen in bright sunlight. Casio was the third company (Apple was first and Kodak second) to produce a digital camera for the consumer market. Since so many Casio products already used an LCD screen as the user interface, it was only natural for the company to use one on its first camera.

Digital cameras usually contain two viewing systems that the photographer can use to frame shots. The first is the LCD screen and the second, or backup system, is a standard camera viewfinder. When I first saw the new Casio 10.1-megapixel Exilim EX-Z1000 at a technology press event, I was intrigued by its megapixel count but disappointed to

see that the camera lacked an optical viewfinder.

I voiced my concerns to the Casio representative, and the company quickly sent me a test unit to dispel my reservations. On the first very bright, sunny day, I took my own Exilim EX-Z 55 5-megapixel camera and the EX-Z1000 out for a shoot. I made sure to have both cameras fully charged at the start of the test.

A quick look at the two pictures below might lead you to believe that I took them at different times. They



**Photo 1—New megapixel screen eliminates the sun's glare and reflection**

**Photo 2—Older LCD screen acts as a mirror in bright sunlight**



were actually shot, in bright sunlight, moments apart using the two different cameras.

In Photo 1, you can clearly see Jessica waving in the EX-Z1000 2.8-inch-wide LCD screen. This picture, shot with my camera, is underexposed in the swimming pool area of the picture.

In Photo 2, the LCD screen on my digital camera reflects so much sunlight that it acts as a mirror. If

you look closely at the picture, you will actually see me holding the EX-Z-1000 as I snap the picture. The EX-Z1000 also has new software that helps it catch accurate colors in under- or over-exposed areas of a scene. Note how this software upgrade got the exposure right over the entire picture.

I expect that the Casio LCD screen breakthrough will soon be duplicated on most other handheld devices that use an LCD screen as the user interface. The fact that I shot over 300 photos with the camera before it needed recharging certainly serves as proof that the new screen improves view ability without sacrificing battery life.

## Recalling the Facts

1. Why do digital cameras usually have optical viewfinder as well as an LCD screen?
2. Why has it been so difficult to increase screen visibility in the past? ©

*Alan Pierce, Ed.D., CSIT, is a technology education consultant. Visit [www.technologytoday.us](http://www.technologytoday.us) for past columns and teacher resources.*

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