

# Ken Rockwell

I support my growing family through my website, KenRockwell.com, and these online PDFs.

Please enjoy reading this online all you want, but this PDF is not free to print.

If you wish to print or save your own personal copy of this copyrighted PDF, please PayPal me \$5 for every full or partial copy you print or save. This mandatory \$5 licence fee is what supports me and keeps these PDFs as easy downloads. My PayPal email address is PayPal@KenRockwell.com.

Your honesty (I send no receipts) lets me keep writing guides and providing easy downloads, instead of having to use a complex pay-before-play system. (If you got your D700 through my website links or have made a previous contribution, you've already paid. THANK YOU!)

[If reading online, Click Here to pay via PayPal](#)

Thanks for reading!

Ken

© 2009 Ken Rockwell. All rights reserved.

# Nikon D700 Users' Guide

## Introduction

This will teach you every possible nuance of using the Nikon D700. This will make you to an expert on the Nikon D700. It includes lots of tips, tricks, secrets and the settings I prefer to use, but this alone won't get great pictures.

To get great photos you still need to get yourself to the right place at the right time and point the camera in the right direction, which is a lot harder than mastering the D700. Right out of the box at default settings the D700 does a great job.

Making a great photo involves knowing what makes a great photo, knowing how to get great exposure, knowing when to use the D700's adjustments, knowing how to get great color, locations, timing, patience and a whole lot more. I cover

general photography issues here.

Getting great photos out of the D700 really only takes your eye and about two settings:

- 1.) Take a picture. Look at the rear LCD. OK? You're done.
- 2.) Too light or dark? Change the Exposure Compensation and shoot again. OK? You're done.
- 3.) Colors not right? Adjust White Balance and try again. OK? You're done.

4.) Contrast, saturation or other fine points not right? Adjust the Picture Controls.

For more examples of why you'd want to change these settings and why, also see my the "teaching" galleries on my Gallery page.

Looking for a specific control? Use my Search page. Be sure to mention the D700 in your search.

Want free live phone support? In the USA, call (800) NIKON-UX, 24 hours a day, 365 days a year.

Next are the basics. Explicit details follow in later pages.



# Nikon D700 Camera Settings

## FORMAT

Always format your card after you put it in any camera, or if you've connected your camera to a computer.

Formatting your card(s) ensures any folder or file corruption acquired anywhere goes away.

You can shoot without doing this, however constant formatting is good practice and should eliminate ever having any card errors.

Be sure you've downloaded and backed up all the files in at least two different physical locations before formatting.

## Reset

I reset everything every time I use my camera, much as a pilot uses a checklist before flight to prevent any switches from being in the wrong position. When I don't check first, I often have left my D700 in some screwy mode, like 2,500K WB and ISO 3,200, from shooting in the dark the night before.

Nikon has an easy reset feature. I use it every time! My standard operating setting is only a couple of clicks different than the defaults.

Find the two green dots on the • QUAL and +/-• buttons on the left and right of the top of the camera. Hold them both down for a few seconds. The top LCD blinks and everything is back to normal.

I do this every time I use my D700. If I forget, I may have the resolution or White Balance or ISO or God knows what set to something screwy and spoil all my shots. I'll see WB problems on the LCD, but I won't notice if I left my D700 at ISO 6,400 or SMALL image size from the night before unless I look very carefully. That's why I always use reset and set from there.

Reset leaves the detailed menu tweaks alone and is smart enough to reset only the big dumb things I might have moved overnight.

## QUALity

I use Large, JPG, BASIC, Optimal Quality Mode.

Reset brings you to NORMAL JPG. Once I've reset, I immediately change to my preferred QUAL setting: BASIC. Do this by pressing the QUAL button on the top left and spinning the rear dial one click to the right. This shows as L and BASIC on the top LCD. L stands for Large image size (4,256 x 2,832 pixels) and BASIC JPG compression.

For most people and family pictures, 12MP is too much. 6MP is enough even for great 12 x 18" prints, so I usually shoot at M image size (3,182 x 2,120 pixels). To change the pixel dimensions (image size), hold the QUAL button and move the front dial one click to the right. You'll see the L change to an M on the top LCD.

I prefer warmer (oranger) images, so I hold the WB button and click the front dial (just in front of the shutter) a couple of clicks to the left to A2 or A3.

These are the only things I change from the **reset** mode. Everything else I tweak below is unchanged by **reset**.

I use a hidden menu option to set the JPG compression mode to Optimal Quality instead of the default of Size Priority. Do this at MENU → SHOOTING (green camera icon) → JPEG Compression → Optimal Quality. Once set, it stays this way even when the camera is green-dot reset. This mode gives smaller files than NORMAL and better quality than BASIC. See details here.

## ISO (pronounced Eye-Ess-Oh, not "eyeso.")

I set the default of 200. I set Auto ISO to chose ISOs for me automatically. Auto ISO selects ISOs exactly the same way I would, except that now I don't have to.

Auto ISO increases the ISO automatically as it gets dark so I don't have to. It shoots at ISO 200 in good light, and in lower light starts ramping it up to a maximum of 6,400. Only if it gets still darker will it let the shutter speed go below a preset speed. We'll set this slowest speed and maximum ISO to fit our tastes later in the Shooting Menu.

## White Balance (WB)

I use AUTO and a clear UV filter to protect my lens. I prefer warmer images, so I set it towards Amber by pressing the WB button and spinning the front dial to taste. A6 is a lot of amber, 0 is neutral, and if you want cooler, B6 is much bluer. I usually run A3, but I'll use A6 in shade. It's not magic; just look at your picture on the LCD and adjust to taste.

See examples of different settings here and details on my White Balance page. White balance is how you set the color balance, and color is critical.

## Picture Controls

This is how you get your choice of wild colors or creamy skin tones. I have a whole page about this at Nikon Picture Controls. They work the same way for the D300, D700 and D3.

Picture Controls are how you set your D700 to give you the pictures you want right out of your camera. Learn these, and you'll never have to waste your day screwing around with raw files.

## Autofocus

I have an entire page on How to Set the Nikon D700's Autofocus Controls.

## Metering

I have used Matrix for everything since I got my first Nikon FA back in 1992.

You set this on the rotary switch just to the right of the viewfinder window. Matrix is the middle position that looks like a rectangle with a dot in the middle. I discuss the other modes on the Rear Controls page.

I use the Exposure Compensation control if I need to lighten or darken the pictures. See my Exposure page for details on getting perfect exposures.

## Nikon D700 Lens Settings

Many lenses have no switches or settings. If so, don't worry.

If the switch says "M/A - M " then use M/A. This gives autofocus, and if I grab the focus ring it instantly lets me make manual corrections. As soon as I tap the shutter button again I get autofocus. This M/A setting, if the lens has it, provides both kinds of focus without ever having to move any switches. It's the best.

Older lenses may have an "A - M" switch. Leave those at "A." To get manual focus you must move the switch on the lens, and/or the switch on the camera. It's not automatic. Different lenses require different settings on the camera and lens to get manual. Some, like the old 300mm f/4 AF, required moving both the camera and lens switches! That was a pain.

Non-G lenses will have an aperture ring on the base of the lens where it's attached to the camera. Set this this ring to the smallest aperture (largest number), usually in orange and 16, 22 or 32. There usually is a lock to keep this ring set there, since if it comes off that setting you'll get an error message (fEE) from most cameras.

## Nikon D700 Front Controls



### Depth-of-Field Preview Button

The preview button lies naturally under your middle finger.

Tap this to stop the diaphragm down to the taking aperture. The viewfinder gets darker, but look carefully and you can see what's in focus or not. This is a legacy feature from film days. Today most people look at the LCD playback.

You can program this button do other things as explained in Custom Functions.

### FUNCTION Button

The Function (Fn) button lies naturally under your ring finger.

I program this trick button for many different things depending on what I'm doing.

This button is programmed as explained in Custom Functions.



### Flash Pop-Up Button

This is an unmarked bumpy black button on the top right of the viewfinder as seen from the front.

Press it to pop up the flash.

### Flash Bolt +/- Button (right side of flash hump as seen from front)

This sets the flash sync mode and the brightness of the flash. Flash brightness is more formally called "flash exposure compensation."

Press and hold the flash button and turn the front dial to change the flash exposure compensation. This sets the brightness of the flash. + makes the flash brighter, - makes it dimmer. This setting only changes the brightness of the flash. It leaves the background (ambient) exposure alone. Set it to - if your subjects are getting washed out. If you run out of flash power beyond 10 to 20 feet, then setting it to + can't make the flash any brighter.

If you set flash exposure compensation to anything other than zero, you'll see a little "+/- bolt" icon in the finder and on the top LCD. This resets when you do a green reset.

Press and hold the flash button and turn the rear dial to change the flash sync mode. You'll see the mode shown on the top LCD in the box with the bolt.

### Flash Sync Modes

Select these by holding down the flash button on the side of the flash hump and spinning the rear dial. Your selection is shown on the top LCD in the box with the bolt.

#### Normal (blank on the top LCD)

This is the default position.

In Program and A exposure modes, the shutter won't stay open longer than about 1/60 second.

You can change this 1/60 minimum speed in Custom Setting Menu option e2, which defaults to 1/60 second. I have mine set to 1/30. Set a longer time, like 1/8, to allow more ambient light in the photo and prevent inky black backgrounds. Set it shorter to prevent subject motion blur.

This is brilliant! In the old days we'd have to use Manual exposure to set this to a reasonable number like 1/8. The problem with using the slow mode, explained below, is that in dark locations the shutter may stay open a stupidly long time and ruin the shot. This Custom Setting lets you have the camera adjust itself automatically and stop at the longest time with which you feel comfortable.

I usually use Normal mode, since if I don't I can get some scary long exposures if I'm not expecting them in the dark.

#### Red-Eye (eyeball icon)

I never use this. It shines an obnoxious light in your subject's eyes for a couple of seconds and then releases the shutter after you've already missed the picture. Use this only if you have some people you want to get rid of at a party.

**Warning:** If I set the Red Eye mode by accident it bugs the heck out

of me, because the camera doesn't go off until several seconds after I've pressed the shutter, but I've set no self timer! It doesn't do much to reduce red-eye anyway. Skip this mode. You won't know you've set it, since there is no in-camera indication. If for some reason the shutter seems to have a weird delay, check this!

### **SLOW** (called SLOW on the top LCD)

This mode lets the shutter stay open as long as it needs to so dim ambient light can expose properly with flash. These exposure times can get stupid long, in which case you want to use the setting I covered under Normal.

In daylight, SLOW is the same as NORMAL, since exposure times are short. SLOW unlocks the camera in P and A exposure modes to make exposures as long as it wants to in dim light.

Have a look at most issues of National Geographic and you'll see many indoor shots made in this mode. The background exposes correctly, people may be blurred, and a burst of flash freezes them along with the blurry ghost images.

Normal and SLOW do the same thing in S and M exposure modes, since you or the camera may select any shutter speed in these modes regardless of flash sync.

The default apertures and shutter speeds are unchanged in Program mode, unlike in the D70.

### **Red-Eye SLOW** (eye and SLOW icon)

This is the SLOW mode and red-eye. I don't use it for the same reason I don't use Redeye mode.

### **REAR** (called REAR on the top LCD)

When you're shooting with flash and long exposures, this makes the blur come from behind moving subjects.

Normally the flash goes off the instant the shutter opens. This makes sense, but looks stupid if you have motion blur because the blurs will be in front of the moving subject. Select REAR mode to have the flash go off as the shutter closes. Now you'll have motion blurring from behind the frozen flash image, which looks great.

Another reason to select REAR is because people presume photos are made the instant a flash fires, then they leave. This wreaks havoc with long exposures, since people will leave at the beginning of the exposure! Use the REAR mode and the flash doesn't go off until the end of the exposure. You'll also want to select flash lock to eliminate the preflash. Read about programming the FUNC button to do that here.

REAR doesn't do anything with short exposures. REAR also engages SLOW, but SLOW doesn't light up on the LCD until you take your finger off the flash mode button.

**Trick Flash Exposure Lock Mode:** You can set your FUNC button in the Custom Menus here to lock flash exposure and eliminate preflashes which make people blink.

## **Focus Mode Switch**

See my complete Guide to Setting the D700's AF System.



© KenRockwell.com

## **Studio Flash Connector**

Pop open the tethered rubber cover to connect a PC cord from your professional flash system to your D700.

PC stands for Prontor Compur, a popular German shutter back in the 1930s who invented this connector. The PC connector has nothing to do with personal computers.

## **Idiotic Remote Terminal Connector**

Pop open the tethered rubber cover to connect one of Nikon's expensive electronic remote controls, like the \$55 MC-30 and \$130 MC-36.

Since Nikon overprices these, you can buy counterfeits cheap, but honestly, the release you buy today will last you far longer than any digital camera. I still use the one I bought back in the 1990s before the practical DSLR was even invented. These work on just about all motorized Nikon film and digital cameras.

Sorry, but the D700 won't work with the superb pocket-sized \$17 ML-L3 wireless cable release, as the cheaper cameras can. Since Nikon knows you're a big spender with the D700, you'll have to buy the clumsy \$175 ML-3 wireless release system.

Nikon doesn't bother to thread the shutter release, so you have to buy one of these gizmos instead of a standard \$6 cable release on a tripod.

## **Lens release**

Push this button and turn the lens to remove it. It locks automatically when you attach and rotate a lens.

## Nikon D700 top controls



© KenRockwell.com

**The Three Kings: WB, QUAL and ISO:** Hold any of them and spin the control knobs to adjust. In detail:

### White Balance (WB)

**This is critical to getting the photos you want right out of your D700.**

Spin the rear knob for broad changes. Spin the front knob to fine tune. See my White Balance Examples page and my White Balance page for the specifics of each setting.

Here is a run down of the individual settings from left to right, as shown along the bottom of the top LCD and as set with the rear dial:

#### Auto (A)

I use this all the time. It makes its best guess for WB. It's usually very good. Indoor tungsten can be too orange unless you have some bright tungsten light also in the image. If you do, it removes the orange and compensates completely. If not, the D700 only partly compensates and you have a nice warm image instead.

**Tungsten** (hanging light bulb icon that's easy to confuse with the sun)

This makes the picture very blue. Use this only for deliberate freezing Arctic effects, or under conventional tungsten light bulbs.

**Fluorescent** (glowing tube icon)

Used to make crappy fluorescent light look less crappy. These settings rarely work; use the preset setting below for better results.

**Direct Sunlight** (smiling sun icon)

Use this outdoors with sun shining directly on the subject.

**Flash** (lightning bolt icon)

I never use this. It's almost the same as direct sun. I'm told it's really for studio strobes. Since the Auto mode compensates magically for flash if you use it on-camera. The reason to use this is if you use a different trim value for your strobes than you do for sunlight. I'll get

to trims in a bit.

**Cloudy** (cloud icon)

Warmer (more orange) than the sunlight position. I use this in shade, too.

**Shade** (house casting a shadow icon)

**Very warm.** Adds orange to your photo. Use this for sunset shots, or shots in open shade lit by the sky.

**Continuously Variable (K)**

This setting lets you choose any amount of blue or orange. Once you select "K" you choose the value, from 2,500 to 10,000, with the front knob while holding WB. The calibrations are abstract in what we scientists call (degrees) Kelvin. More degrees look warmer. There are no rules in real-world photography: use whatever setting looks best to you.

2,500 K is very, very blue. I'll use something around 2,650 K in dim home lighting to get neutral results. 3,200 K is the same as the tungsten setting above. 5,400 K is the same as direct sun above. I'll use something around 4,000 K indoors with a mixture of sun and tungsten light. 10,000 K is very, very orange. The shade setting is similar to 7,500 K, and 10,000 K is the warmest (most orange).

**Preset (PRE)**

You use this setting with a white or gray card to get perfect color matching. The D700 can recall five settings: just hold "WB" and spin the front knob after choosing PRE with the rear knob. You need to use menus, explained later, to save the five settings.

I never use an actual card. I always grab a napkin, t-shirt, back of a menu or other piece of white. Black text makes no difference, so long as the background is white. If you choose a bluish piece of paper (like a glossy printed piece), your results will be warmer (more orange), and if you use a more orange piece of paper (like a cheap paper napkin), your results will be more blue.

To set your white balance to something white:

- 1.) Ensure your card or other neutral object is in the same sort of light as your subject. Changing the angle of the object often will favor one kind of a light or another in mixed light, which will greatly affect your result.
- 2.) Hold WB and spin the rear dial to get to PRE.
- 3.) Release WB.
- 4.) Press and hold WB again for a few seconds.
- 5.) PRE starts to blink.
- 6.) Release the WB button.
- 7.) Point your D700 at the card and press the shutter.
- 8.) If the display flashes "good" you're set.
- 9.) If the display flashes "ng" then repeat from step 4.)

The D700 stores this as value d-0. You can save five different values using the menus, numbered d-0 through d-4. d-0 is always the value you just saved. You can recall the other saved values by holding WB

and spinning the front knob. Thank God you can recall them without menus. The menus (explained later) are only for storing, sorting and managing these. I have mine set to 1.) indoors under crummy residential light, 2.) the screen of my laptop computer, 3.) mercury street lights and 4.) a cloudy day. I'm sure you will be more inventive.

## White Balance Trims (fine tuning)

**These are critical to getting the photos you want right out of your D700.**

I rarely get what I want as set above, and usually need to set my image slightly warmer (more orange or amber (A)).

This is easy, but often overlooked by beginners. All you need to do is look at the image you just made on the LCD. Like it? You're done. Too cool (blue)? Then hold WB and move the front dial a couple of clicks to about A3 and try again. The more A you add, like A5 or A6, makes the image more orange, and the more blue you add, like B4 or B6, makes it bluer.

Easy! Do this and all your photos will be bang-on and you can stop wasting your time waiting for raw images to process.

## QUALity • (also has a green dot)

The green dot is used with the other green dot button to reset most of the common shooting parameters. I explained that back on page one.

QUALity sets the file format and compression levels.

Hold it and turn the rear dial to choose the kind of file (JPG, TIFF or raw), and the level of JPG compression. Keep spinning the dial, and you can record raw at the same time as JPG.

Hold and turn the front dial to change JPG and TIF image size in pixels.

I use Large or Medium and JPG BASIC.

The D700 has enough resolution for great 20x30" (50x75cm) prints. Even the Medium setting has plenty of resolution for great 12 x 18" (30x50cm) prints, so I usually shoot in Medium unless I plan to be making huge enlargements.

As I explain on page one, I chose JPG Optimal Quality, and then Basic. This gives me great quality at the smallest possible file size.

Why do I worry about file size? Simple: I shoot a lot, and I bloated files waste time and money in transfer, backup and storage. Try it: shoot the same thing at several settings, and you won't be able to see the difference. See this on my D200.

## ISO (pronounced Eye-Ess-Oh, not "eyeso.")

Hold this and spin the rear dial to change ISO. Default is 1/3 stop steps. I prefer to change ISO in more meaningful full stops as you can set in a menu here.

**Firmware Flaw:** ISO goes from 100 to 25,600. Above ISO 6,400 Nikon uses bizarre terminology to scare amateurs away from setting these ISOs because these same amateurs would clog up Nikon's (800) NIKON-UX support lines complaining about grain. Nikon calls ISO 12,800 "H+1.0," and ISO 25,600 "H+2.0." Likewise, ISO 100 is called "L-1.0."

**Hint:** Since ISO is displayed in the finder, you can set this without taking your eye from the finder.

**Hint:** If you've selected Auto ISO, then you cannot set a manual ISO higher than you allow in Auto ISO. To get weird ISOs like ISO 12,600 (H+1.0), you must turn off Auto ISO.

## Advance Mode Dial (S, CL, CH, [Lv], clock and Mup)

This doesn't turn unless you press the release button just above it to the left.

This sets the frame advance rate, Live View, the self timer, and the mirror lock up. It's just under the WB QUAL ISO buttons.

### S: Single Frame

One frame for each press of the shutter button.

### CL: Continuous Low

I always use this setting. Press the shutter once and you get one photo. Hold it down and the D700 takes pictures continuously at 3 FPS. You can set this in CFN d4 to be anything from 1 to 7 FPS. 3 FPS is default, and where I leave mine.

If I need one shot I get one shot. If the light is dim and I want a few shots to ensure I get a sharp one, I hold the release down and make several from which I'll pick the sharpest.

### CH: Continuous High

The D700 runs at 5FPS as long as you hold the shutter, or 8FPS if you use the macho-man grip. I don't use CH because it's so fast that I often get 2 shots where one will do.

### [Lv] (Live View)

Unlike Canon, it's easy to use Live View. Set this and press the shutter. Press the shutter again to get out of Live View. I'll explain the various Live View options under the Shooting Menu.

### Self Timer (clock icon)

Press the shutter and the D700 takes a picture some seconds afterwards. We can set the delay in CFN c3.

### Mup (Mirror Up)

Press the shutter and the mirror flips up. Nothing happens until you press the shutter again, at which time the picture is taken and the mirror flips back down.

**Note 1:** The Self Timer and Mirror Up modes are defective in design. If you forget to set either back to the other modes (I always forget) you'll still be in these weird modes tomorrow! Worse, the Mirror up mode is still stupid, since you need to buy a \$100 cable release to release the shutter after the mirror goes up.

The correct design for these two functions, as done on the Mamiya 7, is to add a dedicated self timer button. Press this button and the shutter fires several seconds later. On an SLR the correct implementation is to have the mirror flip up at the beginning of the self timer interval. You'd get sharper pictures, not have to screw with screwing and unscrewing expensive electronic cable releases, not have to remember a cable release, and not miss tomorrow's shots because you forgot and left the D700 selector in last night's position.

**Note 2:** If you have no cable release, you can use the Mup mode and wait 30 seconds. 30 seconds after you press the shutter, the mirror flips up the D700 fires the shutter anyway.

**Note 3:** At default, the D700 needs perfect locked focus to take a picture in S mode, and locked focus to start the Mirror Up or self timer modes. If you don't have perfect focus, the D700 ignores you in these modes. Sometimes bad lenses may not be sharp enough

to get good enough focus to let the D700 take a picture in these modes, especially with other than the center AF sensor. You can set the D700 to shoot even if it's not in perfect focus here.

By default, the D700 takes pictures whether or not it's in focus in the AF-C modes.

### Power Switch (right side)

Tap it past ON to turn on the LCD illuminator and the meter.

There's no need to turn OFF the D700 except to prevent accidental operation when squashed in a camera bag. The D700 turns off by itself after a few seconds of ignoring it. The only thing the OFF position does is act as a lock against unintended operation.

One of the most outstanding features of the D700 is the little custom menu item that lets you have the D700 turn on the big rear LCD in its INFO mode whenever you spin this to the Illuminate position.

### Exposure Mode Button (MODE, right side)

Hold it and spin the rear dial to select among P, S, A and M exposure modes.

### P: Program

I use "P" for program auto exposure. In this mode the camera chooses the f/stop and shutter speed for you. If I want different apertures or shutter speeds I rotate the rear command dial, which selects alternate combinations of f/stops and shutter speeds which give the same exposure. Nikon calls this "Program Shift." An asterisk (\*) shows up next to the P on the top LCD to let you know you've chosen a different combination for exposure. The asterisk doesn't appear in the finder, but you can see the apertures and shutter speeds. The asterisk goes away when you return to the standard combinations. The standard combinations are f/1.4 @ 1/8, f/2 @ 1/15, f/2.8 @ 1/30, f/4 @ 1/60, f/5.6 @ 1/125, f/8 @ 1/250, f/11 @ 1/500, etc.

An easy way to return to these standard combinations is to flip to a different mode and back to P, or turn the D700 off and back on.

### A, S and M Modes

If you want to use a fixed aperture or shutter speed, then use S or A mode and the camera will automatically pick the other value.

If you want to set both the hard way, use M, manual, mode.

In these three modes you select the aperture with the front dial and the shutter speed with the rear dial. You can reverse which dial does what in the Custom Setting: Controls Menu. Of course in A or S mode you can't set one of the two values because the camera is setting one for you.

### A Mode: Aperture Priority

In A mode you choose the Aperture and the D700 chooses the shutter speed.

### S Mode: Shutter Priority

In S mode you set the Shutter and the D700 sets the aperture.

If the D700 runs out of good apertures you easily can get under or over exposure in S mode: watch that the D700 can select a correct aperture for your lighting.

### M Mode: Manual

You set everything the hard way. Look at the LCD to check exposure. You can use the bar graph in the finder, but why? If you wanted to do that, use another mode and let the D700 do the setting for you.

**Hint and Firmware Defect:** AUTO ISO doesn't deactivate in Manual mode. I always turn off AUTO ISO when I enter Manual Mode.

**Hint:** You can see P, S, A and M displayed in the finder, so you can adjust them without taking your eye from the finder.

### FORMAT (combined with MODE button)

Hold this along with its brother on the back left rear of the camera (combined with the trash button). You'll get a blinking "For" on the top LCD. Release and hold both of these again and you'll completely reformat your memory card.

Professionals reformat a card each and every time a card is put in the camera. This is because files and folder structures are sometimes messed up or changed when read with a card reader or used in any other camera. Professionals prefer to be safe than sorry. We don't use cards to archive previous photos. One time I kept saving my winner shots on a card by simply erasing the rest each time. After a few months I started to get errors. These went away as soon as I reformatted the card. Reformatting completely renovates the card. Erasing does not, and may leave the potential for errors.

### Exposure Compensation Button • (+/- and a green dot)

**This is the most important control on this or any camera.**

Hold the button and spin the rear dial. + makes the next picture you take brighter, and - makes it darker. If your photo is too dark or light, just change the setting and try again. This is easy!

Remember to set it back to zero when you're done. If you don't, you'll see a "+/-" in the viewfinder and the top LCD.

See more at How to Set Exposure. Ignore Nikon when they suggest you don't use this with Matrix Metering; I do it all the time.

The green dot means if you hold it and the QUAL button down for a few seconds the D700 returns to it's default settings as I explained on page one. This clears any compensation values and other crazy things you may have set yesterday.

**Hint:** You can see the + or minus value displayed in the finder as well as the top LCD, so you can adjust this without taking your eye from the finder. The two displays only read the value when the button is held, otherwise those digits read exposures remaining.

**Hint:** This changes the setting for the next photos you take. It doesn't change any photos you've already made.

## Nikon D700 Rear controls



© KenRockwell.com

From left to right, top to bottom:

### Play [•••] Button

Press it to see your pictures. Press again to turn them off.

There are a lot of trick play modes, like zooming all the way in with the center control button and being able to scroll around with the dials.

My favorites are explained under the settings for the rear thumb-switch and the Command Dials.

### Trash (also doubles as one of the two **FORMAT** buttons)

With an image on the LCD, press once. You'll get an "Are you sure?" message. Press again and the shot's gone. The D700 ignores this button if it's not playing back.

Hold this along with its brother (the MODE button) to format a memory card as I explained on the previous page.

### MENU

This gets you inside your D700.

I'll cover what you can screw up with this in the 11 long pages that follow.

### Key/?

**In Playback:** It protects (locks) the image from erasure.

Warning 1.): it marks the file so well that it won't empty out of my trash on my computer unless I go in and remark the file on my computer first!

Warning 2.): these images are erased from your memory card when you format anyway. Now you see why I don't use the lock feature.

**In Menus:** Press for more information about whatever you're setting.

### Checkerboard (-)

**Playback Only:** Tap it to select one, four or nine shots up at once. If zoomed, tap it to reduce the zoom.

**Trick:** When you have 4 or 9 images up, spin the front knob to flip more quickly between rows of images, presuming you've turned this on in custom setting f9.

### Magnifying Glass (+)

**Playback:** Press to zoom in. You can use the thumb switch to scroll around the image. I prefer to set a trick mode explained here to zoom in a lot more by pressing the center of the thumb navigation button.

### OK

**While in the menus:** takes action on what you've set.

**While playing back:** calls up the Retouch menu.

### Finder Blind

The finder blind is the little lever just above and to the left of the eyepiece.

Flick it left to close a shutter to prevent light from leaking into the finder.

You'll want to do this if you're shooting without your eye on the finder. If you take your eye away, light could get in this back door and cause the meter to underexpose your pictures.

If you close it, you won't be able to see through the finder until you flick it to the right to open it.

### AE-L AF-L (Top center)

Hold this to lock settings while shooting. You alter what this button does in the Custom Setting Menu f7.

### Meter Mode Selector

This is the rotary switch wrapped around the AE-L AF-L button, just to the right of the finder window.

It has three positions: Spot, the dot on the left, Matrix, the rectangle in the middle, and Center Weighted, the circle on the right.

I always use Matrix, the center rectangle. Matrix is a magic system which really figures out what you're shooting, even if it's very dark or very bright and white, and just gives the correct exposure. It sees in color, sees depth, it sees in over 1,000 places in the finder, and has an astounding amount of perception in getting exactly the exposure I want. Even with Nikon's first Matrix meter in the FA of 1983, I could point the camera at anything, even right into the sun, and always get perfect exposures.



**Mono Lake  
Sunrise, Mono Lake.**

I shot this with a Nikon FA, 600mm f/5.6 ED Nikkor AI-s, Matrix Meter, Program Auto exposure and Fuji Velvia. I just pointed and

shot; the Matrix meter does the exposure calculations so I can pay attention to the composition.

The meter in the D700 is many times better.

I never use center weighted (on the right), and I certainly never use spot (on the left). With the Matrix meter, just shoot. It's smart enough to do all the compensation and locking that you used to have to do in the older modes.

The other positions are left-overs from earlier decades. They are blind to color, blind to absolute luminance, blind to distance, and blind to relative position in the frame. Matrix sees in many dimensions at once, while these blind old meters see in only one dimension. The Center-Weighted (CW) meter was Nikon's most popular meter in the 1960s and 1970s, and the Spot meter is left over from the 1980s.

The CW meter was useful in its day because it measured just the right area of the finder so you could point the camera at the main subject, set a manual exposure, recompose, and shoot. Unless the subject just happened to be the right tone, you'd always have to use exposure compensation for light and dark subjects. In the 1970s, AE cameras had AE locks, so you'd point, meter, lock, recompose, and shoot. What a pain!

The Spot meter sees only a small spot in the finder. It requires knowing the Zone System to use well, since few scenes actually have any tones at exactly Zone V from which to spot meter. See How to Use the Nikon Spot Meter.

I ought to weld my selector switch somehow, since sometimes it can get knocked off Matrix. No big deal; I just feel stupid when I start getting bad results and take a while to notice the switch got knocked. Nikon's pro cameras like today's F6 and D3 have locks on the switch for just this reason.

## AF-ON

Focuses the lens, but doesn't take a picture.

This button is helpful if you disable the AF from activating when you press the D700's shutter in CSM a5. If you do, then you can focus with this button, and have an AF lock when you release it. I'd rather it was a self-timer, but Nikon didn't ask me about this one.

## Big Thumb Button



### The Nikon D700's Big Thumb Button.

This is used for everything: menu navigation, selecting AF areas, scrolling through playback images and a whole lot more.

You can configure this button in custom settings f2, f3 and f4.

I set mine to zoom way into an image when pressed in the center.

Trick: If you set a center push to zoom on playback, you can spin the rear dial to move to different images at the same position and zoom! This makes it easy to pick out the sharpest image. Unfortunately as soon as you hit the delete key it goes back to unmagnified, sort of making this less useful for in-camera selection and deletion.

## L - • (around Big Thumb Button)

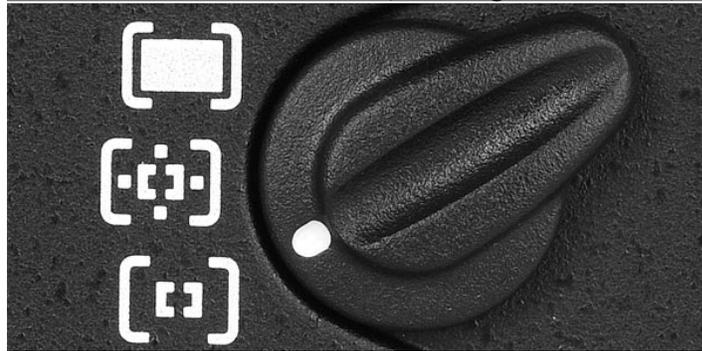
This is an electronic lock.

It's smart: it only locks the AF selection.

It doesn't lock you from anything else.

Because of this, if you can't select AF areas, check it because it can get knocked. Even in L you can still do everything except select AF areas.

## AF Area Mode Selector (below Big Thumb Button)



## Focus Area Mode Selector Switch

This lets you choose how the D700's brilliant AF system uses all its sensors. This switch is important for switching from shooting static subjects to action. I explain this on an entire page on How to Use the D700 Autofocus System.

## INFO button (below AF Area Mode Selector)



## INFO Button.

This tiny button is one of the D700's biggest features.

Hit it once and the rear LCD immediately lights up with everything you might want to know about what's going on. This isn't a big deal, because I prefer to program my illuminator (power) switch to do the same thing. I can hit my illuminator button faster with my trigger finger than I can hit the INFO button with my thumb.

The innovative part is if you hit the INFO button twice. Now you can set anything you read along the two lines at the bottom with just one hand. You can adjust: **SHOOT Bank, High ISO NR, ADR, Color Space, Set Preview button, CUSTOM Bank, LT NR, Picture Control, Set AE-L/AF-L button, Set FUNC button**

Having programmed my illuminator (power) switch to call up the INFO screen, a second tap of the illuminator button turns it off. It doesn't let me adjust the bottom items.

If I tap my illuminator button and then hit INFO once, it lets me adjust these items. For someone like yourself who now knows what these all do, you'll find it extremely helpful having this option to get to these.

I never touch High ISO NR, LT NR, ADR or Color Space, which are specialized adjustments. I adjust set everything else continuously as I work, so this trick is a Godsend.

# Nikon D700 Playback Menu

## How to Get Here

Press MENU, click to the left and then up to select the top “[ ]” (play) icon. You'll then see PLAYBACK MENU on the top of the color LCD.

## What it Does

It sets various playback options, including what data you see on playback.

## What I Change

I activate the color histograms, the data, and set the image to show after every shot.

## Delete

This is helpful if you want to delete all images while saving those for which you pressed the “? / Key” button to lock. I don't use this. I do all my editing and selection in my computer and I do my in-camera deletions one-by-one with the trash can key.

## Playback Folder

The camera can record and play to and from from different folders.

**ND700** plays all the shots made on the D700, but ignores shots made on other cameras. You shouldn't be using cards with data from other cameras since that might lead to errors. Always format a card anytime it's put into a camera.

**All** shows you everything on the card. I leave my D700 set to ALL.

**Current** ignores photos in folders other than the one to which you're recording. If you create new folders for different scenes as you shoot, you won't see the other shots on the card!

## Hide Image

This is used to hide embarrassing photos of your friends from playing back before you get to download them. The images are on the D700, however when marked this way they will be skipped on playback just as if you deleted them.

Move the cursor left and right to select images, press the center to mark as Hide or Unhide, and press ENTER to save. Now the camera won't play these images, even though it still tallies them in it's counter on the top right that reads “34/284.” You can detect a hidden image because this counter will skip.

## Display Mode

This lets you select which data screens come up in rotation when you look at each image. By default, these are all OFF. You can choose or refuse:

## Basic Photo Info

**Focus Point:** This shows which focus areas were active. It shows the area you set, or the area(s) chosen by the D700 in it's clever dynamic modes. It shows them as little red rectangles on the LCD as you play back. It only shows them for some modes, not all of them.

## Detailed Photo Info

**Highlights:** Relatively useless, this only reads one channel at a time. Unfortunately the “RGB” selection is defective because it's reading only the luma channel, a single channel which is a mixture of some red, a lot of green and almost no blue. It's not reading what it should, which is any peak in any of these three channels independently. That would take more computing power than Nikon chose to devote to it, or possibly Nikon's engineers haven't figured this out yet (I used to earn my living 15 years ago teaching digital imaging gear makers these finer points). You can blow out your reds, blues or anything other than gray or green and never notice. You can select which channel to read while in the RGB histogram page. If you work at Nikon I'd love to help you get this right: just ask me.

**RGB histogram:** Yes, use this! See my Color Histogram page.

**Data:** this is three pages of f/stop, white balance, etc. I also use this.

## Image Review

This sets the LCD to show each image after you shot it. Nikon hid this well!

It defaults to OFF to save the battery and annoy people.

I leave mine ON; the whole point of having a digital camera.

## After Delete

This is an odd one. You may choose to see the next or the previous image after you delete one. The third choice, “continue” keeps going in the same direction as you were going.

I leave this alone, at its Next default.

## Rotate Tall

Who translates these? I leave this off.

If you set it ON, your vertical shots, if shot with Auto Rotate ON, will playback as tiny little vertical images. Luckily the D700 is smart enough to magnify using the whole screen if you choose this mode.

The D700 is not smart enough to use the rotation sensor during playback. Canon's point-and-shoots are. Many Canon point-and-shoots expand these images to full screen if you rotate the camera during playback! The D700 doesn't.

I don't use Rotate Tall.

## Slide Show

This must be hot in Japan. It lets you amaze your friends with an exciting slide show on the tiny screen.

I don't bother with this.

The best use of this is with an HDTV and the HDMI outputs. You could plug the D300 into a TV, HDTV or video projector with the conventional video output, but the conventional video resolution output is so bad everything will look awful.

## Print Set (DPOF)

I never use this.

This lets you mark images for printing if you sorted and then printed directly from your D700, and had a lab which could read this data.

# Nikon D700 Shooting (Film) Menu

## How to Get There

Press MENU, click left and then up and down to select the camera (shooting) menu. You'll then see "SHOOTING MENU" on the top of the screen.

## What it Sets

It sets parameters related to what film used to do. The Shooting Menu sets ISO, grain, contrast, color and a zillion other critical things that set the look of your images.

The shooting menu would make more sense if it were called the Film menu, since many other menus also affect shooting.

## What I Change

I change a lot here. This is where I make the D700 give me the wild colors I love.

## Clarification and Complaints

Nikon let the people who wrote the instruction manual design the menus.

A more sensible icon would have been a piece of film since the Custom Setting Menu (pencil menu) has more to do with shooting and camera mechanical settings than the Shooting Menu does.

Don't worry about what's in what menu. It doesn't make complete sense and you'll forget where things are, but that's why there's the My Menu menu. It's not you, it's the camera.

## Shooting Menu Bank (A, B, C and D)

Menu banks seem like memories, but they aren't. You can't save or recall them. All they do is return you the settings you had when you last changed to another one.

For instance, if you change things in A, and go to B, you'll be in whatever settings you last had when you were in B. If you change some things and go back to A, you'll be back where you were when you left A. If you go back to B, you'll be where you were when you last left B.

There is no way to lock or save these. The best way to deal with them is consciously make an effort to shift into each as you enter an assignment to which they apply, and deliberately change out of them when you're done that assignment.

For instance, I use my A bank for normal shooting, and my B bank in my studio. When I walk into the studio, I deliberately shift to B, When I walk out, I always try to remember to shift back to A. If I forget, I'll start changing settings in the wrong bank!

These would make more sense if they were called "Film Settings" instead of Shooting Settings. Don't complain to me, but these Shooting Menu Banks don't store everything I'd like them to. They aren't Shooting Settings; they are Film settings. Drive and focus modes aren't remembered with them.

You have four memory positions: A, B, C, and D. Nikon was stupid enough to use the same names, A, B, C and D, instead of 1, 2, 3, and 4, for the Custom Setting Menu Banks! These confuse me, and I have an engineering degree for these things.

You can add a name to each one. I set my A bank for normal opera-

tion with the settings I described on page one, and don't name it.

I set my second bank, B, to what I use in my studio. I name it STUDIO.

I set my third, C, for comparing lenses. I call it COMPARISON. I also use this if shooting for time lapse or stitching. I deactivated the default automatic contrast, automatic white balance, automatic dynamic range and auto everything so that these wouldn't change between shots. Don't use this for normal photography - you want the D700 to adjust these for you.

Want to know what bank you used to make a shot? Each bank recalls your file naming convention, so you can use different file names for each bank.

## How to Recall a Setting

Easy: MENU → SHOOTING MENU → Shooting Menu Bank → (select one) → OK.

Easier: Tap the INFO Button twice.

You'll see SHOOT and A, B, C or D on the top LCD, and on the read LCD if you tap INFO.

## How to Save a Setting

You can't save or lock any of these settings. This is a design defect and confused me at first.

The D700 continuously alters whichever Shooting Menu Bank is selected. Choose a different Menu Bank and you're changing that Menu Bank as you're shooting.

Menu Banks are confusing because all they do is return you to where you were when you last left them.

If you haven't selected a bank, the D700 defaults to Shooting Menu Bank A. You see that on the top LCD as "SHOOT A."

As you tweak settings, these are updated for the currently selected Shooting Menu Bank.

If you choose Shooting Menu Bank B, the settings for A are saved until you select Bank A again. Bank B is then modified as you work the camera.

When you switch to a different Menu Bank, the D700 recalls whatever settings you had when you left that Menu Bank for a different one.

This is retarded, but it's the way the D700 works. I only figured this out by having to explain it. This is why my settings were always changing all by themselves. If you are using a bank and change your WB, you just changed that bank. Sorry. If you change a setting and then realized you were in the wrong bank, sorry again. You just screwed up the wrong bank. There is no "back" button.

If you want to reset a bank to its defaults, select it, then use the next menu item to reset it.

I suggest Nikon fix this by treating these Menu Banks as they treat preset White Balances. They should have one Bank which changes as you shoot, as they all do today. The other banks should be memory locations which only change if you save to them deliberately.

## How to Name a Setting

You can save a name for the setting, even if you can't save the setting itself.

Choose MENU → SHOOTING MENU → Shooting Menu Bank → Rename. Select the bank you want to rename. Enter the name, and remember to press OK when done. If you forget to press OK, it forgets the name and you have to start over!

**Hint:** there's no obvious way to delete a character if you make a mistake. Use the Trash button to delete characters.

## Reset Shooting Menu

This resets everything in the selected Shooting Menu Bank (just explained above) to the defaults. You reset only the bank in which you're working.

As soon as you select "Menu Reset" and "Yes" it resets. It doesn't ask "Are you sure?" first. Be careful!

Play with everything to your heart's content, since if you do screw anything up this reset will fix it. Choose a bank you don't use and you won't change the bank you do use.

## Active Folder

You can create, name and rename folders on your CF card. They are named with a 3-digit number from 100 through 999.

**New Folder Number** is self explanatory. Choose a number, which creates a new folder, and go.

**Select Folder** selects the folder into which new photos are put. You use this to record images into a previous folder.

You might want to use Select Folder if you shot one event or subject, went on to a second and made a new folder for it, and then returned to the previous subject.

## File Naming

Fun! You can choose the first three letters or numbers which will be used to name all of your files! I use KEN, or 700 for my D700. If I had four letters I'd use ROCK.

You can select different letters for each Shooting Menu Bank, making it easy to swap among four sets of letters. Maybe you share a camera and want to know which shots you made.

The D700 always begins Adobe RGB file names with an underscore. You choose the three letters and the D700 chooses where they go.

Tip: You can't delete as you enter characters. Since you only have three, change a bad one by moving the cursor over it and entering the correct character.

## Image Quality

Image Quality duplicates half of the QUAL button. It chooses JPG, raw or both and the JPG compression level.

Whether you use the QUAL button or this menu you're also changing your Shooting Menu Bank.

See my discussion of the QUAL button for details.

## Image Size

Image Size duplicates the other half of the QUAL button. It chooses the JPG image size in pixels. It does not directly choose the size of the file in bytes.

See my discussion of the QUAL button for details.

## Image Area

Image Area choose what area of the image sensor is used.

Normally the entire FX (24x36mm) sensor is used.

Auto DX Crop lets the D700 automatically use just the smaller central DX area of the sensor when a DX len is used.

Choose image area lets you set this yourself. If you use DX for an FX lens, you get the equivalent of digital zoom. If you choose FX for a DX lens, you will get black or fuzzy corners at some settings.

See also Crop Factor.

## JPEG Compression

This is an important but obscure menu choice. It chooses the algorithm used to generate the JPGs. It works in addition to the BASIC, NORMAL and FINE choices, giving you a total six different JPG settings for every image size.

**Size Priority** is the default. It was the only option in older cameras like the D1X, D50 and D70s. Since it was the only option in those cameras, they had no menu option for it.

JPGs need more data (file size) to maintain quality as the subject's contrast and complexity climbs. A blank sky is easy for a JPG, and a busy tree with a zillion branches requires a much bigger file to retain quality as a JPG.

Size Priority keeps the file size constant regardless of image detail or subject complexity. This is bad because quality will get worse (add artifacts) as detail goes up.

**Optimal Quality** lets the file size grow if needed to maintain quality, and otherwise keeps it smaller. I use only this option.

The Optimal Quality option lets the camera allocate bits intelligently based on the subject, instead of making big files when they aren't needed for flat subjects like blank skies.

Using the Optimal Quality option in BASIC JPG lets the file size grow to the same size as JPG NORMAL if the subject needs it, and lets the file size shrink back to JPG BASIC when it's not.

**Firmware Defect:** Nikon accidentally reversed the two icons! The icon which shows an arrow from above directing all the little identical images to fit next to each other in the same space, which means "same size," is used for Optimal Quality. The icon showing little images of different sizes working together is used for Size Priority. Ignore these icons because they are reversed.

## NEF (RAW) recording

This lets you chose many raw options.

### Type

**Lossless Compressed:** I don't use this, which is the default.

**Compressed.** I use "Compressed." You get full raw quality, range and options, however the file sizes are kept much smaller with no visible loss.

**Uncompressed:** Forget this. You get the same data and image quality as the other options, but with many times the file size. This option exists only for conspiracists who thought Nikon was cheating them when this option wasn't on other cameras. Ask your math professor; you get exactly the same data in Lossless Compressed and exactly the same images and adjustments in Compressed, but with none of the bloat.

### NEF (RAW) Bit Depth

I use 12 bit. I can't see any difference with 14-bit, but 14-bit wastes

my valuable time and file space which I can see.

Bit depth refers only to the precision, not range or accuracy, with which brightness levels are defined. The number of bits is completely unrelated to the brightness range described by these digital values.

JPG is log, not linear, so its 8 bits perfectly render the entire visual range from bright to dark.

NEF is a linear, not log, format. Because the levels (quantization steps) between digital values are the same at bright and dark, we have to use a lot of bits to get enough precision at the dark end. The log nature of JPG means that the q-steps become far finer at the dark end, so 8 bits is plenty.

Since NEF can't tailor the q-steps with brightness, we need to use 12 bits so that we have enough precision in the darks. This leaves us wasting bits at the bright end, where 12 bits gives far more precision than needed.

With 14-bit systems, it helps in the dark end, but is a complete waste at the bright end of the range.

When you select 12-bit, you're still getting 14-bit performance in the dark where you need it. All that changes is that the 12-bit position merely uses a look-up-table to skip between values at the bright end, where we far more precision than needed anyway.

Few photographers have Ph.Ds in mathematics, so they understand none of this, and waste valuable time and disc space by shooting in the more bloated modes like 14-bit, lossless or uncompressed, or shooting raw in the first place.

Photo books are written by laypeople who have forgotten anything past 9th grade math, so they misinterpret this to imply that 14-bit covers a wider range. Nope, it's just more precision where we don't need it.

## White Balance

This duplicates the WB button, and adds even more features.

I use AUTO. See my explanations of the WB settings, my Examples of WB Settings and my page on Setting White Balance.

A huge advantage of Nikon over Canon is that we can set just about everything about WB right on the camera without needing to navigate menus. We still need these menus for some more tricks that few people will need.

## Multiple Fluorescent options

Unlike tungsten lights, fluorescent lights have awful color balance, and each bulb type and brand is completely different than the next.

Once you've selected Florescent, Nikon provides seven different settings for different types of bulbs!

To select among these, just click right once you've selected Fluorescent

**Hint:** These types of bulbs always look awful. I never use these options since they never match the bulb anyway. If I have to shoot under them, I use the PRESET option as described at the WB button.

## Green/Magenta bias

I never use this.

To add or remove a little green or magenta to your photos, simply click right once you've selected any of the WB settings in this menu. You'll get a chart on which you can adjust both green/magenta and amber/blue bias.

The D700 is awesome in that you can set different biases for each

WB setting. Last I tried, a severe limitation of Canon DSLRs is that this adjustment affects every setting. IN other words, the D700 has nine different WB settings, each of which will remember its own G/M and A/B tweak, while with Canon, the one G/M and A/B setting affects them all. Worse, you have to use a menu to set any of this, while on Nikon, the far more important A/B setting is at your fingertips without menus.

## Managing the Preset White Card Settings

Well hidden, you also can set the green/magenta and amber/blue bias for white-card preset WB. Since the front dial selects among the five memorized settings, you have to use the menus even to set A/B bias.

To do this in the menus, MENU → SHOOTING → White balance → PRESET and click right. Select one of them, then hit OK, or hit SELECT (center of Big Thumb Button) and SET.

This is also the menu in which you can save, move and name your various preset white card WBs. This is another big advantage with Nikon: I save these and call them up using only the dials for various difficult conditions, like indoor home lighting. To save and rename, select one and hit the center thumb button.

Each time you hold down the WB button in PRE, get it to blink and press the shutter, you store that value in d-o. To save it, MENU → SHOOTING → White Balance → Preset → (click right) → Select a location (d-1 through d-4) into which you want to store it, press the center of the Big Thumb Button, select Copy d-o, OK. YOU just saved that setting into d-1, d-2, d-3 or d-4, and can call it up with the front dial when you've selected PRE with the rear dial.

You do the same thing to edit the comment (name). If you've shot a blank card, you really do need to add comments, since there's no way the little thumbnail will mean anything.

## Set Picture Control

This is where you set the important things, like contrast and saturation.

It's so important that have a complete page on it. See Picture Controls.

These work the same, and give the same look, among the D3, D700 and D300.

## Manage Picture Control

This is where you save and recall Picture Control settings. I have an entire page about this at Picture Controls.

## Color Space

Don't touch this unless you really know what you're doing and print your own work.

**sRGB** is default. It's the world standard for digital images, printing and the Internet. Use it and you'll get great, accurate colors everywhere, all the time. Like what you see in my Gallery? That's all coming to you in sRGB. Use it and you'll automatically get great, saturated and accurate color everywhere. See Color Management is for Wimps for examples.

sRGB is specified in IEC 61966-2.1, which you may also see when examining color profiles. That gobbledygook means the same thing as sRGB.

**Adobe RGB** should never be used unless you really know what you're doing and do all your printing yourself. If you use Adobe RGB you'll have to remember to convert back to sRGB for sending your

prints out or sharing them on the Internet. Otherwise they look duller than sRGB!

Adobe RGB squeezes colors into a smaller range (makes them duller) before recording them to your file. Special smart software is then needed to expand the colors back to where they should be when opening the file.

If you have the right software to re-expand the colors you theoretically might have a slightly broader range of colors. However, if at any point in the chain you don't have the right software and haven't attached the Adobe RGB profile you'll get the duller colors as recorded!

Web browsers don't have, and print labs rarely have, the right software to read Adobe RGB. This is why people who shoot it are so often disappointed. Even if a place has the right software, if you forget to add the Adobe RGB profiles to your files these places still won't read them correctly and you'll get dull colors.

Adobe RGB may be able to represent a slightly larger range of colors, but no screen or print material I've used can show this broader range, so why cause yourself all the trouble? I've experimented with 100% saturated grads in these two color spaces and never seen any broader range from Adobe RGB either on my screen or on Super-Gloss Light jet prints.

Worse, if you're the sort of vacuum-operating geek who wants to shoot Adobe RGB because you read about it in a magazine article, did you realize that because the colors are compressed into a smaller range that there is more chroma quantization noise when the file is opened again? Ha!

See more at Adobe RGB.

## Active D-Lighting

This is Nikon's mis-naming of the Automatic Dynamic Range Control.

It is a very important part of why the D700's images can look so great.

I always leave it set to AUTO, which magically optimizes highlights and shadows to look great.

Set it to AUTO and forget it.

This is so important that I have a complete ADR page all about it.

The D700 is better than the older D3 and D300 because it has an AUTO mode, in addition to the three Low, Normal and High modes of the earlier cameras.

## Vignette Control

Unless you deliberately turn it OFF, it attempts to reduce dark corners with lenses that get dark in the corners.

It defaults to Normal, where I leave it (except when testing lenses for vignetting).

## Long Exp. NR

This is Long Exposure Dark-Frame Subtraction Noise Reduction

**OFF:** Default. Leave it here.

**ON:** Don't use this. If you do, the D700 will double the amount of time you have to wait around for longer time exposures. The D700 is so good you don't need this. Nikon only includes this because old-timers would get peeved if it was missing.

## High ISO NR (High ISO Noise Reduction)

This lets you control the strength of the noise reduction (smudging) applied at high ISOs.

I find the default NORMal position optimum.

You can set it higher, but it removes subject texture.

You can set it lower and get more noise.

## ISO sensitivity settings

### ISO sensitivity

This duplicates the ISO button. I use ISO 200.

### ISO sensitivity auto control

This is where we set the AUTO ISO feature ON or OFF. Auto ISO magically bumps up the ISO as the light gets weaker, saving you a lot of time since you no longer need to watch your lighting or shutter speeds. Set this and just shoot, from daylight to moonlight.

Auto ISO leaves the ISO alone until the shutter speed would get slower than the Minimum shutter speed set below. If the light (or your camera settings) would cause a slower speed, Auto ISO increases the ISO so the shutter speed remains at the slowest setting below.

Auto ISO keeps increasing the ISO as the light dims until it hits the Maximum sensitivity you've set, after which the shutter speed will be allowed to get longer than what you've set.

**Maximum sensitivity** is the highest ISO that AUTO ISO will use before lowering the shutter speed. ISO 6,400 looks great, so I set ISO 6,400 here.

**Minimum Shutter Speed** should be set to the slowest speed at which you won't get any subject or camera motion. I hope Nikon some day offers automatic tracking of this based on a selectable fraction of lens focal length, but for now, this is one of the settings I change as I change lenses or subjects.

I set 1/80 or 1/100 for people photos. For a 300mm telephoto lens, I might choose 1/250. For a wide angle lens for dim landscapes, I might choose 1/8.

## Live view

Live view lets you set how Lv works.

**Hand-held** lets you press the shutter once for Live View. As you're viewing, jam the shutter all the way down a second time and hold it. The D700 makes a bunch of noise, and gets off one shot. If you only daintily press the shutter when Lv is active, the D700 makes no photo and just pulls you out of Lv.

**Tripod mode** lets you fiddle with precise focus. I'll not try to explain how to use it; press the "?" button on the D700 as you set this and the D700 tells you how to use it.

**Release Mode** is how you select single or continuous shooting, since you had to use that control to select Live view. This is a design flaw; Live view and the self timer should not be on a rotary dial.

## Multiple Exposure

This is silly. It lets you do what we did back on film.

This works and it's easy to use.

Unlike film, it's smart enough to compensate the exposures so they add together without overexposure.

To use it:

- 1.) Choose the number of shots to combine (2 - 10).
- 2.) Hit OK.
- 3.) Go up to DONE.
- 4.) Hit OK. It only works if you remember to scroll up and hit OK.



### Easy example: The Blinds in My Office. (5 exposures.)

You'll see a tiny icon on the top right of the top LCD that looks like two rectangles mating.

Make your shots. You'll see each on the color LCD as you make it. You'll also see the mating rectangle icon on the color LCD.

You'll keep seeing the flashing mating rectangles icon on the top LCD until you complete all the exposures for which you asked in step 1.)

The D700 won't tell you how many you've made until you're done. You can cancel it in the same menu if you want. Choose RESET.

When you've made the last shot the D700 shows it as it did for the other shots for a moment, then goes off and adds them all together. After the CF light blinks a few times you'll see the composite image on the color LCD. The intermediate single images are not saved.

It works with JPGs and NEFs.

Don't turn off the automatic exposure compensation, called Auto Gain. If you do you'll get at least a stop of overexposure.

## Interval timer shooting (intervalometer)

This works and it's fun. This lets you set the D700 to fire automatically at preset intervals.

The D700 is better than a video security camera because it has so much more resolution. You can point this outside, cover a wide angle and have more than enough resolution to read the plates off a perp's car. You'll even be able to read the titles off your DVDs that they're hauling away.

I tried it and busted a pair of cute bunnies who spent all night eating grass and hanging out in the middle of our street.

The basics are easier to figure out on your own than for me to explain here, so I'll only cover some specifics below.

### Calculations

You tell the D700 the interval between shots and how many to take.

The D700 doesn't calculate how long the series will take.

You can't tell the D700 to run for a certain period and make so many shots. You have to do the math yourself and tell the D700 how many shots and how much time between them.

### Battery

It's easy to run down the D700 battery since you can program it to make so many shots. Long night exposures will kill the battery, too. You'll wake up and wonder why it stopped halfway through.

You may want to get an AC adapter if you really get into this, or be clever and optimize your ISO to keep exposures shorter.

Be sure to turn off the LCD review.

### Select Intvl\*Shots Menu (Intervalometer)

The D700 does more than a regular intervalometer. The D700 lets

you shoot one shot at each interval, or a burst of them. The interval is set in another menu. The default interval is a minute and can be set from one second to many hours.

The Select Intvl\*Shots menu is as clear as a lens cap. The Select Intvl\*Shots menu is in the format of 001 x 1 = 0001.

The first 001 number sets the total number of intervals at which shots are made. If you set "060" and a one minute interval, the D700 shoots each minute for an hour (60 x 1 minute = 60 minutes).

The second single digit is how many rapid-fire shots are fired at each interval. Set it to one and you get the usual one shot at each interval. Set it to several and you'll make several rapid shots at each interval. You'd do this if you intend to cherry pick one shot from each burst, for instance, to recover if someone walks in front of your camera.

The last number is the total number of shots. This is calculated by the D700. You don't enter it. It's the number of bursts (the 001 part) multiplied by the number per burst.

### Time Lapse

Want to see some intensely cool stuff? Check out Thomas Kranzle's time lapse reels. He makes a shot about every 4 seconds, runs for about 640 shots, and assembles them in a film editing program at 24 fps for motion pictures. I saw his work when he showed our photo club. Also see more time-lapse magic here.

To do cool stuff like this you need to:

- 1.) Turn off every auto anything, including auto contrast and auto saturation. If you don't, your sequences will flicker from the auto WB or auto sharpening or auto anything from frame-to-frame.
- 2.) Import all your shots to your Mac.
- 3.) Open iMovie or Final Cut.
- 4.) Create a new project. Thomas selects HD to get good enough resolution for film-out.
- 5.) Select all the stills and drag them into the clips pane.
- 6.) Find the command to sequence them together in the timeline as independent frames, one frame each. I forget where this command is and will vary with your software.
- 7.) Hit go and voila! Time lapse!
- 8.) Save it as you prefer. Thomas saves them as .MOV files and outputs to 35mm movie film, although more and more clients are asking for the files instead.

Of course you can do this down at video resolution, but using HD resolution (1,920 x 1080 24p) looks incredible and is easy from a digital still camera. This looks insane when projected digitally from a computer, since video by comparison is only 720 x 483i. My old iBook laptop can do this and output in HD easily with the software that came with it for free; good luck in Windows. I have an article on Why Video Looks Crappy, and thus why you should do this in HD. HD has two-megapixel resolution while video has only 1/3 of a megapixel.

Exposure is set manually and left alone. For sunrises and sunsets it looks much better to have it fade to or from black than to twiddle the exposure frame-to-frame.

You can cheat and shoot bracketed bursts and import each set of shots as its own parallel timeline. You can crossfade between them as the sun comes up or down. Thomas found all this effort didn't have much benefit. (Beats me how to shoot bracketed bursts on the D700, I haven't tried. Thomas shot what you see with a Canon 20D. He wears out a lot of them!)

## Nikon D700 Custom Setting Menu (pencil icon)

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD.

### What it Does

The Custom Setting Menu screws with the camera's mechanics and meters and timers and focus and many other little things.

Nikon has subdivided these various menu functions into groups, and color coded them as Autofocus, Metering/Exposure, Timers/AE Lock, Shooting/display, Bracketing/Flash and Controls. The seemingly unrelated things separated by slashes (/) are Nikon's grouping.

I use Nikon's names as headers for each section, so please excuse me if they make little sense.

### What I Change

I change a zillion things, all explained on the next pages where I detail everything.

### Complaints and Organization

Nikon is pretty sloppy about naming and organizing the menus, sorry.

This menu is also all about shooting, just like the Shooting Menu. It's tricky to remember if something is in the Shooting Menu or the Custom Setting Menu.

I would rename these. If I did, I'd rename the Custom Setting Menu as the Camera Menu and the Shooting Menu as the Film Menu.

I use the D700 daily and rarely can remember in what menu Nikon has hidden what. I use the My Menu menu to put the items I use often.

### [C] Custom Setting Bank

There are four selectable memory locations which store all the settings in this menu. They are called A, B, C and D. You may add your own names to them for convenience. I leave my A blank, and call B "Studio."

Nikon did another bone-headed thing by naming the Shooting Menu Banks A, B, C and D, and then using the same names (A, B, C and D) for these Custom Menu Banks. They should use 1, 2, 3 and 4 for one of them to prevent confusion. Don't worry: I have an engineering degree and these confuse me, too.

If you use remote flash, one of these banks is a good place to save the settings.

If you have anything set away from the defaults you'll see CUSTOM and A, B, C or D on the top LCD. Regardless of which is selected, if all the defaults are selected (you can do that with Reset below) you won't see CUSTOM on the top LCD.

There is no "SAVE" command. The bank you have selected is updated immediately as you change settings. If you've never selected one then you've been working in the A bank.

You can save names for each, but you can't lock any of these banks. If you have a bank you don't want altered, don't shoot actively with it. Anytime you change anything in the Custom Setting

Menu you are changing the settings of whichever bank you have selected. To save a Bank you must work in another, since there's no way to lock them. Nikon confuses us all by letting us save names which stay locked while the settings wander all over the place as we change them in shooting.

I ranted about this back at Shooting Menu Banks.

### [R] Reset custom settings

This resets everything in the selected Custom Shooting Menu Bank (just described above) to the defaults. The next six pages describe all the settings affected. Reset only affects the bank (A, B, C or D) in which you're working.

Play with everything below to your heart's content, since if you screw anything up this reset will fix it. Choose a bank you don't use and you won't change the bank you do use.

Once you hit YES it resets. It doesn't ask "are you sure?" first.

I've divided the rest of this menu into several pages because it's so long. I've divided it up as Nikon did in its own submenus.

# Nikon D700 Custom Setting Menu: Autofocus

## a1 - a10: Autofocus

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD. Click down to a AUTOFOCUS and click to the right.

### What it Does

It sets many options for the advanced AF system.

### What I Change

I change a1 and a3, and leave the rest at their defaults.

## a1 AF-C priority selection

At default, this lets you take fuzzy action pictures.

At the default "Release" setting, the D700 will fire anytime you press the shutter in AF-C mode, regardless of if it's in focus. Nikon's cameras usually can't run at their advertised frame rates and stay in focus at the same time.

At the default Release setting, most of your sequences will be out of focus! Set it to "Focus" instead and the D700 only will fire when it's in focus, ensuring a sharp sequence.

**Release:** The default mode, this lets the D700 free-run at 5 or 8 FPS, whether or not it's in focus. In this mode often only the first few shots of a sequence are in focus.

**Release + focus:** I use this. It's a halfway setting. It makes the D700 slow down and get most action shots in focus.

**Focus:** This makes the D700 wait until it's in perfect focus before firing any shot.

Because it waits for focus you can shoot long bursts and they'll all be in focus, but I find it's too picky than the Release + Focus mode.

See also How to Use the D700 AF System.

## a2 AF-S priority selection

At the default setting, the D700 only fires after getting perfect focus. Nikon call this "Focus Priority." It's the opposite of the default for AF-C mode, which lets the D700 fire at any time.

If you use off-brand or defective lenses that can't get the green focus confirmation dot in the lower left of the finder to light, the D700 won't fire. If you have a problem with this you might want to take this off the default setting.

**Focus (Default):** D700 only fires after it's gotten and locked perfect focus.

**Release:** D700 fires anytime you press the shutter, regardless of if it's in focus or not. Try this setting if your D700 seems to lock up with some lenses.

See also How to Use the D700 AF System.

## a3 Dynamic AF Area

There is a lot of crazy stuff here. I use 51 Points (3D-tracking) which lets the D700, in the crosshair and AF-C modes, track a target and show you what its doing. See How to Use the D700 AF System for more.

## a4 Focus Tracking with lock-on

This selects how long the D700 focus tracking system waits to start looking for the subject if it loses it behind a tree or person. This only applies in the AF-C (continuous) AF position.

I leave this alone.

**Long:** The D700 presumes the subject has run behind something big, like a billboard, if it loses it. The AF system keeps running without it for a while, expecting the subject to return on the same path from before. In LONG the AF system has a lot of patience for subjects disappearing.

**Normal (default):** The D700 presumes the subject has run behind something like a tree or another player if it loses it. The AF system keeps running without it for a little while, expecting the subject to return on the same path from before.

**Short:** The D700 has little patience for subjects evaporating. It doesn't wait very long after it loses your subject to start looking for it again from scratch.

**Off:** The D700 wastes no time tracking. If it loses your subject it immediately starts looking around again. You might want to use this if you're shooting a bunch of fixed things at varying distances one after another, but I use AF-S for that.

I've never moved this setting from its default of Normal.

## a5 AF activation

This allows the AF system to ignore the shutter button.

**Shutter/AF-ON:** In its default position, the AF system turns on when you press the shutter or the AF-ON button on the back.

**AF-ON only:** The D700 won't focus when you press the shutter. It only focuses when you press the AF-ON button on the back.

I've never used this. It might be helpful with an AF telephoto that lacks easy manual override. You'd use the AF button to focus, and remove your finger to lock.

## a6 AF Point Illumination

This controls when, or if, the AF points light up in the finder.

**Auto:** Default; they light up as they need to. I leave it here.

**ON:** Always on (when the meter is on).

**OFF:** Always off.

## a7 Focus point wrap-around

AF point selection normally stops when you hit the edge of the constellation of AF areas.

**No wrap (default):** If you keep pressing the selector to the left it stops at the far left. I prefer it this way.

**Wrap:** Wrap lets your selection wrap around to the other side of the AF areas!

## a8 AF point selection

**AF51 (default):** You may select any of the 51 AF points.

**AF11:** You only get to select 11 of the points. You don't have to click around as much with the Big Rear Thumb Switch, but you only get to

select 11 of the 51 points. These 11 points are similar to the 11 points of the D2, F6, and D200.

### **a9 Built-in AF-assist illuminator**

---

This lets you deactivate the annoying AF assist light. Normally it comes on in the dark to help focus. Turn off the AF assist light if you want to keep a lower profile.

### **a10 AF-ON for MB-D10**

---

This lets you choose what the AF-ON button does if you have an MB-D10 grip when shooting vertically.

# Nikon D700 Custom Setting Menu: Metering/Exposure

## b1 - b6 Metering/exposure

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD. Click down to b METERING/EXPOSURE and click to the right.

### What it Does

Here we set important metering and ISO options.

### What I Change

I change b1 and b2. I leave the rest alone.

## b1 ISO sensitivity step value

This defaults to 1/3 stops. That's silly.

I set mine to change the ISO in full stops. I shoot at 200, 400, 800, 1,600, 3,200 or 6,400 and don't waste time in-between. By not bothering with the in-between thirds I can select my ISOs faster with fewer clicks.

## b2 EV steps for exposure control

This defaults to 1/3 stops. I don't use this, except in manual exposure.

In the Auto modes I set it to full (1) stops. This lets me make my settings faster, since they take fewer clicks. Depth of field or motion control doesn't need more precision than a full stop.

Even though the D700 sets exposure steplessly, finder and EXIF readout of apertures and shutter speeds in auto modes is rounded to the nearest full stop. I prefer this; I have enough to worry about without having to do mental gymnastics to realize that  $f/6.3$  is the same as  $f/5.6$ .

**Design Flaw:** Ideally Nikon would provide separate settings for manual and auto exposure. I'd set 1/3 stops for manual exposure and full stops in auto exposure (P, S and A modes). You need the precision in manual mode, but not in the auto modes, because the values chosen by the D700 are set steplessly regardless of how they are displayed.

## b3 Exp comp/fine tune

Leave this at 1/3. It's silly to fine tune in full stops. I tune in thirds.

## b4 Easy exposure compensation

This lets you alter your exposure by turning the front dial without having to press the Exposure Compensation (lighten/darken) button.

I love "Easy," which is the name of this feature, but it's too easy. I hit the dial too often by accident, so I don't use it. I leave it at its default of OFF.

RESET is a great idea if you use the EASY setting. RESET automatically resets the exposure compensation to zero every time you turn the camera back on. This is a very good idea. Otherwise you may lose a lot of shots from having a wrong value set from yesterday's last shot.

## b5 Center-weighted area

This sets the diameter of the sensitive part of the center weighted meter. These settings only take effect when you've selected center weighted metering.

I never use center weighted metering, so I certainly never play with this.

You also have the option of metering from the entire image, called "Average."

These modes went out in 1983 when the Matrix Meter was invented, but old-timers cling to these so Nikon leaves them in. I always use Matrix.

## b6 Fine tune optimal exposure

### Don't do this!

This is a service adjustment that allows you to make permanent tweaks to the exposure meter calibrations. These settings do not show up on the control panels!

You'd use this if your camera were defective, or if you did something weird like convert it to infra-red.

If you dare do this, you can tweak the meters in sixth-stop increments, with different adjustments for each of the Matrix, Center-Weighted and Spot meters.

Don't do this. This should be hidden as a service facility tweak. If your shots are too dark or light you should have your camera repaired, or use the regular Exposure Compensation button.

# Nikon D700 Custom Setting Menu: Timers/AE lock

## c1 - c4: Timers/AE lock

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD. Click down to c TIMERS/AE&AF LOCK and click to the right.

### What it Does

AE lock is important to getting perfect files straight from the D700 without editing.

Timers optimize battery life vs. convenience.

### What I Change

I change all of them except c1. I leave c1 at its default.

## c1 Shutter-release button AE-L

This lets you lock the exposure with the shutter button, like a point-and-shoot camera. You don't want that, so leave this one alone.

The D700 has a dedicated AE Lock button. You don't want the shutter button to lock exposure.

## c2 Auto meter-off delay

This sets how long the meter stays awake.

Shorter times will save the battery. Set it longer if you have to keep hitting the shutter to wake the meter in the middle of composing shots. I use 8 seconds.

## c3 Self-timer delay

This sets the self-timer delay.

10 seconds is for taking Christmas card photos.

2 seconds is for replacing a \$100 cable release when using a tripod with long exposures.

## c4 Monitor-off delay

This sets how long the rear LCD stays lit. There are separate settings for Playback, Menus, Shooting INFO display (the rear 3" LCD lighting up with all your settings) and Image Review (the auto playback of a shot you just made).

# Nikon D700 Custom Setting Menu: Shooting/display

## d1 - d11 Shooting/display

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD. Click down to d SHOOTING/DISPLAY and click to the right.

### What it Does

This menu is a random jumble. These ideally belong in other menus.

### What I Change

I change d1 and leave the rest alone.

I'm sorry that Nikon put a menu called Shooting inside a menu called Custom Setting, since it has nothing to do with the larger Shooting Menu. This is something else that needs to be reorganized. Sorry.

### d1 Beep

Turn this OFF!!!

This is the idiotic and annoying focus confirmation beep. Turn it off, or forever be branded as a rude amateur.

### d2 Viewfinder grid display

This activates hairlines in the finder. Set them ON to help keep everything straight and level.

### d3 Screen tips

If you hit the rear INFO button twice, it turns on the big rear LCD and adds the ability to set the critical menu items which appear along the bottom of the LCD.

These "tips" are additional highlighted explanations of what each setting does. I leave this at its default of on.

### d4 Cl mode shooting speed

This selects the maximum frame rate of the CL (continuous low) frame advance setting. I leave mine on 3 FPS.

### d5 Max continuous release

This selects the maximum number of continuous shots you can make in the Cl or Ch continuous release modes.

It defaults at 100, and I have no reason to set it to be less. If I want fewer shots, I take my finger off the shutter release.

### d6 File number sequence

This ensures your file numbers keep counting up. Leave this at its default of ON.

If you change it to OFF, you'll start from DSC\_0001 every time you reformat. Over time you'll have hundreds of photos on your computer all called DSC\_0001. It will drive you crazy and it will be too late to do anything about it.

If you ever do want to reset to DSC\_0001, use the Reset option.

## d7 Shooting info display

**Auto** lets the D700 light up the 3" rear LCD with your shooting data in black on light cyan in daylight, or gray on dark blue at night.

**Manual** lets you fix it at either kind of display.

## d8 LCD illumination

At default, the top LCD only lights up when you spin the light button located with the power switch. I leave this setting this way.

If you choose ON, the top LCD lights up even in daylight.

## d9 Exposure delay mode

This makes the D700 wait 4/10s of a second to release the shutter after you press it.

It flips the mirror first. Try this if you're using a long lens on a tripod with exposures of between 1/60 and 1/2 second, where mirror shake is the biggest problem.

The Mirror Up mode is better for this.

## d10 MB-D10 battery type

Forget this if you use the usual EN-EL3e batteries in the grip.

If you use AA batteries, set this and you'll get more accurate battery level readings.

Leave this alone if you're using throw-away AA alkaline batteries or the EN-EL3e. Change it if you're using throw-away AA lithium, Ni-MH AA, or crappy throw-away "heavy duty" AA cells.

## d11 Battery order

If you change this and you're using the grip, this lets you run down the battery in the camera first, so you have to remove the grip to change it.

Leave this setting alone, so it runs down the battery in the grip first, and only then uses the battery in the camera. This makes much more sense, since it's a lot easier to change the battery in the grip, and when you pull the grip, the battery in the camera is going to have a lot more charge.

# Nikon D700 Custom Setting Menu: Bracketing/flash

## e1 - e7: Bracketing/flash

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD. Click down to e BRACKETING/FLASH and click to the right.

### What it Does

It sets flash function and completely unrelated bracketing options.

### What I Change

I change e4, and leave the rest alone.

## e1 Flash Sync Speed

This lets you select a lower flash sync speed. You might want to choose a slower speed to let in more ambient light, but I select that with the next option.

This menu lets you select 1/60 through 1/250.

It also is where you must select AUTO FP if you wish to use the trick FP high-speed sync modes.

## e2 Flash Shutter Speed

This selects the slowest shutter speed with flash in the P and A modes.

1/60 is default. I usually set about 1/30 or 1/15 to let in more ambient light to prevent my backgrounds from blacking-out.

Slower speeds like 1/8 let the backgrounds stay much lighter, but greatly increase the chances of motion blur.

## e3 Flash cntrl for built-in flash

This sets what the built-in flash does.

By default it works like a TTL flash. That's good. It works great.

You also may set it manually, or play with an idiotic repeating strobe mode.

Hidden in the C(bolt) Commander mode menu is how to set the flash to become the commander to talk to a wireless remote flash, which today is the SB-600, SB-800 and SB-900.

Under this menu you can set two groups of external flashes separately, as well as how much light comes from the built-in flash.

"Comp" is the exposure compensation (brightness) for each of these groups of lights.

You can set lighting ratios of remote flashes, right from the D700!

Here's how to get it to work:

Select C mode.

**Trick:** You have to set Channel 3, not the default of 1, to get this to work! My SB-600 defaults to channel 3. You can any channel, but the flash and camera have to match. Different channels are handy if you have a lot of photographers shooting in the same arena. No, I have no idea why the D70 defaults to 3 as does the SB-600, and the D700 defaults to ch. 1.

Leave the rest of it alone. Set your flash for remote operation, and away you go. I prefer to save all this in a bank as explained at the

Custom Setting Menu page. This way I save a lot of twiddling when I want to use remote flash, and save it again when I want to go back to normal.

See also my page on how to use remote flash. It's an incredible feature, and it's free if you have an SB-600, SB-800 and SB-900.

## e4 Modeling Flash

Turn this off!

Otherwise you'll go blind, because at its default, a design flaw, it fires a zillion flash shots as a modeling light if you tap the Depth-of-field preview button.

## e5 Auto BKT Set

This controls what changes when you have the D700 bracket.

You can have everything change exposure, or just the flash, or the ambient light, or have the WB bracket.

I never use these. Bracketing is for the weak. Use your LCD for crying out loud. This feature is a left-over from film cameras, and real photographers never used bracketing with film either.

## e6 Auto bracketing (mode M)

This controls what changes when letting the D700 bracket itself in manual exposure mode.

I never use this.

## e7 Bracketing order

This sets the order in which the various bracketed exposures are made.

# Nikon D700 Custom Setting Menu: Controls

## f1 - f12: Controls

### How to Get Here

Press MENU, go to the left and select up and down to the pencil icon. You'll then see CUSTOM SETTING MENU on the color LCD. Click down to f CONTROLS and click to the right.

### What it Does

Here lie some of the most important tricks I use on my D700. These change what some of the buttons and knobs do.

### What I Change

I change a lot of these. Read on.

## f1 Light Bulb Switch

This is new and innovative on the D700. This lets us fire up the big rear LCD to show us all our settings whenever we flick the power switch to the backlight position.

I chose the new option of BOTH.

The default of LCD backlight means the backlight (light bulb) switch lights the top LCD's backlight. Big deal; Nikons have done this the 1990s.

The new option also lights up everything on the glorious 3D rear LCD where I can see it, and shows far more information than the dorky top LCD, which is just a vestige from 1990s film cameras.

This works in concert with the INFO button.

## f2 Multi Selector Center Button

This is a cool one. People see this on a workshop, and think that it's just made the whole workshop worthwhile, just for this trick.

This lets you select what happens when you press the center of the rear thumb selector.

You may select different things for shooting and for playback.

In shooting I prefer to have mine select the center AF area.

In playback there is a very clever trick I suggest everyone set:

**Trick:** under playback mode, select ZOOM ON/OFF. Now pressing the center of the selector zooms in. I choose MEDIUM.

**Trick of tricks:** Once you set this and use it, the rear dial flips through all the shots at the same position and magnification! I do this all the time.

It's great for selecting which shot is sharp or not. Sadly once you use the Delete key the D700 reverts to non-zoomed mode, so you'll have to zoom and scroll back to the same spot to continue in-camera editing.

## f3 Multi-Selector

You can set the rear thumb selector to turn on the meter or the AF system. I never use this.

## f4 Photo Info/Playback

This lets you choose which directions do what on the rear thumb when playing back.

You can select this switch to match Canon or Nikon's convention.

In other words, it's your choice of tapping left and right or up and down to go forwards and back or to see the data about an image.

## f5 Assign FUNC. button

This selects what the magic Function Button does. These settings are so helpful I wish I had several FUNC buttons, or the ability to assign these to other buttons I don't use.

I set it to get me to the top item in My Menu, which I set to Picture Controls. Now one tap of the FUNC button lets me select wild colors for photos of things, or lower it for photos of people from shot to shot. (you also can get to Picture Controls via the INFO button.)

Trick: It's cool enough to be able to get to Picture Controls with one tap, but the secret is now that you're there, one click left on the Big Thumb Button just got you into the menu system, from which you now can adjust anything, and I mean anything, with one hand.

You only get one choice at a time. The D200 let you do two things at once, but not on the D3, D700 or D300.

Here are what they do:

## FUNC button press

### Preview

Depth-of-field preview.

### Fv lock

Tap the FUNC button, the flash goes off and meters itself - once. Now every succeeding shot needs no preflashes! This means that, so long as your distance stays unchanged, that you'll get instant shutter release, and more importantly, no blinking from the preflashes. This choice fires the preflashes only once, and uses that information for every succeeding shot until you reset it.

It resets itself when the meter turns off, or if you tap the Function Button again.

### AE/AF lock

Locks exposure and focus.

### AE lock only

Locks exposure.

### AE lock (Reset on release)

Locks exposure and holds it until you take a picture, the meter turns off or you press FUNC again.

### AE lock (Hold)

Locks exposure and holds it until the meter turns off or you press FUNC again.

### AF lock only

Locks focus.

**Flash Off**

Doesn't fire the flash so long as you hold the FUNC button.

**Bracketing burst**

In single frame mode, the D700 goes off and shoots an entire bracketing sequence as set elsewhere.

**Matrix**

Goes into Matrix metering.

**Center-Weighted**

Goes into CW metering.

**Spot**

Goes into spot metering when held

**Access top item in My Menu**

Overrides anything else, except picture taking, and brings you to your top menu item.

**Live View:**

Does the same thing as the [Lv] position of the advance mode dial.

**+NEF**

When you hold the FUNC button while taking a picture, or press it before, you'll also get an NEF file along with your JPG. This only works while shooting JPG, not with TIFF.

**Virtual Horizon**

Uses the finder's bar-graph display to work as an electronic level to keep your photos level.

**FUNC button + dials****Chose Image Area**

Hold FUNC and turn the dial to get digital zoom; which selects DX even if you're shooting an FX lens. (see crop factor.)

**Lock**

Hold FUNC and spin the dials to lock shutter speed or aperture at its current setting. The only time I use this might be in the studio when I don't want my manual sync speed to get knocked.

**1 step spd/aperture**

I do this in the exposure CSM, but here you can force the D700 to shift in full stops as long as you hold the FUNC button.

**Chose non-CPU lens number**

You use this to select easily among the various manual-focus lenses you've programmed under enter non-CPU lens data.

**Auto bracketing**

This programs the FUNC button to replace the BKT button of earlier cameras.

**Dynamic AF area**

This lets you spin the dials to select the dynamic AF area. I have no idea how this differs from the other AF settings.

**f6 Assign preview button**

This selects what the depth-of-field preview button does. If you chose anything other than Preview, you usually lose the preview function.

Many of these are the same as the options for the FUNC button. There are more clever functions than there are buttons to which to assign them.

I leave this one on preview.

**Preview button press**

**Preview:** Depth-of-field preview.

**Fv lock:** Tap the preview button, the flash goes off and meters itself - once. Now every succeeding shot needs no preflashes! This means that, so long as your distance stays unchanged, that you'll get instant shutter release, and more importantly, no blinking from the preflashes. This choice fires the preflashes only once, and uses that information for every succeeding shot until you reset it.

It resets itself when the meter turns off, or if you tap the preview button again.

**AE/AF lock**

Locks exposure and focus.

**AE lock only**

Locks exposure.

**AE lock (Reset on release)**

Locks exposure and holds it until you take a picture, the meter turns off or you press preview again.

**AE lock (Hold)**

Locks exposure and holds it until the meter turns off or you press preview again.

**AF lock only**

Locks focus.

**Flash Off**

Doesn't fire the flash so long as you hold the preview button.

**Bracketing burst**

In single frame mode, the D700 goes off and shoots an entire bracketing sequence as set elsewhere.

**Matrix**

Goes into Matrix metering.

**Center-Weighted**

Goes into CW metering.

**Spot**

Goes into spot metering when held

**Access top item in My Menu**

Overrides anything else, except picture taking, and brings you to your top menu item.

**Live View**

Does the same thing as the [Lv] position of the advance mode dial.

**+NEF**

When you hold the preview button while taking a picture, or press it before, you'll also get an NEF file along with your JPG. This only works while shooting JPG, not with TIFF.

**Virtual Horizon**

Uses the finder's bar-graph display to work as an electronic level to keep your photos level.

**Preview + command dials****Chose Image Area**

Hold preview and turn the dial to get digital zoom; which selects DX even if you're shooting an FX lens. (see crop factor.)

**Lock**

Hold preview and spin the dials to lock shutter speed or aperture at its current setting. The only time I use this might be in the studio when I don't want my manual sync speed to get knocked.

**1 step spd/aperture**

I do this in the exposure CSM, but here you can force the D700 to shift in full stops as long as you hold the preview button.

**Chose non-CPU lens number**

You use this to select easily among the various manual-focus lenses (or zoom settings) you've programmed under enter non-CPU lens data.

**Auto bracketing**

This programs the preview button to replace the BKT button of earlier cameras.

**Dynamic AF area**

This lets you spin the dials to select the dynamic AF area. I have no idea how this differs from the other AF settings.

**f7 Assign AE-L/AF-L button**

This sets the function of the AE-L/AF-L button on the rear of the D700. It also can be set to many of the same functions as the other buttons.

I set mine to AE lock. This way I point the camera where I want my exposure, and hold the button until I recompose and make my exposure.

**AE-L/AF-L button press****Preview**

Depth-of-field preview.

**Fv lock**

Tap the AE-L/AF-L button, the flash goes off and meters itself - once. Now every succeeding shot needs no preflashes! This means that, so long as your distance stays unchanged, that you'll get instant shutter release, and more importantly, no blinking from the preflashes. This choice fires the preflashes only once, and uses that information for every succeeding shot until you reset it.

It resets itself when the meter turns off, or if you tap the AE-L/AF-L button again.

**AE/AF lock**

Locks exposure and focus.

**AE lock only**

Locks exposure.

**AE lock (Reset on release)**

Locks exposure and holds it until you take a picture, the meter turns off or you press AE-L/AF-L again.

**AE lock (Hold)**

Locks exposure and holds it until the meter turns off or you press AE-L/AF-L again.

**AF lock only**

Locks focus.

**AF-ON**

Focuses while you press the AE-L/AF-L button.

**Flash Off**

Doesn't fire the flash so long as you hold the AE-L/AF-L button.

**Bracketing burst**

In single frame mode, the D700 goes off and shoots an entire bracketing sequence as set elsewhere.

**Matrix**

Goes into Matrix metering.

**Center-Weighted**

Goes into CW metering.

**Spot**

Goes into spot metering when held

**Access top item in My Menu**

Overrides anything else, except picture taking, and brings you to your top menu item.

## Live View

Does the same thing as the [Lv] position of the advance mode dial.

## +NEF

When you hold the AE-L/AF-L button while taking a picture, or press it before, you'll also get an NEF file along with your JPG. This only works while shooting JPG, not with TIFF.

## Virtual Horizon

Uses the finder's bar-graph display to work as an electronic level to keep your photos level.

## AE-L/AF-L button + dials

### Chose Image Area

Hold AE-L/AF-L and turn the dial to get digital zoom; which selects DX even if you're shooting an FX lens. (see crop factor.)

### Lock

Hold AE-L/AF-L and spin the dials to lock shutter speed or aperture at its current setting. The only time I use this might be in the studio when I don't want my manual sync speed to get knocked.

### Chose non-CPU lens number

You use this to select easily among the various manual-focus lenses you've programmed under enter non-CPU lens data.

### Auto bracketing

This programs the AE-L/AF-L button to replace the BKT button of earlier cameras.

### Dynamic AF area

This lets you spin the dials to select the dynamic AF area. I have no idea how this differs from the other AF settings.

## f8 Shutter spd & aperture lock

This allows one to lock the shutter or aperture.

It doesn't do anything in Program exposure mode.

It locks the shutter in Shutter-priority, the aperture in Aperture priority, and will let you lock either or both in Manual exposure mode.

Older cameras sometimes had a dedicated button for this.

## f9 Customize command dials

This allows some very clever things you'll appreciate.

**Reverse Rotation:** So what.

**Change main/sub:** So what.

**Aperture Setting:** Lets you set apertures with the rings on the lens if you desire.

**Menus and playback:** Set this! If you do, the rear dial now can scroll quickly among your shots, and the front dial scrolls among the various data screens.

## f10 Release button to use dial

This lets you tap a button once to adjust instead of having to keep holding it. You can keep adjusting until you tap the shutter, at which time it cancels. I don't use this.

## f11 No memory card?

Nikon defaults this to the wrong position so that D700s can be shot in camera stores without CF cards. Be sure to set this to LOCK so that you'll never be shooting blanks!

If you don't set this away from the default of OK, you could shoot for a week and, if you don't try to play back other shots, might not notice you have no card!

Nikon does put up a red DEMO warning flag on playback, and the fact that they call it Demo means that you know it was done to help old-style retail camera stores that no longer exist, not to help photographers.

Earlier model cameras used to default to the correct LOCK position, but this meant that retail camera stores needed salespeople who knew how to use a camera to set it up so it could shoot in-store. Those days are gone: the default of ENABLE is so these can be put out by the janitor at Best Buy today for people to try.

Don't forget to set this to LOCK!

## f12 Reverse indicators

Nikon's exposure meters have always read backwards. More exposure goes to the left, and less exposure goes to the right. Huh?

Nikon's rangefinder cameras of the 1940s had shutter dials and aperture rings which rotated in one direction. No big deal, but when Nikon added meters to cameras in the 1960s, the meters had to read to make sense as you moved the dials, so Nikon's meter needles and bar graphs have always gone in the wrong direction. (The superior vertical bar graphs of the D3, D2 and F6 don't have this problem: up is more.)

Thankfully Nikon has never changed this, since in whatever decade they do, there will be massive confusion among all Nikon users familiar with the (wrong) way it's been forever.

For newcomers, you can use this menu to flip things back to normal, as Canon has done it since their EOS cameras of the 1980s. If you do, more goes to the right.

# Nikon D700 Setup Menu (wrench)

## How to Get Here

Select the Set Up Menu by pressing MENU, moving to the left and then up or down to select the wrench icon. You'll then see SET UP MENU on the color LCD.

## What it Sets

This sets the usual housekeeping like rotation, the clock and file numbering.

## What I Change

This menu contains the secret message mode I use to encode my © and contact information into every file shot with my D700.

I also read the Battery Info often. You can't change it, just read it.

## Format memory card

This duplicates the function of the two red FORMAT buttons.

I format my card every time I put it in my D700, and every time I go out shooting.

It's always best to be using a freshly formatted card.

To be safe, always reformat the card in the D700 after the D700 has been connected to any computer.

Of course formatting completely wipes any photos off your card. Be sure to have these photos transferred and backed up to at least two locations before formatting. See my Field Workflow page for more.

## LCD Brightness

This changes the midtones on the LCD. It doesn't appear to change the intensity of the backlight. It seems to be a gamma (contrast) control.

For the adjustment to take effect you must remember to hit OK after making a selection. I leave mine at 0.

## Clean image sensor

This setting runs the self-cleaning function.

It also allows you to set it to run every time the D700 is turned off or on, just like Canon. I wouldn't do this, since it wastes a lot of time.

## Lock mirror up for cleaning

This setting is for mechanical cleaning. Don't ever touch the sensor with sensor swabs or any of that crap!

I clean my cameras with a vacuum, and send them in to Nikon after a few years if the dirt gets really bad.

## Video Mode

This sets the format of the analog video output.

Use NTSC (525 lines, 59.94Hz) in the Americas and Japan, and PAL (625 lines, 50Hz) in Europe.

This output will always look much worse on a TV or projector than images do on a computer or projected through a computer. Read Why Images Look Awful from the Video Output for more.

## HDMI

This sets the format of the HDMI digital TV output. I leave it on

Auto, and unlike the crappy analog video output, it looks fantastic on a big HDTV.

## World Time

This is where you set the date and time.

There is a nice map for finding time zones. You can swap among time zones without having to reset the seconds, a boon for me who keeps his D700 set to the exact second.

## Language

This sets English or other languages.

Set yours to Swedish and see if you can navigate back to English. Fun!

Unfortunately Nikon figured this out, and if you do, the Language option, which before was only listed as Språk in Swedish, also is listed as (Language) in every language mode, even Korean.

## Image Comment

This lets you add a secret text message into every file. Mine is set to (c) KenRockwell.com with my phone number! You see this text looking at the EXIF data in software on a computer. Sadly Nikon provides no real © symbol.

You set this by going to MENU → Set Up Menu → Image Comment → Input Comment → (add your message like you did on 1970s video games) → Enter. You must hit ENTER or it will forget everything you just did!

To edit or remove a character, select it in the Input Comment screen by holding the checkerboard button and clicking the big thumb selector. Select a new character with the same selector and press the center of the selector to add it. Press the Trash button to delete a character.

When you get your text message spelled out, go to Attach Comment and hit SET so a small checkmark shows. Now go to and select DONE. If you forget to check Attach it won't attach, and if you forget to hit DONE it will also forget everything you just did. Sorry, I don't write the firmware.

It's great having everything you shoot have your contact info embedded. It also allows you to prove ownership in a third-world country when catching a thief with your camera. Help the cop go through the menus and read your personal ID information.

See also Copyright information below.

## Auto Image Rotation

This sets a flag in vertical images which keys most software to display the image vertically.

It does not actually rotate the images; it just sets a flag. Someday the camera's firmware will work properly and rotate the image itself, but no camera does this yet.

I rotate the images later in iView.

## Dust Off Ref Photo

This is used to take a picture of the dust on your sensor. If you pay Nikon another \$100 for Nikon Capture software you can use this to

erase the dust more easily from your images shot in raw. You people know who you are. I don't do this!

I've made 40,000 shots on my D3 and have little problem with dust. Thankfully the D700 sensor has a filter far enough removed from the imaging surface to throw dust sufficiently out of focus.

## Battery Info

I use this all the time.

**Bat. Meter** reads the battery charge to the nearest one percent. This is the same battery data shown on the top LCD display, but the top gauge only has 5 bars to read to the nearest 20%.

**Pic. Meter** shows how many images have been shot on this charge.

**Charging life** shows the battery's health. A new one reads 0 and an almost dead one reads 4.

I've made 24,000 shots on my D200 by alternating between two batteries, and they both still show "new." The trick is not to run them all the way down before charging. Read Getting Great Battery Life to see how I do it.

## Wireless transmitter

This is for people using the corny Nikon WT-4 data transmitter.

## Image Authentication

This is for people using Nikon's \$500 image authentication software to prove that resulting image files haven't been twiddled with. It slows things down, so don't use it unless you're using the D700 for evidence.

## Copyright information

This, like Image comment, lets you add even more information in the EXIF data.

I use this feature to add my website, email and second phone number to each file.

Even though everything shot by an American photographer is © the moment it's created, you can't really get into a courthouse to do anything about it unless you've also formally registered it. This article and entire website are formally registered with the US Copyright Office, as I suggest you do for all your work as well.

When your work is registered, you will receive a formal written Certificate of Registration with your copyright registration number. Without that, good luck in court. Infringers know few photographers bother.

## Save/load settings

This lets you save almost all your D700 settings to your CF card.

One there, you can save to your Mac, and put them back on a card later, and restore yourself into another D700, or your own D700 after lent to a friend.

## GPS

This lets you make the meter stay on all the time if you wish.

## Virtual Horizon

Not as handy as doing it in the finder with the FUNC button, this lets you call it up on the rear LCD.

It's only a part of a real virtual horizon. Nikon still has no pitch (up/down) information. It only shows roll (left/right tilt).

## Non-CPU (Manual Focus) Lens Data

This is how you get color Matrix metering, automatic exposure and EXIF data compatibility with old AI manual focus lenses.

You enter the focal length and f/stop via this menu. You also get aperture data in the finder and can use manual and Aperture priority exposure.

Trick: You can set the FUNCTION button to select among different lenses without needing a menu as explained here.

## AF fine tune

**If you can't figure this out on your own and have to read directions for this over the Internet, do not try this at home. You will probably make things worse.**

Older AF systems often had offsets with some samples of lenses. Offsets meant a constant focus error, often called "front focus" or "back focus" by laypeople.

The D700 rarely has any problems with this, unlike earlier cameras which may have needed this adjustment, but didn't have it.

If your pictures aren't sharp, 99 times out of 100 its because you, not the camera, are doing something wrong. For instance, most sports shots are out of focus because people don't know how to set the AF system properly.

before you start screwing with this, which should not have been made a user adjustment, read How to Fix Unsharp Images in its entirety.

If you still see a consistent offset (10 shots out of 10, not just one shot here and there), then feel free to adjust this. Its obvious to those with the skill required to use it properly.

Because of this, I'm not going to explain it. Keep your cotton-picking fingers off of this unless you really know what you're doing.

If you do know what you're doing, you need to look at the results on a big computer screen at 100%. The D700 is excellent, but can't show enough of the image big enough to let any of us see enough with enough precision to see the results of this adjustment.

If you do know what you're doing, it's sad to report that this adjustment isn't smart enough to be able to adjust lenses at different distances (like adjust at infinity, 30 feet, 10 feet and three feet) or at different zoom settings. Lenses need different adjustments as these two variable change.

If you attempt this tweak, you must make and compare at least ten shots at a time. The D700 AF system isn't repeatable at the precision you'll be looking, so you need to make multiple shots at each setting and average what you see. Simply taking a few shots and seeing what happens will undoubtedly lead you to making the wrong adjustments, or more fun, lead you to early insanity because you'll be attempting to quantify variations which are random shot-to-shot variation.

For instance, I did borrow a 28-70mm f/2.8 which needed adjustment at the long end, but not the short end. I adjusted it at 70mm, and it wasn't quite as good at 28mm anymore because it was fine at 28mm to begin with.

## Firmware Version

This lets you confirm if your camera is up-to-date with Nikons' free firmware updates.

As of August 2008, the D700 sitting in front of me reads A 1.00 and B 1.00.

# Nikon D700 Retouch Menu

## How to Get Here

Select the Retouch Menu by pressing MENU, moving to the left and then up or down to select the brush icon second from the bottom. You'll then see RETOUCH MENU on the top of the color LCD.

**Trick:** Press the OK button when an image is displayed to get to most of the retouch menu.

## What it Sets

This is a silly menu that lets you twiddle with images you've already shot. The originals are unaltered. The D700 creates new versions of the images and saves them.

**Concatenation:** The D700 is sneaky enough to know if a file was created with these trick modes, and often won't let you apply the same filter twice. You can concatenate different filters.

If your original image is an NEF or TIFF, it will be saved as a FINE LARGE JPG. Otherwise, it's saved the same way as the original image.

**Firmware Defect:** The new images are saved with a file number one more than the most recent image. The EXIF create time is unaltered, so you'll have to sort images by create time if you can.

This defect means that the file numbers of the newly created versions are scrambled from the originals. If you're playing with the most recent image the file numbers are close, but if you're playing with an earlier file, its file number will be unrelated to the original.

The correct way to have done this would be to retain the same file name and append -edit, -edit1, -edit2, etc. For instance, if you make a new version of DCS\_0123.jpg, the new file might be called DSC\_5837.jpg. Good luck sorting them out! If done correctly, the new version would be named DSC\_0123-edit.jpg.

The D700 is improved from earlier cameras. At least the files all begin the same way as the original file, regardless of how you set it. Pity the D40 owners who use these Retouch gimmicks, because the D40 changes the file prefixes as well!

Here's what each does.

## D-Lighting

This lightens dark shadows. It doesn't touch highlights.

You have three levels of lightening: Low, Normal, and High.

If you set ADR to AUTO for shooting as I do, you shouldn't need this. Remember: shadows are supposed to be dark.

## Red-Eye Correction

This attempts to rectify flash-induced red eyes.

This filter is sneaky enough to know if you used flash or not to make the image, and won't let you use this filter if you didn't use flash.

I've never had a problem with red-eye with my D700, so all the better. When I was able to cause red-eye, this filter only corrected half of the eyes!

## Trim

This creates cropped versions of images.

No pixels are moved or changed in size.

Trim removes unwanted pixels from the sides of an image and saves a smaller image.

## Monochrome

This creates black-and-white images.

It has three modes:

**Black-and-White**

**Sepia** (Brown-and-white)

**Cyanotype** (Blue-and-White)

Have fun!

## Filter Effects

This creates images with warmer colors. You've got your choice of:

**Skylight:** very slightly pinker.

**Warm Filter:** slightly warmer (more orange).

The Warm filter usually improves casual images. You can forget the skylight filter.

## Color Balance

This one's slick. It calls up a better control panel than Photoshop's color balance tool, which dates from the 1980s.

Nikon's tool reminds me of what we have on million-dollar Hollywood telecine color correction machines used to color correct motion pictures.

The Nikon D700 shows three histograms (reminiscent of Tektronix' WFM700 waveform monitors) and the D700's Up/Down/Left/Right key becomes the color correction track ball. Click it left and right to alter blue-red, and up down for magenta - green.

If you have something neutral, watch the waveforms, oops, histograms, until they are about equal. Left - right on the Up/Down/Left/Right key slides the red and blue in opposite directions, and green - magenta slides the red and blue equally left or right. The green stays put.

This allows you to correct in any color, and if you want to warm an image (that I do most often in Photoshop), allows more flexibility than the fixed Warm filter above.

## Image Overlay

This is silly. It creates a new image by adding two others together in the z-axis (intensity).

It only works with raw originals.

A reader wrote me with a genius plan to use this for in-camera mutilation of large dynamic range scenes by combining two very different exposures. I don't see it working. I'm missing the genius part, but try it and see if this is what blows your hair back.

You can't get to this with the OK key on playback. You have to use the menu button.

## Nikon D700 My Menu (Recent Settings) Menu

### How to Get Here

Press MENU, scrolling to the left and selecting the bottom option which has an icon resembling another menu with a check. You'll see MY MENU on the color LCD.

### What it Does

My Menu lets you put all the menu items you actually use in one place.

You also have the option of using Nikon's older Recent settings menu, which automatically update to contain the items you've used recently.

You select which of these two menus are used (My Menu or Recent settings) from inside this menu.

### What I Do with It

This feature helps immensely, since Nikon hides so many important menu items in weird locations.

### My Menu

I use My Menu.

It's obvious how to program these: your options are at the bottom of this menu (or at the top before you put anything in it).

I have these programmed to:

### Set Picture Control

My top item, to which I can get by assigning the FUNC button, lets me select among the various picture controls. I use my VIVID setting with +3 saturation for photos of things, and NEUTRAL with +1 saturation for photos of people.

### ISO sensitivity auto control

I turn ISO AUTO on and off here as I go between auto and manual exposure.

### ISO sensitivity settings

In this menu I set the lowest shutter speed depending on what I'm shooting. I set 1/100 if shooting people, 1/250 if shooting a long tele, and 1/8 if shooting wide landscapes.

### Active folder

I use this to create a new folder for each subject I shoot.

### Assign FUNC button

This makes it easy to reset the FUNC button to another clever trick. I use this profusely on my D3, but since the D700 doesn't offer variable aspect ratios, I don't reprogram the FUNC button of the D700 and could take this off the D700's My Menu.

### Image review

Sometimes I want to see each shot when shooting slowly, some times when shooting bursts I don't want the monitor popping in by itself. Here is where I set this.

Ideally Nikon needs a firmware improvement whereby we can switch between these by holding the Play button for several sec-

onds, but Nikon hasn't gotten there yet.

### Non-CPU lens data

Here is where I set and select among my various manual focus lenses. You can skip this if you only shoot AF lenses, or just one manual lens. The D700 recalls the last setting whenever you pop on a manual lens, so if you only have one, set it and the D700 recognizes it by magic. If you use two or more (or use a manual-focus zoom), this lets you select which lens or focal length.

### Battery info

If you're the sort of person like me who watches your digital clocks to be sure they count up properly, this menu lets you read your battery power to the nearest single percent. It also tells you how many shots you've already made on this charge, which can help you predict how many shots are left. You'll need Algebra to calculate remaining shots; the D700 doesn't do it for you.

To calculate, remaining shots = (pic meter) / (1-(bat. meter/100))

Charging life is the health of your battery. I've made many tens of thousands of shots on my many Nikons, and have never seen it read anything other than o (new). See How to Keep Your Batteries Healthy.

### Recent settings

Recent settings is the older lazy-man's version of My Menu. Recent settings contains about the last 14 menu items you've set.

To use the Recent settings menu instead of the default My Menu menu, select this at the very last Choose tab option. Here you may choose My Menu or Recent settings. If you choose a different one, you won't lose what you've set in the other, although items are only added to Recent settings while you've selected Recent settings.

Cooler still is that even if you choose Recent settings, the option to assign the FUNC button to go to the top item in My Menu still gets you to that item. If you are in Recent settings and use the FUNC button to get to the top item in My Menu, clicking left gets you not to My Menu, but Recent settings.

### That's it! Go make some great pictures!