

# Hyperfocal Distance, the Photographer's Friend

<http://www.digital-photography-school.com/hyperfocal-distance-photographers-friend>

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They say there's no such thing as a free lunch. Maybe.

However, in photography of the digital kind, there's an equivalent function that, used properly, can be of enormous help in capturing subjects with degrees of sharpness that may surprise the less informed photographer.

For some unknown reason you won't find much about hyperfocal distance in recent digital photography books. Why? I suspect many writers on the subject try to avoid talking about the long established principles of photography to give the impression that digital photography is all about the pleasure of the craft and not to frighten people with the techy bits, all the historic paraphernalia of f stops, circles of confusion etc.



Anyway ... I sometimes look longingly at my unused film camera gear and especially at the lenses and then notice something I see on very few current digital SLR lenses — a scale displaying a zone of focus. This shows the function of lens aperture and distance setting; with a zoom lens there is info on the lens barrel that helps you to calculate the effect of changing the lens aperture, focus setting and focal length.

Hyperfocal distance — call it a zone of focus — is a useful feature that is the function of the lens aperture (f stop), distance and focal length.

When you focus your lens there will be a zone that is in focus and areas that are out of focus. The area that is in focus is called the *focal plane of acceptable sharpness*.

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The interesting thing about this focal plane is that, when you focus on a subject, one third of the distance closest between subject and camera is in focus; secondly, two thirds of the zone that stretches out from and behind the subject is also in focus.

Here's one way you can use it: when shooting landscapes it's an easy chore to focus at infinity. A more intelligent and productive approach is to focus at a point just short of infinity. That way you will get an additional area in front of distant subject matter that is also in focus. You then get the greatest range of focus from the camera out to infinity.

An easy approach to ascertain and maximise a deep focus range is to use the depth of field preview button on your camera. Try it.

Set your camera on a tripod; set it to manual focus. Aim at a scene. Focus on a point about a third the distance between you and the subject. Now, preview the depth of field with a press of the button. See how this depth will vary as you change the lens aperture. Open the lens, say to  $f2.8$  ... little depth of field. Stop down to  $f11$  ... much more depth of field.

There are all sorts of tables and calculations to help assess hyperfocal distance but, in these digital days, they effectively mean nothing due to varying image sensor sizes and inkjet printing methods.

***But it's still a trick worth knowing.***

