Pan-Action Tech

Text and photography by Jack and Sue Drafahl

Film vs. Digital

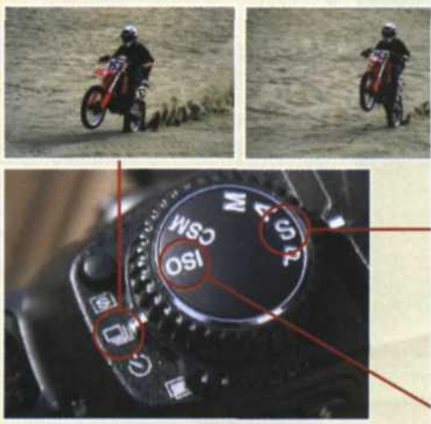
When you are panning with action, it's best to use your camera's continuous drive mode and shoot throughout the entire action sequence. You'll end up with more "keepers" that way. If you are using a 35mm camera, this approach can be a bit expensive because you'll burn a lot more film. If you are shooting digitally. however, you don't have to worry as long as you have enough room on your memory card.

IT ALWAYS REQUIRES KEEN anticipation to capture images at the height of the action. In the early days of photography there were only a minimal amount of film offerings, so film speeds were low, and flash was used in most cases to stop the action. As photographic technologies evolved, motor drives appeared on 35mm cameras. Action photographers could start shooting at the beginning of the action and take multiple frames throughout the event. This allowed them to capture the action, but focus and exposure were still problems since both were manually controlled. Experience and luck were common ingredients in great action photos of bygone days.

Thankfully, today's digital photo technology provides the necessary tools to get some dynamic action photos, even if you are just a beginner photographer. Of course, that's assuming that the tools are used correctly. We now have autofocus, autoexposure, automatic bracketing, and high-speed continuous motorized shooting. The term point-and-shoot can easily be applied to the small camera wonders, but also their bigger SLR brothers.

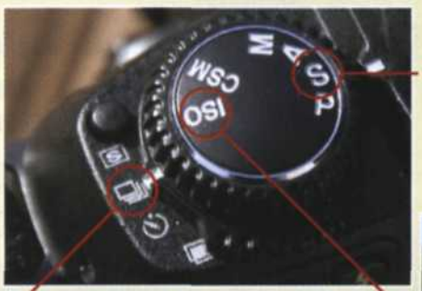
In the following text and images we have laid out a typical step by step guide designed to help photographers who want to expand their action photography. Keep in mind that the equipment and camera settings used for these images represent only one type of action photography. Your results will vary according to your subject's direction or speed, and your camera's capabilities.

Our test site is Sand Lake, a large sandy basin that stretches for miles near the Oregon coast, which is set aside for off-road vehicles like ATVs, motorbikes, and dune buggies.



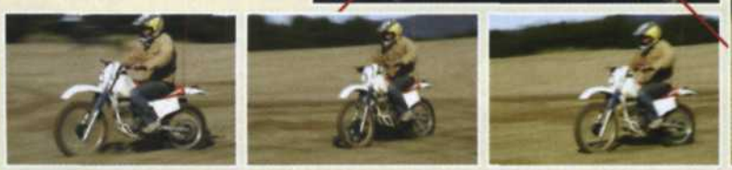
STEP 1

Before venturing into the world of action photography, you need to understand that there are two distinct approaches to capturing action. The first type of image stops all the subject movement, and has very little blurring in the background. This is the type of picture that most new photographers attempt when shooting action images. The



1/15 sec.
1/30 sec.
1/60 sec.

Continuous Frames



STEP 2

The second set of camera settings allows you to take action images with sharp subjects, but blurred backgrounds. The difference is that you use very slow shutter speeds as you use a method called panning. This is where you follow your subject by moving the camera in the same glide path, squeezing the shutter throughout the

niques Tips For Dramatic Action Shots

Continuous Frames

1/8000 sec.
1/4000 sec.
1/2000 sec.

ISO 400–ISO 800

setup requires that you set your ISO to 400 or 800, which allows shutter speeds in the $^1/_{2000}$–$^1/_{8000}$ range using shutter-priority exposure. This allows you to capture the action as it moves from side to side or when moving directly toward the camera.

You should set your camera to continuous advance because trying to anticipate the one perfect shot is going to be difficult. It's almost always better to shoot a series of images of the event, and then pick the best from the group. Film shooters have always had fast frame rates, but only recently have digital SLR cameras started to see frame rates faster than 2 fps. We found that 2–3 fps was more than enough to get the action shot.

The motorbike in the lower right was shot at $^1/_{2000}$ on a digital camera, while the series in the lower left was shot at $^1/_{4000}$ on a film camera. Both cameras used a 75–300mm zoom lens to capture the action.

STEP 3

Before you go out and start shooting action images at a special sporting event, we recommend that you do some testing near your home. This will ensure that you have the right camera, lens, and expertise to accomplish your goal. The easiest subjects to find are cars or bicycles as they pass you going down the street. With these subjects, it is easy to anticipate the action and it is easily repeatable. Try both styles of pan-action settings and note the best settings. If you are using a digital camera, it is imperative that you preview your images on a computer screen before deciding which setting works best. The image on your LCD may look great, but upon future examination, you may find that further adjustments to your settings are necessary.

camera movement. This only works when the subject is moving from side to side, not coming toward you. When you match the subject's movement, with the proper shutter speed, you will achieve a sharp subject and a blurred background.

The first step in accomplishing this method is to set your camera to a slow ISO speed such as 50–100. With subjects such as cars, motorbikes, and ATVs, $^1/_{15}$–$^1/_{60}$ is a good range of shutter speeds to start. The $^1/_{60}$ speed keeps the bulk of the subject sharp, yet slightly blurs the background; $^1/_{30}$ keeps about 50 percent of the subject sharp, and results in considerable blurring of the background; and $^1/_{15}$ only keeps about 25 percent of the subject sharp and results in extreme blurring of the background.

The motorbike at the bottom of the illustration was shot at $^1/_{15}$ on a 2 fps digital SLR camera.

Jack and Sue Drafahl began their photography careers at the Brooks Institute of Photography. They've been involved in the digital revolution since the early '80s and have written several books on photographic techniques.

STEP 6

Once you feel you are getting great images using the high-speed shutter setup, you should then change over to the slow shutter speed settings. Try 1/15, 1/30, and 1/60 as each subject passes, remembering to pan and follow though. To really see how you are doing with your digital camera, you will either have to use the zoom function on the LCD to preview enlarged sections of the image, or review the image on a laptop computer.

Don't get frustrated, as it takes some time before you start to get some great images. Once you have your exposure zeroed in, the biggest problem will be due to hesitation during the panning process. The smoother you can pan with the subject as it passes by, the better your shots. This is the same ATV driver as shown before, but now the shutter speed was 1/30. Only one out of five shots in a continuous series had the desired image content.

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STEP 7

Once you have acquired some good shots using slow shutter speeds, it is time to experiment with wider lenses and get closer to the action. In this case we used a 28–300mm zoom set to 75mm as the ATV driver zoomed by.

STEP 9

Now it is time to play and expand your settings beyond those you have used up to this point. One of our favorite creative effects is to use a very slow shutter speed setting when panning images. For this photo we panned with the subject using just 1/11 second shutter speed. The background will be extremely blurred and the subject will even start to form secondary ghosting images. Not everyone will like this type of image, as it falls into creative subjectivity.

STEP 8

If you have perfected your panning skills and have become proficient at both styles of panning techniques, then you are probably ready for the more advanced pan-action techniques. Using the slow shutter speed settings, pan the subject as it passes by and move the zoom function as the subject approaches. Practice framing and zooming the subject to the desired image size as it cruises past. Not much of the zooming effect will be evident, but the small portion that shows will add an increased feeling of motion.

Bottom Line

Pan-action photography will allow you to produce some very exciting images of objects in motion. The key is to understand the potential of both your shooting skills and your camera equipment. Take some time to practice and experiment so you have a good working system and then go out and capture some great action images. ■