

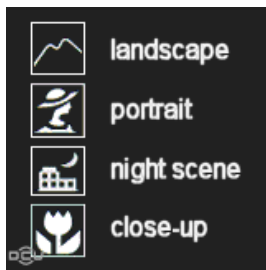
EXPOSURE MODES

Animation

Click to explore the exposure modes available on many cameras.



Modes and how they are designated on the camera vary from model to model. Modes that give you the most control, available only on more advanced cameras, are usually indicated with letters. Those that are fully automatic, often called scene modes, are indicated with icons like those shown on this Canon mode dial.



On some cameras you select exposure modes using buttons or a menu.

Digital cameras usually offer more than one way to control the aperture and shutter speed—called *exposure modes*. All modes give equally good results in most situations. However, in specific situations, each of these exposure modes may have certain advantages. Here are modes you may encounter:

- **Automatic mode** (full auto) sets the shutter speed and aperture without your intervention. This allows you to shoot without paying attention to settings so you can concentrate on composition and focus. In this mode you can't change many camera settings.

- **Scene modes**, which go by a variety of names (Nikon calls them *Digital Vari-program modes*), automatically adjust settings for specific situations such as landscapes, portraits, night portraits, sports, and close-up photography. On some cameras the number of these settings has gotten a bit out of hand since there are so many you have to select them from a menu.

- **Programmed AE (auto exposure) mode** is just like full auto in that it sets the aperture and shutter speed for you, but unlike full auto it lets you change many of the camera's settings. In this mode, many cameras also let you select from a series of paired aperture and shutter speed combinations that yield the same exposure as that recommended by the camera. This gives you control over how depth of field and motion are captured. One of the best things about this setting is that it prevents you from inadvertently selecting an exposure setting that exceeds the camera's range.

- **Shutter-priority AE mode** lets you choose the shutter speed and the camera automatically selects the aperture needed for a good exposure. You select this mode when the portrayal of motion is most important. For example, when photographing action scenes, such as those encountered by wildlife photographers, sports photographers, and photojournalists, shutter-priority mode might be best. It lets you be sure your shutter speed is fast enough to freeze the action or slow enough to blur it

- **Aperture-priority AE mode** lets you select the aperture and the camera automatically selects the shutter speed needed for a good exposure. You select this mode whenever depth of field is most important. To be sure everything is sharp, as in a landscape, select a small aperture. The same holds true for close-up photography where limited depth of field is always a major concern. To throw the background out of focus so it's less distracting as in a portrait, select a large aperture.

- **Manual mode** lets you select both the shutter speed and the aperture. The two are not linked as they are in all other modes. You normally use this mode only when the other modes can't give you the results you want. Some cameras have a bulb setting in this mode that lets you capture time exposures such as light trails at night. In bulb mode the shutter remains open as long as you hold down the shutter button.

- **Custom settings mode** on high-end cameras lets you store personal settings. This is as simple as setting the camera the way you want it and then selecting the menu's command that assigns them to the custom setting. Some cameras let you save one or more sets and then instantly access them at any time just by turning a mode dial. If you use the same settings over and over again, this is a great way to save them. For example, you can save one group of settings to capture macro subjects, and then use any of the normal exposure modes to capture other scenes.

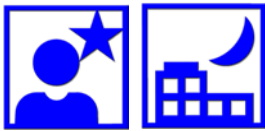
USING SCENE SPECIFIC EXPOSURE MODES



Portrait and Landscape mode icons.



Close-up and sports mode icons.



Night portrait and night landscape mode icons.

TIP

It would be nice if camera companies told you more about what settings they were manipulating in these scene modes, but none that I know of do so.



Sepia makes an image look like an albumen print from the 1800s.

Scene modes work just like full auto, but each draws on a library of settings designed for specific situations. For example, in Portrait mode the camera selects settings for a shallow depth of field so the background is softer. In Landscape mode, it does the opposite and selects a small aperture for maximum depth of field. (For more on the concepts of depth of field, see Chapter 4.) Here are the modes you are most likely to encounter.

- **Portrait** sets the camera for minimum depth of field so a portrait has a soft, and less distracting, background. To maximize the effect, zoom in on the subject, or use a long focal length lens (a telephoto) so the subject fills most of the viewfinder, and make sure there is as much distance as possible between the main subject and the background.

- **Landscape** sets the camera for maximum depth of field so as much of the scene as possible is sharp from foreground to background. Since a slow shutter speed may be used in this mode, you may need to support the camera. This mode works best with a short focal length (wide-angle) lens and the built-in flash is usually turned off so it won't fire.

- **Close-up** is used to capture flowers and other small objects but on SLR cameras this mode isn't a substitute for a macro lens. This mode works best when subjects are at the lens' minimum focusing distance.

- **Sports** mode is ideal for action sports and other fast-moving subjects because the shutter speed is set as fast as possible to freeze action. On some cameras, the autofocus mode is set to automatically keep a moving subject in focus, and continuous mode is selected so you can take pictures one after another as long as you hold down the shutter button. For best results use a long focal length lens.

- **Night Portrait** or **Twilight** mode is designed for photographing people or other nearby subjects at twilight, night, or dawn. The flash fires to illuminate foreground subjects and the shutter speed is set slow enough to lighten the background. Since it's likely a slow shutter speed will be used, you need to support the camera. Also, the shutter may remain open after the flash goes off so be sure to hold the camera still until the shutter closes, and if there are people in the foreground, ask them to freeze until a few seconds after the flash has fired.

- **Night landscape** doesn't fire the flash and instead uses a slow shutter speed to capture a landscape, and especially a cityscape, in the light of dawn, dusk, or night. Since a slow shutter speed will almost certainly be used in this mode, you need to support the camera. If the scene includes foreground subjects, you may want to consider using night portrait as well as this mode.

- **Black and White** or **Sepia** modes capture grayscale images. In sepia mode images are given a reddish brown tone to mimic old albumen prints.

- **Panoramic** mode, also called stitch-assist, helps you align a series of images so they can be stitched together on your computer using a panoramic stitching program. Some cameras will even stitch a panorama together in the camera but you can get better results, and much larger images, doing it on your desktop.

- **Other** scene modes you might encounter include party/indoor, beach/snow, sunrise/sunset, museum, fireworks, copy and backlight.