

Nikon D7000 Experience

The Still Photographer's Guide to Operation and
Image Creation with the Nikon D7000

an eBook by:
Douglas J. Klostermann

D7000

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INTRODUCTION

The introduction of the Nikon D7000 created great excitement, especially for photographers who were awaiting a successor to the D90. Its features and capabilities exceeded expectations by providing users with an advanced, more sophisticated autofocus system, a ruggedly built body with a professional feel, and an improved sensor, processor, and exposure metering system. Its great image quality at high ISO settings, dual memory card slots, big and bright viewfinder, high capacity battery, video capabilities, customization options, and fast continuous frame rate make it one of the finest dSLR cameras in its class. Not only is the Nikon D7000 a significant upgrade to the D90, but it also rivals the more expensive semi-professional Nikon D300s in performance, construction, and image quality.

The Nikon D7000 is clearly a powerful, advanced tool for digital photography: 16.2 megapixel sensor, 39 point autofocus system, 6 frames per second (fps) continuous shooting speed, and high ISO capabilities. It is fully capable of capturing professional quality images in most any situation you wish to use it. But it is merely a tool.



Figure 1 – Detail of the Nikon D7000 digital SLR

It is up to you to make use of its features and capabilities to create the images you envision. While the camera's manual can tell you about all the settings and controls and how they function, this guide will build upon that and tell you when and why you want to use them. Every button, menu item, and Custom Setting of the D7000 is there for a reason: to help you capture the images you want. Some of them are more useful to different types of photographers and shooting situations and you don't need to learn and use them all, but this guide should help to give you the knowledge to confidently use the ones that turn your Nikon D7000 into an image capturing tool that works best for you.

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There are many different ways to use a digital SLR (dSLR) camera and its controls to capture images, and I'm not going to attempt to explain them all. I am going to concentrate on the ways that I believe are the most practical, useful, and effective. The settings and techniques I discuss apply to general photography, which includes most travel photography. I will point out other options for users who might wish to work differently and I encourage you to experiment and find the techniques that work best and are most comfortable or intuitive for you. If you typically shoot very specifically, say macro photography or studio photography with complex lighting, some of what I discuss may not apply. But if you are that specialized, I'm sure you are skilled enough to know when and how to adapt what I say!

Since this guide is intended to help you get the most out of your D7000, I will not discuss or go into detail about many of the automatic features or Auto and Scene Modes. The D7000 is a sophisticated tool that deserves to be used to its full potential, and that means taking control of the camera and its functions. And since this guide is about image creation – the capturing of a photograph – it will not discuss features that deal with image processing, such as the Retouch Menu. And finally, while it will discuss basic video settings and options to get you started, the guide will focus on still photography and image creation. However there is a great deal to be learned about everything else including the autofocus system, the elements of exposure, exposure metering, white balance, and even basic composition.

This guide is intended to be used in conjunction with the camera's manual, not to replace it, so every bit of information in the *Nikon D7000 User's Manual* will not be repeated here. For example, I may explain the use of Single-point AF (Auto-Focus), but not explain how to change to this setting on your camera. If you don't know how to change it please read the manual where it will tell you to make sure the focus mode selector is set to AF, then press and hold the AF-mode button as you rotate the Sub-Command Dial until *Single-point AF* is displayed on the top Control Panel screen.

As you can see, there is a lot to make sense of regarding terminology and controls, so I recommend that you familiarize yourself with the controls and displays of the camera body, as shown on pages 2-12 of the *D7000 User's Manual*, as well as read through the manual and attempt to understand as much as possible. Yes, much of it may be complicated and confusing at first, but this ebook guide will attempt to cut through the numerous buttons, controls, menus, and settings and concentrate on the essential ones to get you started taking great images.

Various settings of the Nikon D7000 can be controlled in multiple ways including using the buttons and dials on the camera body while reading the settings on the top LCD Control Panel or in the Viewfinder, or through the menus on the rear screen accessed with the Menu Button and read on the rear LCD Monitor. Explore the options and find the ways that work most quickly and intuitively for you.

Any time I capitalize something in the text, it is a proper term that can be looked up in the Nikon D7000 manual. I will capitalize the names of actual buttons, controls, camera parts, and menu items, such as Delete Button, Main Command Dial, Monitor, and Format. Again, please review the camera body and display diagrams in your D7000 User's Manual to familiarize yourself with the names of various parts, controls, and displays, as I will use these proper names in this text.

NEF (RAW) Recording

Again, as above, set to *Lossless Compressed* and *14-bit* unless you find the NEF (RAW) file sizes too large and unmanageable, then select *Compressed* and/ or *12-bit*.

White Balance

Although White Balance (WB) can be selected using the WB Button, advanced users can do a little more WB fine tuning through this menu. You will need to access this menu to set a specific fluorescent WB, so you may wish to put this in **My Menu** (learn more about **My Menu** below). See pages 119-129 of the manual for detailed information about fine tuning White Balance. More about **White Balance** and setting a custom Preset WB will be covered below.

Set Picture Control

User preference for those shooting JPEGs. Not needed if you shoot in RAW because the selected style applies to JPEG files only, although please note that the Picture Control you set applies to the images and histograms you see on the rear LCD Monitor *even* if you are shooting in only RAW. So the exposure shown on the LCD Monitor may not be the same as the exposure of the RAW image. Therefore it is somewhat important that you leave this set at *Standard* (or *Neutral*) if you shoot RAW. Also choose *Standard* or *Neutral* if you shoot JPEGs but plan to edit in Photoshop later. If you shoot in JPEG and don't do any post-processing, it is best to modify and fine tune the Picture Controls to obtain images with the sharpness, contrast, brightness, and saturation you desire. More on **Picture Controls** later.

Manage Picture Control

Use this to save the modified Picture Controls that you create. More on **Picture Controls** below.

Auto Distortion Control

This is used to automatically correct distortion (the apparent curving in an image) caused by a wide or long lens. You may wish to use this with your G and D type lenses, but if you do not want the camera doing this without any of your control, turn this *Off* and correct distortion in Photoshop if desired.

Color Space

Leave on sRGB. Read the various blogs, forums and books that endlessly debate sRGB vs. AdobeRGB. Then continue to leave it on sRGB. sRGB is a slightly smaller color space than AdobeRGB, but will display properly on computer screens and printers. AdobeRGB is intended for advanced post-processors and uses like commercial printing. Unless you are calibrating your monitor, printing with a printer that has 6 or more ink cartridges, shooting for a commercially printed publication, and well versed in setting color spaces in Photoshop and printing, you will not miss the difference and images in AdobeRGB will possibly not display or print properly.

Active D-Lighting

Active D-Lighting is an exposure adjustment to an image that occurs in the camera, and is useful for high contrast situations where there is a wide range of lighting in your scene from bright to dark shadows. It will help to preserve details in the shadows and especially in the highlights, and will help to prevent blown-out highlights. If you are shooting in JPEG, experiment with Active

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comes between you and your intended subject. This setting will determine if and how quickly the camera then focuses on this nearer player, or if it continues to focus on your original subject as the closer player passes through your field of view. If you do not wish for the camera to suddenly change focus to the nearer player, set to *Long*, 4 or 5. If you wish to switch focus to a sudden closer or farther object, such as perhaps a flock of moving birds where focusing on any bird and not a specific bird is the priority, then set for *Short*, 1 or 2, or even set for *Off* and focus will immediately change.

a4: AF point illumination – This is used to set whether or not the selected autofocus point (AF Point) is illuminated in the viewfinder. Since you pretty much *always* want to know where your camera is focusing, this should be set for *On*.

a5: Focus point wrap-around – This determines if the AF Point selection will “wrap around” to the other side of the screen when you reach an edge. In other words, if you are selecting your AF Point (as you should be doing at almost *all* times) and you reach an AF Point on the far right, when you click right again, do you want to “wrap around” to a focus point on the far left, or do you wish to stop at the edge and not continue to the other side? I do not like my selection wrapping around, since it is unlikely the subject suddenly goes from the far right of the frame to the far left or from the top to the bottom, so I suggest setting this for *No Wrap*. But if you find it quicker to select your AF points by wrapping around from one side to the other or from top to bottom, change this to *Wrap*.

a6: Number of focus points – This setting determines the number of autofocus points that are available for selection in your viewfinder. If you are always selecting your AF Point (as you typically should) you may find that it is quicker and easier, at least at first, to limit the number of AF Points to 11 – *AF11*. If you prefer to have all the AF Points available for your selection, set this at *AF39*. If you set to 11 AF points your selection will be limited to those 11 AF points, but the additional surrounding AF points will still be active to be used by the camera in the AF-Area Modes and in subject tracking, so the camera is still taking advantage of all the AF points of the autofocus system.

a7: Built-in AF-assist illuminator – This is used to enable or disable the autofocus assist light. Turn this *On* to assist you in autofocusing in low light, but be sure to turn it *Off* if you are working in situations where it will be distracting, unwanted, or unnecessary.

a8: Live view/ movie AF – These settings are used to select how the camera autofocuses while working in Live View or while recording movies. Use *Single-servo AF* for stationary subjects and *Full-time-servo AF* for moving subjects. Then select the desired AF-area mode: *Face*, *Wide*, *Normal*, or *Subject-Tracking*. *Face-priority* is obviously good for tracking and focusing on faces, however it can lose the subject if their face turns sideways or is obscured. *Subject-Tracking* is good for following moving subjects. Set *Wide-area* or *Normal-area* in other situations, based on how precise you wish to be and how large of an area you wish the camera to look at to determine focus.

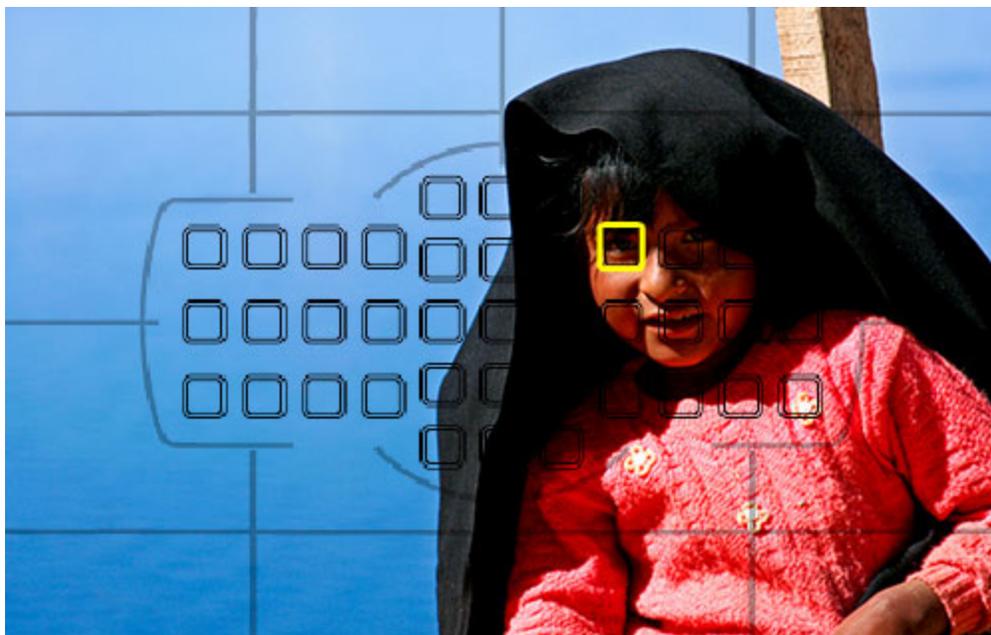


Figure 3 – Selected AF Point (shown here in yellow) positioned over subject's eye and focus locked with half-press of Shutter-Release Button.



Figure 4 – Framing of image recomposed (notice hand at lower right now visible) as focus is still locked by holding Shutter-Release Button half pressed. Shutter-Release Button fully pressed to take image.

To see how autofocus point selection works, set the Focus Mode Selector switch, near the base of the lens, to AF. Make sure the focus mode on your lens is also set for autofocus (A). (If it ever seems that your camera or lens is not autofocus, be sure to check these two switches.) Press the AF Mode Button inside that switch and set the Autofocus Mode to AF-S (Single-servo AF) using the Main Command Dial and set the AF-Area Mode to Single-Point AF using the Sub-

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Command Dial. Ensure that the Focus Selector Lock switch below the Multi Selector is *not* set to L (Lock).

- Set the Mode Dial to P (Program).
- Tap the Shutter Button with a half-press to wake up the camera and start the exposure meter.
- Looking through the viewfinder, use the Multi Selector to select the focus point that is nearest to where you want to focus.
- Place that point over your intended subject.
- Press and hold the Shutter Button halfway down and see that point blink red. The In-Focus Indicator should light up in your viewfinder. You have locked the focus.
- Keeping the Shutter Button pressed halfway, recompose if necessary, and take the shot by fully pressing the Shutter Button.

There are reasons to use the outer focus points and not just the center one all the time, which will be discussed later. It may sound difficult to select the Focus Point each time, but it is actually very quickly done and will become instinctive. You may even start to set your Focus Point as you approach a scene before even bringing your camera to your eye. But if you wish, you can start by always using the center point and recomposing before taking the shot.

If the In-Focus Indicator does not light up and the camera does not take the photo, the camera may not be finding something to focus on or you may be too close to your subject for the lens to focus. Autofocus works by looking for contrast, so try focusing on a detail with a strong line or strong contrast between light and dark. It may not be able to focus on a large area of consistent color or a subject that is too dark. It can be disrupted by regular patterns or confused when looking through close objects to objects farther away, such as looking through a fence. **When photographing people, always try to focus somewhere on the face, ideally on the eyes or eyebrows** (see *Figure 3*).

Autofocus Modes

The D7000 has three different Autofocus Modes to choose from, typically depending if your subject is still or moving. It also has four different **Autofocus Area Modes** (see below) to specify how many of the AF points are active and how they track a moving object. You can set these two functions in various combinations. First the Autofocus Modes:

Single-Servo AF (AF-S)

Use this mode when your subject is stationary, or still and not going to move, or if your subject is not going to move very much, or if the distance between you and the subject is not going to change between the time you lock focus, recompose, and take the shot. Lock focus on the subject and recompose if necessary. When using AF-S, you can select from two Autofocus Area Modes, either Single-Point AF where you select the AF point, or Auto-Area AF, where the camera selects the AF point(s) for you. I suggest you nearly always select your own desired AF point.

What Readers are Saying about Nikon D7000 Experience:

This book, together with the manual that came with your camera, is all you need to start discovering the full potential of the D7000.

-Max M.

It's the first guide I've read which has taken me through all the settings in an understandable way. I now feel that I have control over the camera.

-Peter S.

I would recommend this to anyone who wants to get a quick start to using the D7000. Manuals are nice, but this eBook highlights the important information and gives a quick easy to understand explanation of most all of the functions and controls.

-Ray M.

It's clear, concise and gets to the heart of the camera's multiple and often confusing options. Very highly recommended – for experienced user and beginner alike.

-GSA

I found the Nikon manual good for understanding how to set things up but not much on the why – this book really focuses on the "why." The guide helped me understand why to use specific settings for specific needs.

-Benoit A.

This manual is a clearly written, concise and useful explanation of the rationale for the seemingly infinite and often confusing settings options for the D7000. Used in conjunction with the Nikon manual I feel a bit more confident in understanding how to at last proceed in getting better photographs.

-WLS

Learn more about Nikon D7000 Experience and purchase it here:

[http://www.dojoklo.com/Full Stop/Nikon D7000 Experience.htm](http://www.dojoklo.com/Full_Stop/Nikon_D7000_Experience.htm)