

# DIGITAL PHOTOGRAPHY

+ EXPENDING ALL THE EFFORT TO GET A BUNCH OF GREAT SHOTS IS VERY REWARDING. BUT SHARING YOUR PICS WITH OTHERS IS ANOTHER VERY SATISFYING EXPERIENCE. WE CAN'T ALL SPEND THOUSANDS OF DOLLARS MAKING HUGE MURALS OF OUR IMAGES, SO WE'LL LOOK AT A FEW WAYS TO SHARE YOUR IMAGES WITH MINIMUM OUTLAY AND MAXIMUM SATISFACTION.

**TV** Most "point and shoot" cameras can be connected to your TV via a supplied cable. Check your manual to find out if your camera has this capability. This is a quick and nasty method of displaying your images but is better than having 10 divers squinting at your camera's LCD screen. Follow your manual's instructions to get it all up and running.

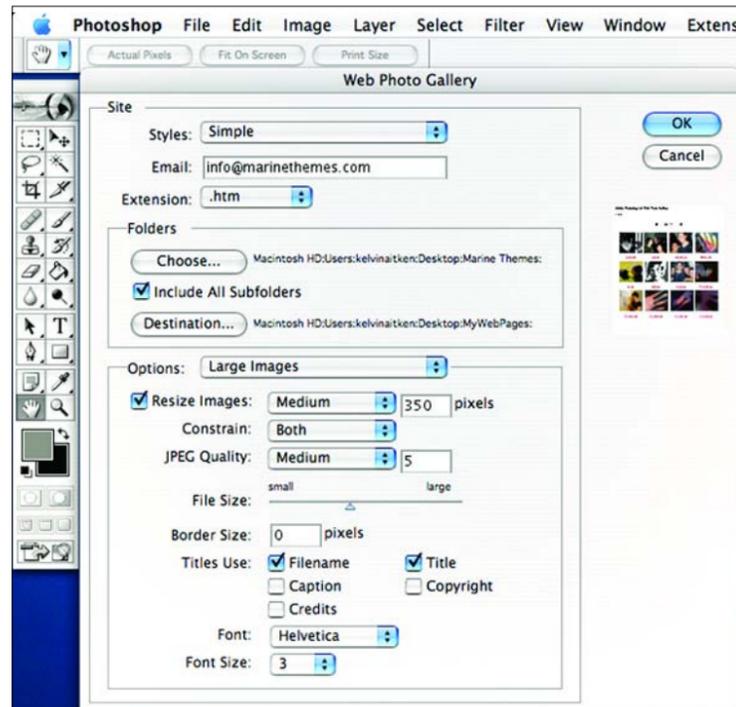
The problem with this simple method of displaying your images on TV is that you are skipping that most vital of steps to successful photography: editing. You are forced to show all your "success challenged" images along with the gold medal winners. The obvious solution is to delete all of the "lesser" images but this is fraught with danger. You are far better off saving and backing up everything then editing a selection for display.

Copy all of the images to your computer then burn them onto a backup disc. Then use whatever image editing method you have to sort out the wheat from the chaff. This may be as simple as opening the folder containing your images and viewing them as thumbnails. If you shot in RAW format (which you should) you will need to use either your camera's software or a RAW format viewer such as Photoshop. Setting your camera to save both RAW and a small jpg at the same time will make this process much less painful.

Be ruthless. You are what you show. Remember, you have a backup so you can always retrieve any of the deleted images later. Once you have your final selection you can copy them back onto another card or format the card you were using and dump the selection back onto it, ready for display using the camera/cable/TV set-up.

For a much better viewing experience you should use your computer (a laptop is ideal for this) to display the images on your TV. You can not only edit out the junk but also optimise the images for TV viewing. When you connect your laptop to a TV, usually with an adaptor and RCA cables, the TV will be displaying a view of your desktop, so for best results the image should fill the screen. If you are using a Windows operating system, you can open the folder with your images and use the window View menu to show thumbnails and also run a slide show of the window's contents. Mac users are provided with iPhoto which is a fairly powerful image organising application which can run slide shows of selected folders, even adding one or more music tracks from iTunes, all of which will emanate from your TV.

Like computer monitors, TV screens come "uncalibrated". Just go to your local electronics store and look at all the different colour, contrast, saturation and gamma (mid tone brightness) settings on their wall of TV's. On one TV Sergeant Schultz looks bright red and contrasty, on another screen he looks flat and washed out. It is not the TV that is at fault, nor is it a conspiracy by the inmates of Stalag 13, but is the consequence of random factory settings applied to the monitors. A cheap and nasty monitor with a high profit margin can be made to look much better than a higher quality monitor with a small profit margin just by tweaking the colour settings. Caveat Emptor. Use your TV controls to adjust the colour settings to display your images as close to your computer screen as possible.



WebPageMaker: No need for html skills, Photoshop can make up instant web pages with a few text lines for your page title information, thumbnails, larger previews with captions. Just choose a folder of images, a destination to put them and all the rest is taken care of rapidly and pain free.

**PROJECTORS** The next step up from a TV is a digital projector. They were horrifically expensive, now they are only prohibitively expensive. Convince your boss that the company needs one or hire one for your club night. You can now buy very small, lightweight digital projectors with much better colour fidelity than the heavy colour shifting monsters of 5 years ago. That said, you must realise that a calibrated computer monitor will do a much better job of displaying your images than both a TV or a digital projector. However they still do a fine job with technology improving flat screen TV's and digital projectors each new generation. For showing your images to large groups a projector is the best option.

Connecting a projector is similar to connecting to a TV. Usually there is a cable with a VGA or similar connection that will either plug directly into your desktop computer or laptop. Turn on your computer and projector and after a brief warm up time your computer screen will appear projected onto your wall or screen. Some projectors have software adjustments that can be made to reduce or eliminate distortion caused by the projector being out of square from your screen. A better method is to physically raise the projector and adjust it's position so that it is directing the image square to the screen. Use the software adjustments to fine tune the image.

Like a TV, a projector shows your entire computer screen so it is best if your images are sized or displayed to fill the screen. If your viewing software does not do this for you, you will need to adjust the image size in Photoshop, Elements or other similar image editing software such as your camera's software. Find out the pixel dimensions of your screen and resize the images to those dimensions at 72 dpi. On Windows machines your screen resolution can be found under Start>Settings>Displays, while on a Mac it will be in System Preferences>Displays (available from your Apple logo at the top left of your screen.) A common pixel size of a display is 1024 x768 pixels though yours may be different.

If you need to adjust the brightness, contrast or saturation of the projected image you will need to make those changes on the projector. It is not really showing your desktop, it is displaying the signal that is going to your desktop. Changing the brightness of your screen will not make any difference to the projected image as you are changing your physical screen's settings, not the signal

screen. Check the projector's manual to find out how to do this, or, if you are a typical male, poke around with all those shiny buttons on the top and sides until you hit the jackpot.

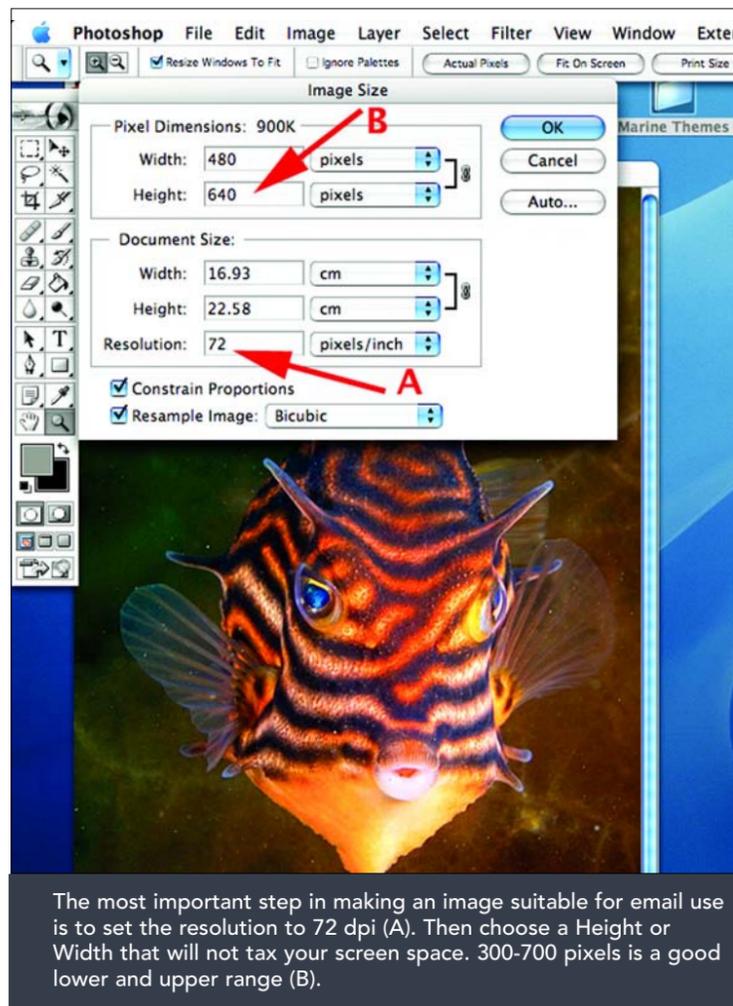
If you want to share your images with friends or relatives, you can also make a movie of your slide show, burn it to disc and drop it in the post. There are lots of software options that you can use to do this. Freeware or supplied software (such as iMovie on the Mac platform) will work (iMovie is very simple, intuitive, powerful and free) but if you want to get really fancy you may need to use a video editing package to introduce all those fancy cross fades, transitions, music, titles and other text. I must warn you that once you start fiddling with this process your youth can pass by rather quickly as you spend hours locked away in a dark room poking away at your artistic creation, a labour of love which may not be fully appreciated by your intended recipient.

When burnt as a DVD it will (check your software to be sure and test early and often) play through any DVD player. Great to run in the background during your next club barbecue and much better than the dive training DVD you had last time.



iMoviePic: A number of software applications enable you to create fancy slide shows, from the simple windows folder view to advanced packages, such as iMovie, which give you transitions, titles, music and more.

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The most important step in making an image suitable for email use is to set the resolution to 72 dpi (A). Then choose a Height or Width that will not tax your screen space. 300-700 pixels is a good lower and upper range (B).

**INTERNET** There are a vast range of options to display your images on the ubiquitous internet or World Wide Web. Usually you are supplied a limited amount of server space when you join an Internet Service

Provider. Or you can use a service such as Flickr ([www.flickr.com](http://www.flickr.com)). To use Flickr you do not need any experience in creating web pages, just join up (it's free) and follow the instructions. The more you pay, usually the more freedom and power you have to display your images in any manner you want. The ultimate is to buy a domain name, such as [www.diverdan.com.au](http://www.diverdan.com.au), and pay an ISP (internet service provider) to host it for you. You can then create web pages, slide shows, image galleries, text pages, etc and upload them onto your site for access by the massive internet community. Some sad individuals with a desire to keep the world informed of their activities even run a blog (short for "Web Log") such as my good friend Tony Wu (<http://www.tonywublog.com>)

One of the nifty features of Photoshop and Elements is the ability to create a complete image web gallery from a folder of images. If you add caption information into the File Info dialogue box, (Image>File Info) Photoshop will add that information as a caption or title to the images. A few button clicks and you have a folder containing all of the elements needed to upload onto your web site. Create a link on your home page to the index.htm file and you're away laughing. An example can be found at [www.kaphoto.com.au](http://www.kaphoto.com.au) just click on the Gallery link. All of the web pages, images and text were created simply and quickly in Photoshop. They are fairly simple html pages

but you can also create Flash animated slide shows and galleries using the more recent versions of the above Adobe software packages.

If you don't own Photoshop or Elements you can find free software on the internet to do this. Go to [www.google.com](http://www.google.com) and do a search for "free photo gallery software" and prepare for a few hours, days or weeks of geeky fun.

**EMAIL** Possibly the more common method of sharing images over the internet is via email. Type up a note, attach an image or images and click Send. Doing this with a RAW file or untouched jpg image straight from your camera may cause a few problems such as the email being rejected by the receivers server or you being rejected by your friends for sending a 3 mb file which has to be scrolled around on the screen to see a close up of your nostrils as you sit grinning inanely on the back deck of the dive boat. I am sure that most of you have received an email with an image that is far too big for the screen. The solution is very simple.

To create an image suitable for email transmission the original image file must be resized. As mentioned in earlier articles in this series, an image has two aspects which affects it's physical dimensions when displayed on a computer screen. The first is the dots per inch or dpi (also known as pixels per inch or ppi) and the pixel dimensions. My laptop screen has 1024 pixels across and 768 pixels down. So any image file that is larger than this in pixel dimension and higher than 72-90 pixels per inch or dpi will be larger than the screen. Web browsers are very basic image viewers. They have very limited ability to interpret images and have no colour profile reading abilities. So, just as you would talk in clear, simple sentences to a child, you need to provide an image file that will display without too much effort on the part of the browser or email software.

Do this: Open your image in your image editing software. Change the dpi to 72 dpi and adjust the pixel dimensions with

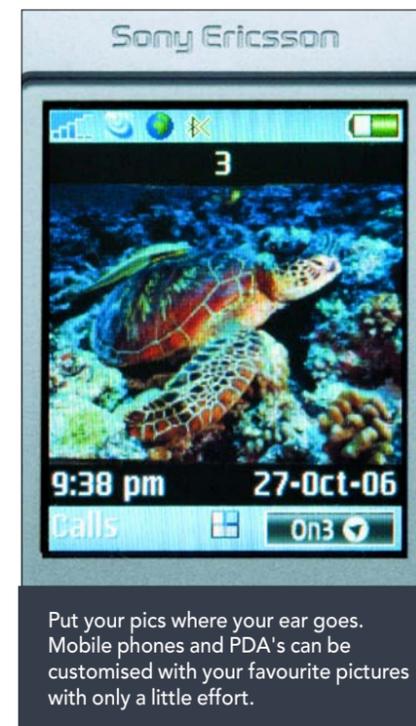


Laptops and desktops either come with connections for TV and projector use or an adapter will be supplied. This is an RCA adapter used with the tricolour RCA cables, though only one cable is necessary. The other is a VGA adapter for projector use.

the longest side set to 640pixels (i.e. a horizontal image should be 640 pixels wide or a vertical image would be 640 pixels high). The shorter side should change automatically in proportion so will be around the 400-500 pixel range. In Photoshop or Elements this can be done with Image>Image Size or you can use the crop tool with the width, height and resolution options set to the above. If a major change in image size is made from the original (and I suspect that this is the case) then you should then zoom the image to 100% on the screen and apply a bit of sharpening to clean it up. Check that the image mode is 8 bit (Image>Mode>8 bit) then save as a jpg set to medium or low compression setting. In Photoshop level 3-5 should do the job. You should end up with a file that is 80-100kb in size, about 1/10 or less of a megabyte. Nice and small in size but large enough to be big and bold in your email without being cropped off or your viewer having to scroll around the image to see it all.

Fiddle around with the pixel dimensions to make smaller or larger images. Remember that most screens are around 1000-2000 pixels in width so you will want to make your email images less than that on their longest side.

Another fun way to use your underwater pics is as a wallpaper on your computer or phone. To make computer wallpaper, find out your screen's pixel dimensions, create



Put your pics where your ear goes. Mobile phones and PDA's can be customised with your favourite pictures with only a little effort.



**K**elvin Aitken is a Melbourne-based professional photographer and diver passionate about the big blue and the big sea creatures to be found out there. He's dived from the Arctic to the extremes of the South Pacific and if there's a new marine dive adventure to be experienced or invented, he's always the first to put up his hand. He's also dived the southeastern Australian continental shelf and photographed shark species nobody knew would be found out there. Kelvin is a BBC Wildlife Photographer of the Year marine category winner and his unique work is on [www.marinethemes.com](http://www.marinethemes.com)

an image file to fit at 72 dpi and save in your pictures folder. Use your computer's operating system to set the desktop to your new photo. Instant art and a great talking point with your friends and family. To display the same image on your phone, you need to create an image file with the same dimensions as your phone screen, save as a jpg then upload onto your phone, usually to a Pictures folder via a cable that came with your phone. Check your phone's manual to find out how to change your screen to your image file.

There are lots of other fun (and profitable) ways of sharing your images. For example, you can buy transfer material that is fed through your colour printer. Print out your favourite image of your buddy about to be dacked by a seal and print it out on a T-shirt for all the world to see, along with a suitable caption of course.

These are just some of the ways that you can share your digital images with your friends, family and fellow divers. As mentioned at the outset, there is an enormous amount of satisfaction from capturing a great image, but there is a whole world of pleasure in sharing it with others.