

## The Digital Darkroom What you need to preview, print, edit and store digital images

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ow that digital cameras have established a firm position in underwater photography, photographers want to venture beyond taking pictures. They want to know which computer, software and accessories to buy, and how to preview, edit, print and store images.

The workflow in a digital darkroom consists of three parts: input, editing and output.

The digital input comes from one of two sources — a scanner or a digital camera file. Purchase a film scanner with at least 3072x2048 pixel resolution. We highly recommend a scanner that incorporates the Digital ICE (cubed) technology, which removes scratches, reduces grain and color-corrects images as they are being scanned. Add a bulk feeder for high volume needs.

Most digital cameras come with a communication cable that links directly with the computer via USB or Firewire. We don't recommend using those cables as most are not easily recognized by computer systems, and they are typically unreliable. The best solution is to add a memory card reader. This \$25-\$50 device attaches to the computer via USB, but acts like a floppy or Zip-drive. Try to find one that takes a variety of memory card types.

Your computer editing system should have a fairly new processor with high processing speed (1 gigahertz is recommended) and at least 256 megabytes of RAM.

We also recommend two hard disks one for your operating system and programs and another for your photos and data. Since you will constantly be writing files to the data hard disk, having two drives will insure that program files aren't accidentally overwritten.

You should include either a CD or DVD writer in your computer system, so you can archive images for long-term image storage.

A critical part of the digital darkroom is

the monitor. You should have at least a 17inch or larger monitor so you can see the small details. A monitor calibration system, such as the Adobe Gamma Loader that comes with Adobe Photoshop, should be used regularly. Once you have the monitor calibrated, make sure no one changes the settings. Keep the light level in the room low and constant for all editing sessions for consistent results.

If you invest in one of the new highquality inkjet printers, you can print inkjet photos that rival the quality of traditional prints. Try to get an inkjet printer with at least 720 dpi resolution; 1440 or 2880 would be even better if you can afford it. If not, many of the larger cities have photo labs that now offer digital printing services. You just bring in your CD or memory card and they will make standard color prints from your files.

The digital darkroom has put image editing and printing back into the hands of the photographer.

Send questions to digitalduo@jackandsu edrafahl.com. Visit www.jackandsuedrafahl.com for workshops, seminars or to order our books, Digital Imaging for the U/W Photographer and Photo Salvage with Adobe Photoshop.