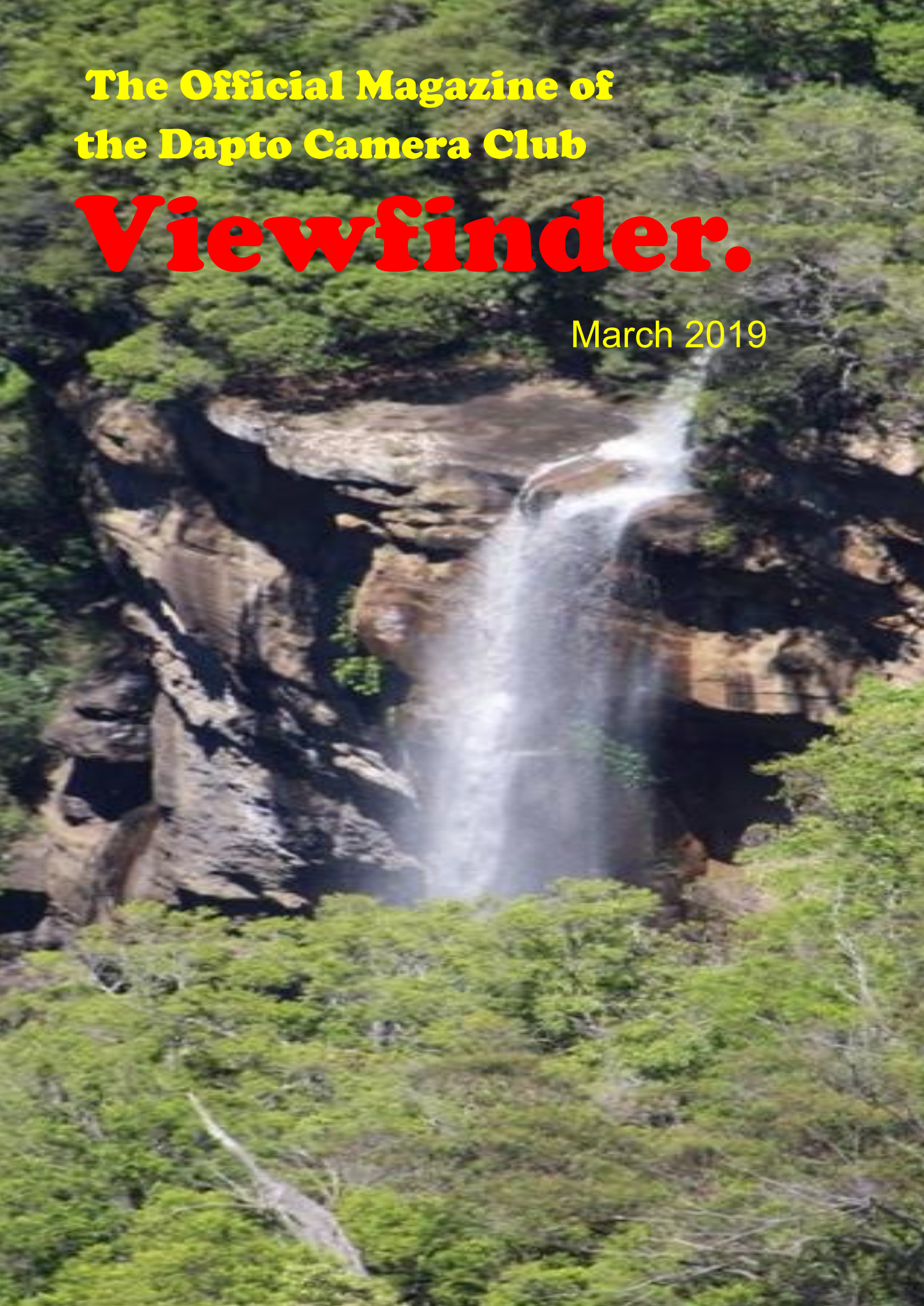


**The Official Magazine of
the Dapto Camera Club**

Viewfinder.

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Updating your Camera's Firmware – What is it and Why it's Important

By: Roy Vieth



Does your camera have the latest firmware?

This topic is one that I often find myself explaining in more detail, and one that many people aren't even aware that they can update their camera's firmware, and how this may affect their digital camera. An analogy is to updating the version of software on your smart phone.

What is firmware and why is it important?

Inside your camera is a microprocessor (small computer), that uses software stored on non-removable flash memory inside your camera. This is called firmware and is the operating system of your camera which allows

you to control the features and functions, with the camera's menus and buttons. Firmware also controls autofocus, exposure, image processing, noise reduction and other important functions within your camera. Without firmware your camera would not be able to operate.

Why check for firmware updates?

Updates generally contain fixes or feature enhancements. Firmware updates aren't always necessary – some cameras never have updates.

When a new camera is assembled the manufacturer loads the firmware that was designed at that time. After the camera has been released to the public, people may find that there are bugs or problems with the way the camera operates. The manufacturer investigates these problems and produces fixes for them in the form of firmware updates. Some of these fixes can be minor, but some of them fix more serious issues such as autofocus problems, battery-draining issues, or the camera unexpectedly locking up.

Other reasons why firmware updates are released is to include new camera features such as added languages, or to have manually adjustable settings that were once solely automatic. Some updates are to support new optional accessories for your camera (e.g. wireless functions or GPS modules, etc.). I like to think of them as free upgrades to your camera.

When to check for firmware updates?

I recommend checking for updates on a semi-regular basis, every few months or so, and after you

purchase a new camera is also a good time to check. There will likely be fewer firmware updates for older cameras but still worthwhile checking, perhaps on an annual basis. If you have never checked your camera for a firmware update then now is a good a time to do so.

Does your camera have the latest firmware?

First check what version of firmware your camera is running. This information is found within one of your camera's menu options.

Finding it is different on every camera and not always obvious. Your instruction manual will help you find where to look in the menus.

You can check for the latest firmware by looking at the manufacturer's support and downloads section of their website for your brand and model of camera. Look for higher version numbers than the one found on your camera. If the version numbers are the same, there is no need to perform an update. Please note that some camera models never had new or updated firmware released and therefore new firmware updates may not be listed at all.

Important: You need to know the model of your camera and only use the firmware that is specific to your model.



Why read the instructions carefully before updating your

These are our Sponsors, we need to use them if we want to keep them.



Links of Interest:

Viewbug - <http://www.viewbug.com/>

ePHOTOzine - <http://www.ephotozine.com/>

Federation of Camera Clubs [NSW] - <http://www.photographyNSW.org.au/>

Australian Photographic Society - <http://www.a-p-s.org.au/>

Gurushots - <https://gurushots.com/>

Free Lessons with Serge Ramelli - <http://photoserge.com/free-lessons/all>

cameras firmware?

Read the instructions very carefully before updating the firmware on your camera – you don't want to end up having a dead camera! If the battery fails during the firmware update or the update is interrupted in some manner, the risk is having a camera without usable software. Meaning you have a dead camera that you have to take to the manufacturer to fix!

How to find out what has been fixed or updated with the new firmware?

Check the release notes that come with the firmware updates. Usually you will find included a list of the fixes or updates in earlier versions of the firmware too.



Typical steps to update your cameras firmware*

** Sample only – Please read your own firmware update instructions for your camera model*

1. Check the firmware version on your camera – it will be shown on one of the menu options
 2. Check to see what the latest version of firmware is available for your camera on the manufacturers web site
 3. Read the instructions carefully
 4. Download the firmware
 5. Install a fully charged battery into your camera
 6. Format a memory card in your camera (read your manual if you aren't sure how to do this)
 7. Place that memory card into a card reader connected to your computer (do not connect via a cord from the camera)
 8. Copy the firmware update file into the top-level (root) folder of the cameras memory card
 9. Safely eject the card on the computer
 10. Place the memory card back into the camera (remember to power off the camera any time you remove a card or open the slot door)
 11. Follow the instructions to update the cameras firmware
 12. Unless instructed to do so, don't touch any buttons, or switch the camera off during the process
- Check to see that the camera is running the newly installed firmware version – as per the first step

If you have a Nikon

Some Nikon DSLR cameras may have A, B and L firmware – what are these? Nikon A-firmware is for the I/O (Input/Output) processor, B-firmware is for the Control (“Expeed”) integrated micro-controllers and L-firmware is for lens specific updates such as correction for lens distortion. You need not know why they have this scheme, just know what version is the latest for your camera model and use that to keep your camera up to date. Other camera manufacturers generally have just one firmware version to install.

<https://digital-photography-school.com/updating-cameras-firmware-important/>

Easy Camera Settings for Street Photography

By: James Maher

Street photography is one of those practices that is very tough to get right technically at first. Everything happens so quickly, hand-eye coordination is so important, and of course, there's the fear involved in capturing people in candid moments without their approval. While it may seem like you just have to wait for the right moments to occur and get lucky, the reality is very far from that.



However, the irony is that while the technical aspects are very difficult at first, eventually they will become second nature, and the real difficult aspect will be finding those interesting and inspiring moments. Those moments don't occur very often, and when they do you have to be fast enough to see and capture them. So if you don't have the fundamentals down, it will be tough to get to the next step.

Here is how I approach my camera settings so I can then forget about them and just shoot.

The first step

The first step always involves the light. You cannot figure out how to set your camera if you don't first understand the light. How strong is the light? Is it a sunny day or a cloudy day? Is it evening? Are you in New York where tall buildings will create dark shadows no matter how bright it is or are you in an area with much smaller structures?

Get in the habit of looking at the light when you first walk out to shoot and don't stop noticing it.

A couple quick thoughts

To freeze motion in people, I like to use 1/250th of a second as a base number for the shutter speed. That number or faster and there will be no motion blur in people. You can go down to 1/160th or 1/125th at dusk or night if you need to and you should be okay, but slower than that and you risk motion blur (unless you want motion blur of course).

For the most part, I like to use a small aperture (large depth of field) between f/8 and f/16 when I can. Sometimes I have to shoot at f/2.8 due to the light, or it will look pleasing for certain shots, but I always prefer to use as small an aperture as possible to make sure enough of the scene is sharp.

With fast moving scenes you will often miss the focus slightly, and with a large depth of field, this will mean that the shot will be saved in these cases. In addition, there will often be scenes with an interesting background (context can be very important for street photography) or multiple subjects at different depths. With a small aperture, you will have to worry less about getting these subjects sharp.

To have a fast shutter speed and small aperture, unless the light is incredibly strong, you need to raise your ISO. Don't be afraid of this – the grain/noise looks fine and it will be more than offset by your photos being a lot sharper in general. I typically use ISO 400-800 in sunlight, 800-1600 in light or dark shade, and 1600-6400 at dusk into the night.

Aperture Priority versus Shutter versus Manual Mode

The next step is to choose Aperture Priority, Shutter Priority, or Manual mode. If you are comfortable and good with any of these modes, you can use them for any situation. But I find it beneficial to switch modes depending on the situation.



Aperture Priority

When there is medium to strong light, I always use Aperture Priority. The reason for this is because I want to be able to set my camera and forget about the settings. With the settings out of the way, you are free to enjoy yourself and to focus on the content.

If the light is fairly even, you won't have to worry much. But on sunny days, particularly in New York, there is a huge contrast between the sunny part of the street and the shady part. So it's a pain to change your settings every time you go from one to the other.

So what I will do is set my camera to the ideal settings for the shady side of the street. This means that I usually set my camera to around $f/8$ or $f/11$ (sometimes $f/5.6$) and ISO 800 (you can tweak these depending on how dark the shady side really is). This will allow for at least a $1/250$ th of a second shutter speed in the shade.

The trade off is that when you point your camera toward the sun, ISO 800 is a little higher than you would normally use in that situation. But the added grain is fine, and it allows you to seamlessly go back and forth between lighting situations. Your shutter speed will be something crazy fast like $1/2500$ th or so. But that will mean that at least your subjects will be super sharp.

Shutter Priority

On shady days or at darker times of day like the early morning or evening, I will set my camera to Shutter Priority and $1/250$ th (sometimes $1/160$ th or $1/125$ th at night). This will guarantee that motion is frozen, unlike shooting on Aperture Priority, when the camera will sometimes go below that threshold to let in enough light. It is hard to always pay attention to that. I will then set my ISO accordingly from 1600 to 6400 depending on how dark it is. The reason for this is to make the aperture as small as possible, even though at night you often will have to shoot wide open.

The reason why I don't shoot Shutter Priority on sunny days is that so much light is hitting the camera if I am shooting at $1/250$ th or even $1/500$ th and ISO 800 in the sunlight, my aperture will need to be $f/32$ or $f/64$. My lenses can't go smaller than $f/16$, so that creates a problem and forces me to have to change the settings when I go from sunlight to shade.

Mode

If the light is very consistent, or if you are very good with using Manual mode, you can, of course, use this setting. With consistent lighting, it's easy to choose your settings and forget about them. However, if the light is not very dark I usually just prefer Aperture or Shutter Priority.

The time when I will use Manual Mode is often at night. That's when it is so dark that I need to choose the minimum settings possible to freeze a scene and get it sharp, usually $1/125$ th and $f/2$, or sometimes indoors, where the lighting is usually pretty consistent. For in-



stance, on the subway system, I will usually choose Manual mode and shoot at 1/250th and f/2.8. Consistent lighting is where Manual mode shines.

Conclusion

So study this, go out in different lighting situations and test out the different settings, and make this second nature. Once you do, then you can forget about it and focus on what is really important – taking photos.

<https://digital-photography-school.com/tutorial-easy-camera-settings-street-photography/>

Basic Night Sky Photography



Welcome,
Have you ever tried to capture images of the night sky, the milky-way, an Aurora? In this post I'm going to write about some of the very basics to get you started with photographing these subjects. These basics once learnt and practiced are the foundation for shooting amazing images at night.

Firstly it goes without saying you are out at night, it's cold its dark. Make sure you have some sort of lighting, I use led

lenser torches and black diamond head torches, both are awesome and have never let me down. Make sure you wear warm clothes. It gets extremely cold in the early hours of the morning, pants particularly aurora hunting pants are a must! a jacket is a good idea too. Lastly take someone else out for safety, you are out in the dark with expensive gear, enough said, its important!

WHAT BASIC CAMERA EQUIPMENT DO I NEED?

- Almost any modern digital camera is capable of shooting the night sky , a lot of point and shoots are too if you know the basics.
 - A tripod, keeps everything stable.
- A lens, preferably a wide angle to start with.

LET'S TALK ABOUT CAMERA GEAR AND HOW TO USE IT.

Camera's capable of high iso are important, you want to be using something that is capable of at least 1600 ISO. Typically you will be using 1600 – 6400 ISO. This is one factor in capturing enough light to show the stars, the Milky-way an Aurora.

Lenses Fast lenses are useful for Night Photography, a lens with f stops such as f1.8, f2, f2.8 help by allowing more light to the sensor, see a theme? You can use any focal length but a wide angle is

Continue Page 10

Back Button focus technique



There are some situations when you try to focus on a subject and the camera takes some time before you can fully press the shutter release button. Alternatively, when you want to take photos in **Burst Mode** the camera misses focussing on a few shots. You can eliminate these issues and achieve accurate focus by using the back button focus method.

The **Back Button** focus technique allows you to assign a button placed on the rear side of your camera to focus, and the shutter release button when pressed fully, captures the image.

While using this technique, you will realize that on pressing the shutter release button halfway, nothing happens. This is because another button using your thumb is now controlling the focusing.

Check your camera manual for instructions on doing the above.

The Golden Hour App for Photographers

Just about all of us like to take pictures during the Golden Hour—the time with the most beautiful light. So it's really practical to be able to check your phone to see when the sun will set, when the Golden Hour will start, or when the Blue Hour will end.

APPLE <https://itunes.apple.com/us/app/alpenglow-sunset-weather/id978589174?mt=8>

ANDROID https://play.google.com/store/apps/details?id=com.simplaapliko.goldenhour&hl=en_AU

the most useful and we will get to why in a minute. (see the 600 rule). A lens such as the Samyang 14mm f2.8 is a great option to get you started.

Tripod A solid tripod is a must! It gives you a solid base for your camera. Don't skimp here with a cheap tripod, you will be disappointed with blurry images. Things such as wind, vibrations from waves etc can cause slight movement that effects the sharpness of your pictures. A good tripod can help you avoid this, even in strong winds.

THE 600 RULE

The 600 rule is extremely important in photographing the night sky if you want to have nice sharp stars with no trailing.

The 600 rule is simply 600 divided by the true focal length of your lens. This gives you a guide to the longest shutter speed you can use without star trailing, so you get sharp stars.

By true focal length I mean the focal length, I mean the focal length if used on a full frame camera. So if you are using a cropped sensor camera you need to this into account.

FOR EXAMPLE

A Canon 1200d has a crop factor of 1.6x so a typical 18-55 kit lens becomes approx 28-90mm.

$18\text{mm} \times 1.6(\text{crop factor}) = 28\text{mm}$

$55\text{mm} \times 1.6(\text{crop factor}) = 90\text{mm}$



That is how you come up with the true focal length of your lens on a cropped sensor (aps-c) body.

So here is how it works for our combo of Canon 1200d and 18-55mm kit lens at its widest end of 18mm.

$600 \text{ divided by } 28 = 21.4 \text{ mm}$
so the longest shutter speed you use is 21 odd seconds without star trailing.

Lets have a look at say the 14mm lens on a full frame Canon 6d.

$600 \text{ divided by } 14 = 42.8$, that gives a shutter speed of around 42 odd seconds, double of what you can use on the other combo.

Lets have a look at the normal 50mm lens on a full frame 6d.

$600 \text{ divided by } 50 = 12$ that means we can only use a shutter speed of 12 seconds.

Typically you would want to use a shutter speed slightly faster than these examples for

really sharp stars. This is where a lot substitute 500 for 600. **(the 500 rule)**. Although these are called "rules" think of them more as a guide of where to start with your shutter speeds.

As you can see a wide angle lens allows you to use a longer shutter speed to get sharp stars with no trailing, this has many advantages. But for now lets just say you can let more light in to help capture the night sky with the wide angle because you can open up the shutter longer and still get sharp stars!

SO LETS PUT IT ALL TOGETHER.

You are on the beach trying to capture an Aurora or cracking shot of the milky-way with your Canon 1200d and 18-55mm kit lens and Tripod. You are trying to fit in as much as you can.

Remember we have a cropped sensor body and need to take that into account.

In **manual mode** with your camera on a tripod.

Set the camera at it's widest end, 18mm.

We want to use a shutter speed of 21 seconds (remember crop factor, the 600 rule and our other shutter speed from the example) so we set that.

It is super dark and we want to capture as much detail in the sky as possible so we set our ISO at 3200 ISO

Lastly we set our fastest aperture, which in this case would be f3.5 on this particular lens.

There is our basic settings to start with and still get sharp stars with the Canon 1200d and 18-55mm combo.

18mm, 21 seconds, 3200 iso, f3.5

This may be too bright or too dark so we may have to use a higher iso such as 6400iso or a lower iso such as 1600iso.

HOW DO I FOCUS.

There is a couple of ways but you need to put your lens in manual first, using the switch on the lens barrel.

If you have a lens with a depth of field scale and an infinity mark you can focus your lens so the infinity mark meets up with the mark on the lens barrel, sometimes this takes a bit of tweaking to get perfect focus on the stars.

Or you can use your cameras live view. With your camera in live view point the camera towards a bright star, zoom in on the star on the live view screen (do not zoom in using the lens, only on the screen). Now turn your lenses focus ring until the star is sharp. This really is the best way to get sharp stars.

Recompose your shot if needed.

If you don't bump the focus ring you will not need to do this every shot, but I do recommend checking the focus often. I personally check every time I recompose a shot.

Here is a few more tips.

- use the 2 second timer on your camera or a cable/remote shutter release. This helps avoid camera shake due to you touching the camera.
- If you have problems with your lens getting fogged up use a cheap disposable hand warmer held to your lens with an elastic band. This is really effective.
- If you are chasing Aurora in Australia you need to be facing south, the aurora is always south.
- The best time to shoot the milk- way or Aurora is when there is no or very little moon, a full moon easily overpowers.

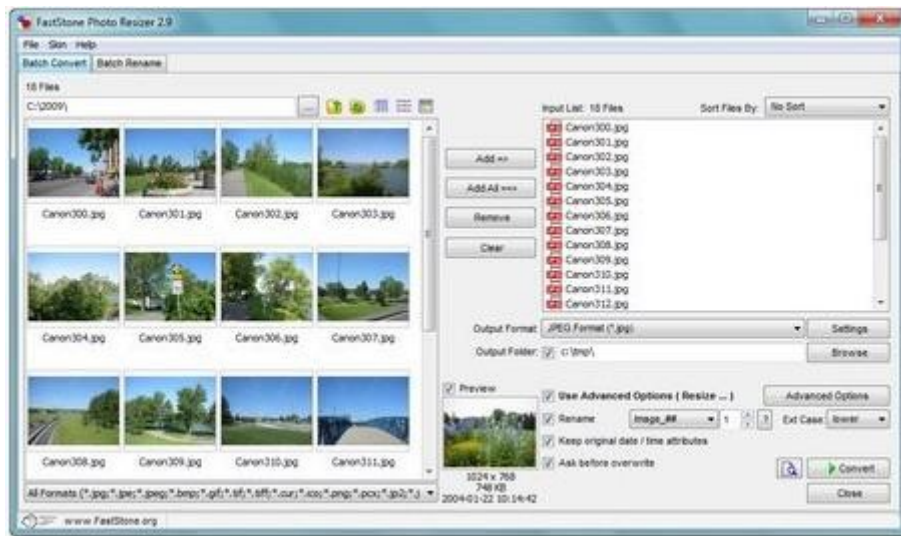
The more you get out there and practice the better you will become you will start to understand things like how the moon can help your your images by lighting foregrounds etc.

Remember these are the very basics to help you on your way to photographing the night sky, good luck!

<http://gippslandimages.com.au/basic-night-sky-photography/>

FastStone Photo Resizer 4.0

FREE



FastStone Photo Resizer is an image converter and renaming tool that intends to enable users to convert, rename, resize, crop, rotate, change color depth, add text and watermarks to images in a quick and easy batch mode. Drag and Drop mouse operation is well supported.

Convert and Rename images in batch mode

Support JPEG, BMP, GIF, PNG, TIFF and JPEG2000

Resize, crop, change color depth, apply color effects, add text, watermark and border effects

Rename images with sequential number

Search and replace texts in the file names

Preview conversion and renaming

Support folder/non-folder structure

Load and save settings

Support multithreading. i.e. process multiple images simultaneously for better performance

<http://www.faststone.org/download.htm>

YouTube video Tutorial

<https://www.youtube.com/watch?v=Q8TUmJmg9F8>



The most confusing setting in photography is the Aperture setting.

The Aperture is one of the settings that allows us to control how much light we capture when taking a photo.

The aperture is an opening in the lens, and you control how much light enters the camera by changing the size of that opening.

But what's confusing as all get out is the numbers used to tell you how big (or how small) that opening is.

Let's take a look at the aperture scale.

1.4 1.6 1.8 2 2.2 2.5 2.8 3.2 3.5 4 4.5 5 5.6
6.3 7.1 8 9 10 11 13 14 16 18 20 22 25 29 32

These are numbers that you'll see on your camera when you change your aperture, and depending on your camera, the number may have an "f" in front of it.

This number indicates the size of the aperture, and is sometimes called the "f-stop" (which is why it has that "f" in front of it).

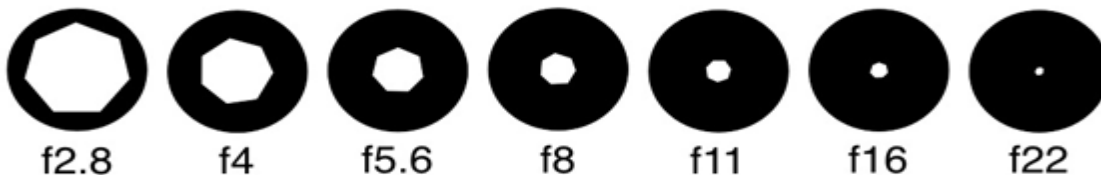
This is confusing because the term "f-stop" is easy to confuse with "stop", another photography term that means something entirely different.

A stop is how we measure the change in light in an exposure, while f-stop refers to the current aperture setting.

(Because this is confusing I'll just call it the aperture.)

The second reason the aperture number is confusing is because of what the numbers mean.

With your aperture setting, the lower the number is, the larger the opening is, and the more light you will let into the camera.



So if we're looking at different aperture settings, that means that an aperture of f4 lets in MORE light than an aperture of f11.

This seems stupid, because in our minds, a larger number would seem to indicate that you have a larger opening and are getting more light.

It's because of how the aperture number is arrived at. There's math involved in figuring it out, but don't worry, you don't need to know how it's calculated, **all you need to know is that a lower aperture number means a larger opening, which also means more light.**

But, knowing how it's calculated can be helpful in understanding the aperture setting, especially when it comes to depth of field. Your aperture setting plays an important role in controlling your depth of field.

spyros@selfhelpphotographer.com

Photos from the Training Session “ Portraits”.



By Tessa Lee



By Tony Long

Thank you to these two for sending in their Best Photos .



'At this point I must remind visitors, no photography in the royal bathrooms.'

We are on the web !!

www.daptocameraclub.org.au

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