My Thoughts on Spot Focus

By Gerry Gerling

These are my thoughts on Spot Focus. You may prefer another method of focusing, and that is fine if it suits you. I am just giving you my choice.

There are many ways that you can set your camera to autofocus. You can choose from a number of arrays, from a small group of focus points to many focus points that will almost fill the viewfinder. Or, you can choose only one focus point.

It is a fact of optical physics that a lens can only focus exactly on one plane at any given setting. That is, there is only one plane in the picture that is in precise focus. Even within the depth of field (DOF) where everything is supposed to be 'acceptably sharp', only one plane will be in precise focus.

An object which is 'acceptably sharp' within the DOF is in reality out of focus, but within the range that the average human eye generally cannot detect much unsharpness.

Sharpness gradually diminishes from the precise focus point as the distance away from it increases, or decreases.

Your camera may have a multiple array of "focus points" but only one will be in precise focus. These focus points are not sensors, they are only points within the frame where the focusing software in your camera looks.

The camera will measures the distance to the object behind each one of these points and then decide how to average them. It will try to get as many as possible within the depth of field, always giving priority to the closest point.

The only thing even slightly 'magical' about these points is that some have the ability to focus on both horizontal and vertical areas of contrast and if your camera has these, the one in the centre will always be one of them.

If a point and shoot average is what you want, well, go for it. It is a feature of your camera if you choose to use it.

Although manual focus has its place, given enough contrast, your camera's autofocus system is faster and more accurate than focusing manually.

However, what about getting the absolute best focus on a critical subject? For instance, a facial portrait, or a close-up of an animal.

When we look at this type of picture we are instinctively drawn to the eyes, and that is what we should be focusing on.

With an array of focusing points the camera will always get the nose in focus because it is the closest object.

Enter **SPOT FOCUS**! Spot focus is the only way YOU can choose where your camera will focus the lens.

For example, if you are attempting to take a picture of a bird in a tree which has multiple leaves and small branches in front, spot focus is the only way to get the bird precisely in focus.

Any other autofocus method will focus on the nearest twig or leaf. Before I chose spot focus, this used to drive me crazy.

If you use back button focus, spot focus will usually be used.

You will have to choose the centre spot and lock it in. Many photographers, myself included, use spot focus almost all the time.

I will use a tight array of focus points for birds in flight because It is difficult to hold the focus spot on a small, fast moving object, with a long lens.

In order to successfully use spot focus for general photography you should be able to have a feel for what your depth of field will be.

As a general rule, 2/3 of the DOF will extend beyond the point where you have focused, and 1/3 in front.

If there is a definite point of interest in the picture that must stand out, just focus on it. Easy.

Three things will come into play when you are deciding how broad your depth of field will be:

1. A telephoto lens will give very shallow DOF while a wide angle lens will give a very broad DOF;
2. The closer you are to the subject, the shallower the DOF and further away the DOF will be broader;
3. A large lens opening will give shallower DOF and a small lens opening will give broader DOF.

And of course there are an infinite number of combinations of the above.

For example, for the absolute shallowest DOF set your longest lens to its maximum aperture and shortest focusing distance. (This should give you great bokeh.)

And conversely, for the absolute maximum DOF set your widest angle lens at its minimum aperture and focus at the hyper focal distance.

You may say "what the heck is the hyper focal distance"?

DEFINITION OF HYPER FOCAL DISTANACE - The hyper focal distance is the point which you focus upon which will make infinity the furthest edge of your DOF.

There are hyper focal distance charts and you may even have as AP on your phone which will assist you but with practice, you should be able to make a good guesses at what to focus upon which will still result in infinity being at the far end of the DOF.

If your landscape picture has distant objects (think infinity) and you want as much of the foreground as possible to be in focus, do not focus on infinity because you will be wasting the 2/3 part of your DOF.

Remember I said that the DOF extends 2/3 beyond the focus point and 1/3 in front of the focus point.

Focus on something closer than infinity and you will put that 2/3 of your DOF to work and thereby more of your foreground will be in focus.

In this example the exact place to focus would be at the hyper focal distance.

I have found that with a little practice spot focusing gives me sharper focus and sharper where I want sharpness to be than using an array of focus points.

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