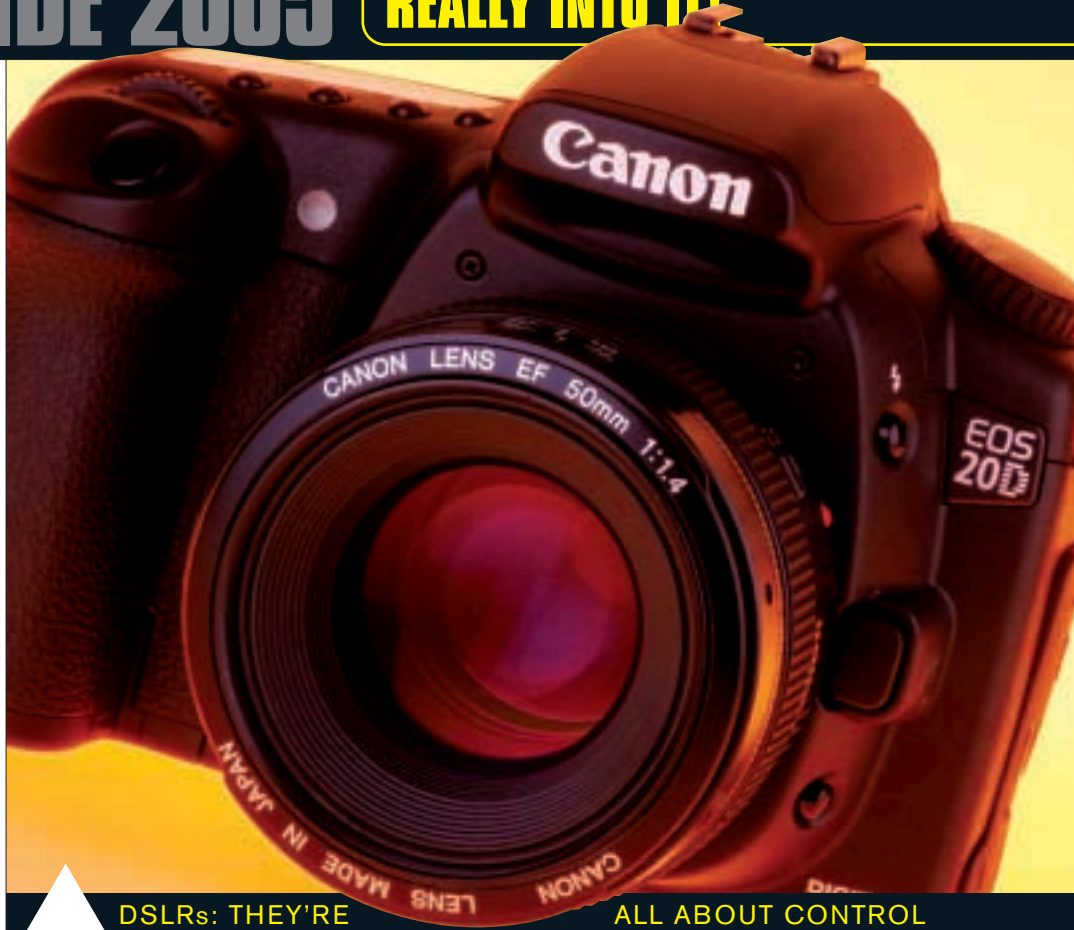


GEAR CHECKLIST

- DIGITAL SLRs
- VERSATILE LENSES
- FILM SCANNERS
- MONITOR CALIBRATION
- ENTHUSIAST SOFTWARE
- HOME LIGHTING KITS
- PRO-LEVEL FLASH
- WACOM TABLETS

You're really into it when you need a big camera bag to carry your normal kit, not just a belt pouch or fanny pack. We figure a lot of you fall into this category: the kind of people who plan vacations around photography, not vice versa, and who wouldn't think of going to a family party without an extra camera body, and a system flash, and maybe some slave units, and....



DSLRs: THEY'RE

ALL ABOUT CONTROL

Canon EOS 20D

\$1,499 street (BODY ONLY)
\$1,599 street
 (WITH 18-55MM F/4-5.6 EF-S LENS)

www.canoneos.com
800-652-2666

The 8.2MP Canon EOS 20D may offer the most bang for the buck, with the highest image quality and best overall performance of the bunch. It features a rugged magnesium-alloy body, super-fast AF, a blazing 5-fps burst mode, and advanced flash functions. Plus, unlike most compacts and EVFs, the 20D handles low-light shooting up to ISO 1600 without a dramatic increase in noise (a.k.a. digital grain). Downside: the APS-sized sensor means a 1.6X 35mm lens factor. **5.7x4.2x2.8 INCHES BODY ONLY • 1.7 POUNDS WITH BATTERY AND CARD**

Canon EOS Digital Rebel

\$799 street, body only
\$899 with 18-55mm f/3.5-5.6

+ Frustrated with the shutter lag and lens limitations of your compact digital camera? Tired of spending money developing photos you don't want from your 35mm SLR? If so, then it's time to get serious with a digital SLR. There are several advanced models ranging in price from \$799 to \$1,500 that give you nearly instant shutter response and a wide choice of lenses and accessories. They also deliver amazing image quality, advanced control features, fast focusing speeds, lower noise at higher ISO settings, and rapid-burst shooting modes.

EF-S lens

■ www.canoneos.com
■ 800-652-2666

The first digital SLR under \$1,000, Canon's EOS Digital Rebel is still a bargain despite stiff competition. It features 6.3MP resolution and extremely high image quality, a low-noise APS-sized CMOS sensor, a great AF system, long-life battery, and compatibility with all Canon EF lenses including the new EF-S lenses. OK, it lacks the custom functions and rugged body of the EOS 10D or 20D, and you get a slower burst capability, but you can't beat its price. **5.6x3.9x2.9 INCHES BODY ONLY • 1.4 POUNDS WITH BATTERY AND CARD • TESTED NOVEMBER 2003**

Konica Minolta Maxxum 7D

■ \$1,500 est. street, body only
■ www.konicaminolta.us
■ 877-462-4464

The long-awaited Maxxum 7D should be arriving in stores by the time you read this—we hope. This 6MP DSLR has a built-in anti-shake system that works with most Maxxum lenses (albeit with a 1.5X 35mm lens factor). Built along the lines of the 35mm Maxxum 7, it has advanced metering and exposure controls, white balance with manual color-temperature adjustment, Eye-start, and a fast AF system. Slightly pricey for a 6MP DSLR, but its Anti-Shake system will save \$\$ on image-stabilized lenses. **5.9x4.2x3.1 INCHES BODY ONLY • 1.7 POUNDS WITHOUT BATTERY OR CARD • FIRST LOOK OCTOBER 2004**



DSLRs



Nikon D70

\$ \$999 street (BODY ONLY)
\$ \$1,299 street

(WITH 18-70MM F/3.5-4.5G DX LENS)

www.nikonusa.com
800-645-6689

This 6MP DSLR packs features well above what you'd expect from a sub-grand camera. Its image quality, body design and construction, fast AF system and startup time, rapid 3-fps burst rate, and custom functions are truly impressive. We wish only it included Nikon's \$99 Capture 4 RAW conversion software, and had better backward compatibility with older Nikon flash units. **5.5x4.4x3.1 INCHES BODY ONLY • 1.5 POUNDS WITH BATTERY AND CARD • TESTED JUNE 2004**

Olympus E-1

\$ \$1,300 street, body only
www.olympusamerica.com
888-553-4448

The 5MP E-1 makes up in pro features what it lacks in megapixels. The rugged magnesium-alloy body has splash-proof seals,



and a fast FireWire connector plus USB. Plus, it's the first DSLR to use a Kodak 4:3 format CCD sensor with ultrasonic dust removal. Image quality is impressive, with low noise, extremely high color accuracy, and advanced color-space and white-balance controls. Both Olympus' E-1 and the upcoming Evolt (see November 2004) use the digital-only Zuiko lenses (with a 2X 35mm factor). Missing: a pop-up flash and strong low-light AF. **5.5x4.1x3 INCHES BODY ONLY • 1.7 POUNDS WITH BATTERY AND CARD • TESTED NOVEMBER 2003**

Pentax *ist D

\$ \$1,240 street, body only
www.pentaximaging.com
800-877-0155

"Build it smaller, and they will come." For now, this 6MP Pentax is the smallest DSLR, but the new *ist DS will soon take that title (see this issue's "Hands On"). Big features, though: extremely high image quality and low noise at higher ISOs, a tough body with stainless-steel frame and magnesium-alloy



components, an 11-zone (nine cross-type) AF system, and a super viewfinder. But where are the rechargeable AA batteries? **5.4x3.8x2.9 INCHES BODY ONLY • 1.4 POUNDS WITH BATTERY AND CARD • TESTED JANUARY 2004**

Sigma SD10

\$ \$1,350 street, body only
www.sigmaphoto.com
800-896-6858

This improved (and lighter) version of Sigma's first DSLR, the SD9, is the only DSLR to use Foveon's X3 CMOS imaging sensor, which captures light in layers—similar to the way film works. The result is resolution equivalent to a 6MP sensor, extremely accurate color, and extremely low noise. The SD10 also has a fast FireWire connector, and a fast AF system with good low-light sensitivity. But it lacks multiple cross-type sensors and a pop-up flash. Also, there's no in-camera JPEG storage—all RAW files

must be converted on a computer. **5.9x4.7x3.1 INCHES BODY ONLY • 1.9 POUNDS WITH BATTERY AND CARD • SD9 TESTED FEBRUARY 2003**



REALLY INTO IT!

STABILIZATION

Canon 28-135mm f/3.5-5.6 IS USM

\$410 street
www.canoneos.com
800-652-2666

Are you shooting a Canon SLR? With an affordable price and useful focal-length range, Canon's 28-135mm f/3.5-5.6 IS zoom is worth a look. Its compact size, light weight, and quiet USM motor make it a favorite. Nikon fans have a 24-120mm f/3.5-5.6G VR and a 70-200mm f/2.8G VR, among others, while Sigma makes an 80-400mm f/4.5-5.6 optical stabilized lens in Canon, Nikon, and Sigma mounts.

DIGITAL

Nikon 18-70mm f/3.5-4.5 G-AFS DX

\$365 street
www.nikonusa.com
800-645-6687

Digital shooters whose camera's CCD is smaller than a 35mm frame quickly learn that a wide-angle optic ain't what it used to be. A 24mm lens, for example, may yield the field of view of a 38.4mm. Are you a Nikon digital shooter in need of wider views? Check out the 18-70mm f/3.5-4.5 DX. On D-series SLRs, it's the 35mm equivalent of a 27-105mm—a nice all-around optic. Similar lenses include Sigma's 20-40mm f/2.8, Nikon's 12-24mm f/4, and Canon's amazing new 10-22mm f/3.5-4.5.



MACRO

Pentax 100mm f/2.8 FA Macro

\$520 street
www.pentaximaging.com
800-877-0155

100mm or 105mm macros are so useful because: 1:1 magnifying power delivers great detail in smaller subjects; the tele-style extra working distance puts space between you and a skittish subject; and they're great focal lengths for portraits.



Once upon a time, experts promoted tripods as the accessory for sharper pix. Today, however, image stabilized (IS) lenses (or, in Nikonese, Vibration Reduction lenses) have assumed that role—the flash-free, tripod-free, and pain-free way to sharpness. Like tripods, VR lenses can deliver adequate sharpness at slower shutter speeds and increased sharpness at higher shutter speeds. First buy an IS lens, then invest in a tripod. That's the experts' mantra today.

VERSATILE LENSES: TOSS THE TRIPOD WITH ANTI-SHAKE

A favorite is the Pentax 100mm f/2.8 FA Macro. A large maximum aperture renders a bright viewfinder for easy focusing; its continuous magnification scale relays exactly what you're getting on film (or sensor); and a special locking mechanism will hold a specific focusing distance. **TESTED DECEMBER 1998**

HI-SPEED

Tokina 28-80mm f/2.8 AT-X

\$520 street
www.thkphoto.com
800-421-1141

High speed (i.e., maximum apertures of f/2.8 or faster) is a killer trait in a lens. A fast lens lets you use faster shutter speeds for sharp pictures sans tripod or flash, and they can defocus a background nicely. Tokina's 28-80mm f/2.8 AT-X is a good example of an all-around useful high-speed zoom. Offering wide to short telefocal lengths, it may be the only lens you'll need to work, say, a wedding reception. **TESTED SEPTEMBER 2000**



SIR LENS-A-LOT



Looking for one lens to do it all? Check out Tamron's \$400 (street) AF 28-300mm f/3.5-6.3 XR Di Macro. Featuring Tamron's Di (Digitally Integrated) design, which claims improved, flare-reducing coatings and tighter manufacturing tolerances, the compact and lightweight AF 28-300mm delivers an ample 10.7X zoom range, 1:2.9 maximum magnification, and a very tight 19.3-inch close-focusing distance at all focal lengths. Sigma, similarly, makes a comparable 28-300mm f/3.5-6.3 Macro.



Versatile Lenses



✦ Despite recent advances in flatbed scanners, the resolution, density range, and color accuracy possible with dedicated film scanners still make them the best way to turn your film and slides into digital images. And with USB Hi-Speed 2.0 and FireWire connections popping up even in moderately priced models, they're faster than ever. If you've got old, well-worn slides or film, you'll definitely want to try the automatic dust and scratch removal offered by Applied Science Fiction's Digital ICE, which is included with most film scanners in this class.

FILM SCANNERS: PUT YOUR FILM ARCHIVES TO WORK

Konica Minolta DiMAGE Scan Elite 5400

- \$650 street
- www.konica-minolta.us
- 877-462-4464

Konica Minolta's 5400-ppi DiMAGE Scan Elite 5400 impressed us with high resolution, accurate color, and fast speed when we tested it earlier this year. On color-negative film, it resolved 71.3 line pairs/mm, and turned in 83.9 line pairs/mm on black-and-white film. Color accuracy was rated excellent. Both USB 2.0 and FireWire connections ensure a fast file transfer, even with Digital ICE turned on. The only caveat? It's limited to 35mm, so you can't scan medium-format or APS with this speed demon. **TESTED JUNE 2004**

- Microtek ArtixScan 4000tf
- \$700 street
- www.microtekusa.com
- 310-687-5940

The ArtixScan 4000tf has an optical resolution of 4000 ppi, which should be enough to create tabloid-sized scans of your 35mm negatives and



slides. The scanner's D-max of 4.3 should ensure plenty of dynamic range, while the depth of 12 bits per color channel (42 bits total) should record a wide palette of hues. APS fans can spring for an optional APS roll cartridge, which enables batch scanning of up to 40 images at a time. Advanced scanners will enjoy the included SilverFast Ai 6.0 scanning software.

- Nikon Coolscan V ED
- \$600 street
- www.nikonusa.com
- 800-645-6689

Though considered entry-level for the Coolscan line, the V ED still has an optical resolution of 4000 ppi, plus a D-max of 4.2—not quite the 4.8 of Nikon's flagship 9000 ED, but still enough to pull plenty of detail out of dark shadows. Color depth is 14 bits per channel. Like all the Coolscans, the V ED includes Digital ICE, ROC, and GEM for automatic dust and scratch removal, color restoration, and grain removal. It won't do medium-format film, but an optional APS adapter is available.



Pacific Image PrimeFilm 3650 Pro3

- \$465 street
- www.scanace.com
- 310-618-8100

The PrimeFilm 3650 Pro3 is designed specifically to make quick work of 35mm film scans. A slot on the right side of the unit accepts entire rolls of 35mm film for scanning at up to 3600 ppi and, with Digital ICE enabled, you can automatically remove scratches and dust at the same time. The 3650 Pro3 has a generous color depth of 16 bits per channel (48 bits total), and an ample density range of 3.6. Both FireWire and USB 2.0 high-speed connections are included.

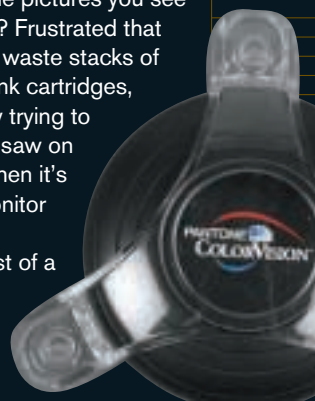


CALIBRATION 101



Ever wonder why the prints you made have wildly different color and tone than the pictures you see on your monitor? Frustrated that you're forced to waste stacks of paper, multiple ink cartridges, time, and money trying to tweak what you saw on your monitor? Then it's time to get a monitor calibrator.

Once, the cost of a monitor-calibra-



+ If you've made a commitment to shooting with a digital SLR or if you scan your film and print from your desktop, without Adobe Photoshop CS, you probably aren't using your technology to the fullest. It is, as everyone who uses the program's name as a verb knows, the mother of all image-editing programs. With the host of other software to complement it, you can do almost anything. Of course, Photoshop's the most expensive. Is it worth it? Absolutely. But with this caveat: if you don't want to learn to make it sing, save your Benjamins.

SOFTWARE: ANYTHING IS POSSIBLE

Adobe Photoshop CS

\$169 (PHOTOSHOP UPGRADE ALONE)

\$1,229 (FULL PREMIUM CREATIVE SUITE)

www.adobe.com
800-833-6687



Photoshop's super-sophisticated system of layers, masks, and blending modes makes it possible to do subtle (yet monumental) corrections and detailed composite work that's impossible (or at least way too tricky) to do in almost any other program. Add to the mix features that are nonexistent in most other editors: total color management (so you can work in all those color spaces your DSLR shoots in), near-full functionality with 16-bit images (so you don't waste the information your film scanner provides), support for the RAW file formats of the major camera manufacturers....We could go on. But the fact is this: Adobe

Photoshop has been and remains the image-editing standard. It is the finest precision tool for the photographer who is ready to take full control and produce the best images possible. **REVIEWED MARCH 2004**

Extensis Portfolio 7

\$99.95 to upgrade
\$199.95 for full version
www.extensis.com
800-796-9798

If you're using Photoshop to edit your images, you won't need an organizer padded with features for fixing them. Instead you'll need one that's dedicated to cataloging. Extensis Portfolio 7 is an excellent solution. Create catalogs and search by your own keywords or organize it all using EXIF data. The program can even be trained to classify your pictures. Link a folder with a set of keywords and each picture you add to the folder will be tagged accordingly. Portfolio does most of the complicated work for you, freeing you up to do more shooting and less searching. **REVIEWED OCTOBER 2004**



tion device was prohibitive. These days it's more expensive *not* to calibrate, since these tools quickly pay for themselves in saved paper and ink. The major brands work pretty much the same way: a device, connected to your computer, suction-cups itself to a CRT monitor or dangles before an LCD, while you run software that creates an ICC color profile for your screen.

We tested Pantone ColorVision's SpyderPRO and got a good result—perfect for the desktop printer who wants a marked improvement in color matching. The SpyderPRO offers more

flexibility with more sophisticated software than the lower-cost Spyder, but uses the same basic device. And, for the more dedicated user, there are two good options: X-Rite's MonacoOPTIX and Gretag Macbeth's Eye-One Display.

- **SPYDER & SPYDERPRO:** \$140 & \$230; www.color-vision.com, 800-554-8688
- **OPTIX:** \$270; www.monaco-cosys.com, 800-248-9748
- **EYE-ONE:** \$250; www.i1color.com, 845-565-7660

PLUG-INS

nik Color Efex Pro 2.0

\$100, Standard edition
\$100, Dfine
www.nikmulti-media.com
888-289-4085



Mystical Lighting

\$180 street
www.autofx.com
800-839-2008



Genuine Fractals Pro

\$50, LE edition
\$300, Print Pro
www.lizardtech.com
206-652-5211



pxl SmartScale

\$200 street
www.extensis.com
800-796-9798



Plug-ins are add-ons to image editors. They do not, for the most part, exist to do things that image editors can't, but instead to do specific things better and faster than image-editors need to. Whatever you want to do, if you're using Photoshop, there's probably a solution you could hammer out, but if that takes a lot of time and know-how, and you're short on both, try a plug-in.

So, say, if you've been trying to figure out how to mix channels to convert color to black-and-white (a process that can be both tedious and boring), nik's Color Efex Pro filter set including the black-and-white converter could be the answer. Or if you need to make poster-sized images, you might try a superscaler like Genuine Fractals Pro or Extensis' SmartScale. If you shoot a lot in low light, a noise-reducer like nik's Dfine could be just the thing. Maybe you often have to simulate lighting effects or alter the mood of an image; Auto FX's Mystical Lighting could come to the rescue. These are just a few that are out there. Because if you can imagine it, chances are there's a plug-in that can do it.

SP Studio System's Two-Light Excalibur Kit

\$420 street
www.bkaphoto.com
800-250-8394

Excalibur monolights are the Cadillacs of SP Studio Systems' many strobe lights. They're well-built, with user-interchangeable flashtubes, standard household modeling-light bulbs, and optical slaves. Best thing? Excalibur studio kits are amazingly inexpensive. For less than \$425, you get two 160-Ws Excaliburs, reflectors, two umbrellas, carrying case, sync cord, and two air cushioned lightstands. Neither the flashtubes nor the 60-watt modeling lights are blazingly bright, but for many applications, especially for digital portraiture, they're more than adequate.

Dyna-Lite UNIJR-PS1 Kit

\$1,000 street
www.dynalite.com
800-722-6638

You usually get more power and more accessories for your money with a kit than purchasing items individually. For the most shooting flexibility, check out systems that are also battery-operated. Dyna-Lite's UNIJR-PS1 kit, for example, provides a 400-watt-second, 3.5-pound monolight, plus a Jackrabbit battery pack for location shooting, cables, charger, and a reflector. Its Uni400 monolight features a four-stop power range, 1.4-sec recycle times, a built-in optical slave, and user-replaceable flashtubes. The Jackrabbit will power 75 full pops before requiring recharging. Best thing? With proper cables, the Jackrabbit will power your hot-shoe flash and digital SLR, too!

Paterson Interfit PRO 1000-watt Two-Head Kit

\$980 street
www.patersonphotographic.com

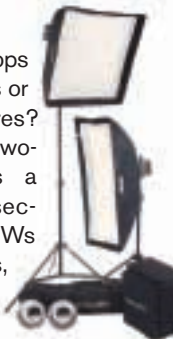
+ *It's no secret that POP PHOTO editors are partial to monolights. Most of the product photos you see here were lit with Elinchrom Style monolights. Recent articles here about home studios have stressed monolights, as well. Unlike studio strobes that require bulky external power packs, monolights have all their electronics, including transformer, in the light's housing. The benefits are fewer cables to snare you, no power packs to trip over, fewer electronics to spook portrait subjects, and generally less expensive and more transportable kits.*



LIGHTING KITS: PRO-LIKE LIGHTS AT AFFORDABLE PRICES

770-947-9796

Do you need power pops to light distant subjects or allow smaller apertures? The Paterson Interfit two-monolight kit offers a bright 2000 watt-seconds (i.e., two 1000-Ws heads), with reflectors, umbrellas, 8-foot lightstands, and a sync cord, all for under \$1,000. With steplessly variable output (from full to 1/32 power), a bright 250-watt quartz-halogen modeling light, and built-in optical and infrared slaves (the infrared requires an optional transmitter), this is an unusually complete and powerful kit.



Adorama Flash-point II 620 Kit

\$240 street
www.adorama.com
800-223-2500

This single-light kit is a very attractive entry-level buy for newbies wanting to get serious about portraiture. The 620 is a solidly built, fan-cooled 300-Ws monolight with a built-in carrying handle, proportional halogen modeling light, stepless output from full to 1/8 power, and a user-replaceable flashtube. While the kit has no case, its 10-foot air-cushioned lightstand and 45-inch white umbrella (with removable black cover) are both better quality than you'd expect for the price.



OK, SO DON'T GET A KIT: SUNPAK PLATINUM LINE



Do you already own lightstands and umbrellas? Fuhgetabout kits.

Some of the best monolight-only buys we've seen belong to Sunpak's Platinum line, ranging in power from 150 to 1000 watt-seconds. The amply powered, 300-Ws unit, for example, sells for about \$180. With rugged construction, 3.5-sec recycle

times, variable output from full to 1/8 power, user-replaceable flashtubes, and a built-in optical slave, Sunpak's Platinum line of monolights may attract professional as well as amateur buyers.



Nikon SB-800 Speedlight

\$334 street
www.nikonusa.com
 800-645-6687

With Nikon's D2H SLR, the SB-800 communicates the exact color temperature of its output (which changes with flash duration) to ensure accurate auto white balancing; the SB-800's high-speed FP mode allows sync speeds of up to 1/8000 sec; a modeling flash feature helps confirm lighting; FV-Lock (Flash Value Lock) lets you preset a flash exposure, recompose, and maintain proper exposure of your subject.

Canon Speedlite 580EX

\$480 street
www.canoneos.com
 800-652-2666



Canon's recently introduced flagship flash, the Speedlite 580EX, has more features and additional power, but is both smaller and lighter than its predecessor, the 550EX. New capabilities include wider coverage (to 14mm), full 180-degree swivel in either direction, seven new custom functions, 25 percent faster recycling times, more even center-to-edge coverage, and a broader AF-assist beam that covers all the AF sensors of every EOS SLR.

Konica Minolta 5600 HS

\$299 street
www.konicaminolta.us
 866-515-0330



Fully compatible with Konica Minolta's Maxxum film and hot-shoed DiMAGE digital cameras, the line-topping 5600 HS offers pros and serious amateurs unusually weather-resistant construction that protects against moisture and dust; high-speed syncing at all possible shutter speeds; a control lock to prevent inadvertent missettings; a stroboscopic modeling light that lets you preview strobe effects—and Konica Minolta includes a stand to help you take advantage of the 5600 HS's TTL-control, wireless off-camera capabilities.



✦ What "extras" do pros get for the \$300, \$350, or \$400 they drop on a high-end hot-shoe flash? More power, for starters. Nikon's line-topping SB-800 Speedlight provides a Guide Number (GN) of 125 (at 35mm and ISO 100), while its nearest neighbor in the Nikon catalog, the SB-600, tops out at GN 98. In practical terms, you get more throw, and/or the ability to shoot at smaller apertures. The SB-800 also supports full i-TTL wireless control of up to three groups of remote SB-800s (plus the Master Unit attached to the camera); each group can contain an unlimited number of flash units. How's that for getting your money's worth?

PRO-LEVEL FLASH UNITS: PUT MORE POWER IN YOUR POPS

Pentax AF-500 FTX

\$299 street
www.pentaximaging.com
 800-877-0155



Pentax's top-of-the-line unit works in either film or digital arenas, and offers something absent from most pro-grade flashes: a built-in optical

slave. Put the AF-500 on-camera as your main light, or take it off-camera, using its optical slave for more advanced lighting setups. (Your SLR's built-in flash would be the main light—all Pentax AF SLRs have one.) Other features to like: a stroboscopic modeling light and 2-fps motor-drive mode (to 20 consecutive pops).

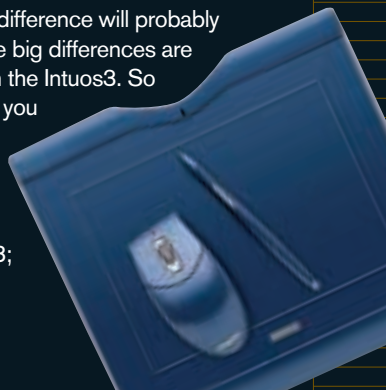
WELCOME THE WACOM



No matter how much mousing we do, palming a flat lump to move a pointer will never be as natural as using a pen. That's why a tablet can make such a difference during retouching. Just like in real life, the harder you press, the larger and darker your mark, and, unlike the mouse's relative relationship to the screen, each point on the tablet corresponds precisely to a point on the monitor.

Wacom is the ruler of the tablet world. They are the technology's innovators, with competing tablets few and far between. Two of their lines are relevant to photographers: the Graphire3 for enthusiasts, and the Intuos3 for the serious retoucher. The tablets connect to your computer via USB, and provide a surface like a super smooth mouse pad upon which the included wireless mouse and pen tools require no batteries. The pressure sensitivity of the Intuos is twice that of the Graphire (1,024 levels vs. 512), but this difference will probably be imperceptible to the average user. The big differences are the new ExpressKeys and Touch Strip on the Intuos3. So conveniently located and programmable, you might find yourself eliminating the keyboard altogether and doing all your work from the tablet itself.

● **GRAPHIRE3:** \$100–\$200;
INTUOS3: \$200–\$750; 800-922-9348;
www.wacom.com



Pro-Level Flash Units