

Sophistication at this level comes with only a few limitations. Beauty and brains, yes. Lightning fast response, no.

BY RON EGGERS

Ready, steady, PowerShot

CANON'S G6 IS A SOLID ADDITION TO THE POWERSHOT LINE

Consumer digital cameras are getting better all the time, with resolution that matches all but the most expensive professional models. The metering and focusing subsystems on these models—even the less expensive ones—are extremely sophisticated. And they have excellent optics with telephoto lens ranges that would meet the needs of many working photographers.

With all those features, the images they can capture are more than sufficient for many professional applications. In fact, the image quality is outstanding in some cases. But they still have limitations. In spite of all the talk about fast start up and improved write speed, they're often too sluggish, and tend to lack the responsiveness that serious photographers need.



Canon PowerShot G6

The Canon PowerShot G6 is a good example. I shot with it for almost two weeks in the Germany and the Czech Republic, where I lucked out in Prague, during an Indian summer of sunny days and warm evenings. The cold, rainy days, however, caught up with me in Dresden, where the color shots looked more like black and white.

The PowerShot G6 has superior optics and can capture outstanding image quality. Across a wide variety of lighting conditions and shooting situations, exposure and focusing were right on. But responsiveness wasn't up to expectations. The start-up time of 2 to 3 seconds—from turning the power lever on to being ready to shoot—was not a problem. Shooting was a different matter—the PowerShot G6 tended to hesitate. In the first few days, I consistently missed capturing the shot at the optimum moment.

It wasn't until I began to anticipate the shots that I got the pictures I wanted. With practice, I could get the camera to fire more quickly, but still with more hesitation than I'd have liked.

Shooting speed was good. With a

With the Canon PowerShot G6, shutter lag necessitates anticipating the shot to get what you want.

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1GB SanDisk Ultra II CompactFlash card, flash turned off, in single frame mode, I could capture 15 to 17 maximum-resolution JPEG frames within 30 seconds, about 1 shot every 2 seconds. After that, the frame rate dropped to about 1 every 3 seconds. With the flash turned on, I could get only 7 or 8 images within 30 seconds.

In the continuous shooting mode, the G6 fired 15 to 16 maximum-resolution JPEG frames in 15 seconds. After 15 seconds, the shooting slowed to 1 frame every 3 or 4 seconds as the buffer cleared.

As expected, capturing RAW images in the single frame mode slowed to 4 frames in 15 seconds. In the continuous mode, the first four RAW frames took about 8 seconds, then the rate dropped to about one frame every 3 or 4 seconds. That's solid performance for a high-resolution consumer camera.

On-camera image review is more drawn-out than it should be. The 2-inch LCD on the back of the body is very viewable, but the camera won't let you scroll through images rapidly, as many digital cameras do. Each file has to be loaded and displayed before going on to the next image.

The Canon PowerShot G6 is designed around a 7.1-megapixel CCD sensor with maximum resolution of 3,072x2,304 pixels. It comes equipped with a relatively fast f/2-f/3 4X zoom lens with a focal range of 7.2- to 28.8mm, the equivalent coverage of 35-140mm on a 35mm camera. Available telephoto and wide-angle adapters extend the 35mm equivalent range from wide-angle 24.5mm to telephoto 245mm.

Focusing modes include normal, for wide-angle focusing down to 1.6 feet; macro, for close focusing to 2 inches; and super macro down to 2 inches, but with larger frame magnification than macro. Focusing options include single AF point, which can be anchored to the center in



specs: Canon PowerShot G6

SENSOR: 1/1.8-inch CCD, 7.1 effective megapixels, 3,072x2,304 pixels

LENS: 7.2-28.8mm f/2.0-3.0 zoom lens (35mm film equivalent 35-140mm)

ZOOM: 4.1X

VIEWFINDER: Real-image optical zoom

LCD: 2-inch TFT, vari-angle, approx. 118,000 pixels

APERTURE: f/2.0-8.0 (W), f/3.0-8.0 (T)

SHUTTER: 1/2,000 second to 15 seconds, noise reduction applied with exposures longer than 1.3 seconds

ISO: 50 to 400 equivalent, auto

METERING: Evaluative, center-weighted, spot

EXPOSURE COMPENSATION: +/- 2 EV in 1/3-stop increments

FLASH: built-in, hot shoe

STORAGE: CompactFlash, Type I and II, microdrives

INTERFACE: USB 1.1

Street price: \$700

the fixed mode or moved in the FlexiZone AF mode, and a 9-point AiAF pattern. Autofocus, single or continuous, is controlled through a menu. Manual focus is also available.

The ISO equivalent sensitivity goes from 50 to 400, plus an Auto setting. Metering choices include evaluative, center-weighted and spot. Spot metering can be linked to individual AF points. Shutter speed ranges from 1/2,000 second to 15 seconds. Images exposed in excess of 1.3 seconds receive special noise reduction.

The PowerShot G6 has a built-in flash with multiple flash modes, and flash sync from 30 seconds to 1/250 second. It's compatible with all Canon EX series Speedlites, including macro flash units. There is a hot shoe, but no PC cord connector, so remote strobes have to be fired by a slave unit. It also works with the Canon E-TTL flash system, including ratio control.

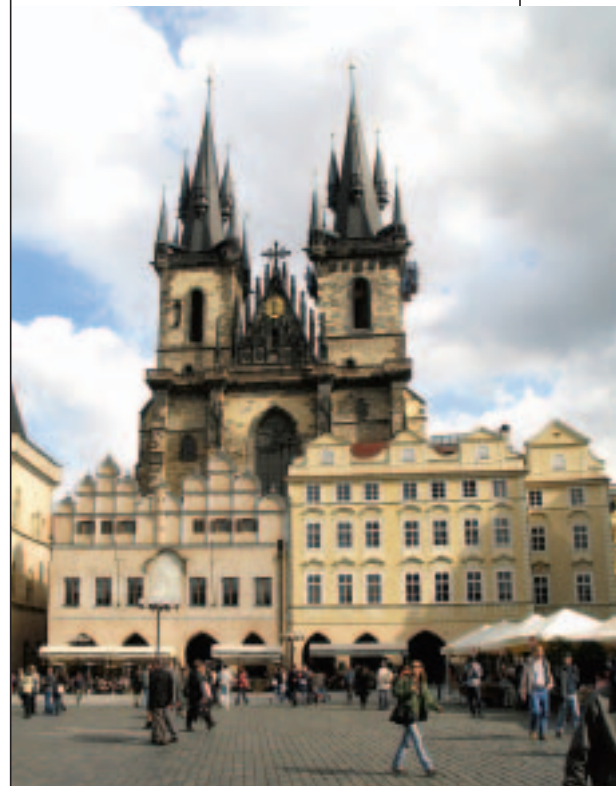
The G6 can take 30-second video clips,

with audio, at 15 frames per second, at 640x480-pixel resolution. At a resolution of 320x240, the clip length extends to 3 minutes. It's also possible to add 60-second audio clips to still images.

There are three options in the camera's menu structure: Record, Set up and My camera. The separate Function button on the back of the camera sets the resolution, compression, and file capture format (RAW, RAW with embedded JPEG and JPEG).

With some consumer digitals, the compression setting "S" means "small," for a highly compressed small file. On the PowerShot G6, it means "superfine," which is the lowest compression with the largest JPEG file size. In place of a menu, the Function button is also used to set such things as the ISO, the visual effects and flash compensation, so it's easy to change those settings without having to scroll through various menus.

With excellent image quality and a street price of \$700, the Canon PowerShot G6 would make a good backup for pros who want to augment their professional digital gear with a compact, carry-along camera.



The camera has a solid feel to it. The oversized handgrip makes it seem like you're shooting with a larger camera. The flip-out LCD rotates 270 degrees for odd-angle shooting. All the controls are easily accessible, but the mode dial can be a problem for someone with large hands. The thumb is meant to rest between the back of the handgrip and the dial, but unfortunately, it's all too easy to change the mode setting when you move your thumb even slightly. I don't know how many times I was shooting in a mode other than the one I wanted, simply because I had inadvertently moved the dial. It's not a major problem, but it is an unnecessary distraction.

Another distraction is the power lever on back of the camera, on top of the handgrip. Pushing it to the right activates the capture mode, pushing left brings up the review mode. A separate button turns the unit off. It sounds like a good arrangement, but a number of times, I inadvertently turned the camera on as I was putting it away when the power lever just slightly brushed against something.

Power management was excellent. The proprietary battery lasted for long days of heavy shooting. Generally, I was well into my second 1GB CF card before the power gave out.

The camera stores images on Compact-Flash cards, Type I and II, as well as Micro-Drives. It supports both 16- and 32-bit FAT card structures, automatically switching to the high file allocation when capacity exceeds 2GB. The computer interface is via USB 1.1, so transfer is relatively slow.

The PowerShot G6 is compatible with Canon card printers, from the CP-100 through the CP-330 models, and Canon Direct-print inkjets and other printers that support PictBridge. Bundled software includes ArcSoft Camera Suite 2.1 and Digital Camera Solution v20.0. ■