# FLAAR Reports

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# 35mm SLR Digital Cameras

## Shown at PhotoPlus Trade Show, October 2005

Canon, Fuji, Leica, Minolta (KonicaMinolta), Nikon, Olympus, and Pentax exhibited 35mm digital SLR cameras at PhotoPlus 2005 trade show.

Sigma was conspicuous by its absence. So the Sigma SD10 with its Foveon sensor was not present. Sigma tends to exhibit at PMA trade show, and Photokina, so this gives two opportunities to see if anything is new this coming year. However I can't imagine that their sales are going well. There has not been a really new Sigma product for several years. The SD10 was not much more than a firmware update and tweaking of the SD9 (which I tested extensively). It was an interesting technological experiment; I got many gorgeous photos, but the sensor and its software had too many quirks to enthrall me.

Today, with so many better cameras available, it would be tough to have the Sigma even on my short list.

Sony does not exhibit at PhotoPlus; Sony exhibits only at PMA and Photokina. But Sony makes only point-and-shoot cameras, so they would not be in this present list anyway.

Kodak had a booth, but so shrunk in size from previous years as hardly to be recognizable. Three years ago Kodak would have had a giant booth, among the biggest in the show. This time their booth was the smallest of any other than Agfa. The Agfa booth was so small it was sad to see. Few people were looking at anything since probably most people could not figure out what Agfa still had to offer in the digital world. Noritsu, Fuji, and other companies have seemingly taken most of the camera store developing business away from what is left of Agfa.

Kodak pulled out of the 35mm digital camera market earlier this year. Their model 14N was such a poor product (unfinished and inadequate) that it sullied the reputation of Kodak amongst professionals. The quick replacements, the SLR/n and then the SLR/c were much better, but had just enough glitches and quirks that most pros would not want to put up with them. Camera stores are still selling the Kodak SLR/n and SLR/c (and I still have mine). I have taken some award-winning and awesome photos, but the LCD monitor is the worst of any 35mm digital camera out there. I am not familiar with any other $4,000 camera with so many excellent features and outstanding results, yet has enough things that don't work at all, or fail occasionally.

But the Kodak cost half the price of the Canon EOS1 Ds Mark II, so many people were willing to put up with its quirks. Now Canon has its new EOS 5D. If this has none of the quirks of the Kodak, and is the same or lower price, that hastens the withdrawal of Kodak from the world of 35mm SLR cameras. The Canon 5D offers about 12 megapixels; the Kodak offers about 13 megapixels. The difference is insignificant if the Canon has a better LCD viewer, less over-saturation in general, and hardware and software that work without irritating quirks.

## Canon

Canon still offers their EOS 20D, 8 megapixels (same as the Olympus). But the Canon lens reduction factor of 1.6 puts it at a disadvantage (so not as good as Minolta, Nikon, or Pentax at their 1.5x). The Canon sensor is CMOS; the Minolta, Nikon, and Pentax use CCD sensors for their 6-megapixel cameras. I prefer a CCD (less digital noise).

The EOS-1Ds Mark II has been around for a year, is written up everywhere, and does not need much more introduction. At $7,999, without lens, you have to pause before thinking about ordering one. I am still pausing.

The EOS-1D Mark II N is for sports and action photography, with a corresponding price tag.

The EOS 5D is new: 12.8 megapixels but full-frame sensor. So the lens reduction factor is zero, same as the 1Ds Mark II, Kodak SLR/n and Kodak SLR/c. But the latter two cameras cost a tad more, and have been discontinued by Kodak due to glitches and quirks.

The EOS 20Da is a special version for astronomers who need to photograph through telescopes.

The EOS Digital Rebel XT is their low-price entry level camera. But the photos in its catalog are not impressive. I am not yet convinced the low price is worth the downsides, though I am aware that thousands of people are probably fully content. These same people would be even more content if they had a better camera.

Canon has by far the most impressive catalogs but if you look at the photos closely most of them are poor.

**Fuji**

Fuji continues its misleading advertising claims of 12-megapixels for a sensor that most photographers accept only as a 6-megapixel chip. Fuji simply divides each photo site (each pixel well) into two parts, and thereby claims it has 12-million sensors. But I have not yet found any outside independent review that proved that a Fuji camera could beat any Nikon, Minolta or other camera either. In other words, the sensors used by Fuji are not yet either recognized or accepted by outside photographers as being significantly better or even much different than normal 6-megapixel sensors.

All Fuji 35mm cameras use a Nikon body, which naturally use Nikon lenses. So you pay more if you buy all this Nikon hardware from Fuji. You can get a more economical 6 megapixel camera in the Nikon D70s, or you can get true 12-megapixels with a Nikon 2Dx.

So I am not yet convinced by any Fuji claims.

I would also be skeptical of the color saturation of Fuji cameras, because Fujichrome film was always fake color. It looked absolutely beautiful, but the grass was excessively green; the sky was phony blue. But because this high saturation won acclaim, people opted for Fujichrome over Ektachrome because Fujichrome looked prettier.

But I need my images to be true to the original color; not simply pretty.

Otherwise Fuji makes good equipment: Fuji scanners are excellent. The S3 Pro is a good camera too; just not 12-megapixels. The Fuji S3 Pro is a 6-megapixel camera, just like the Minolta, the Pentax, and most Nikon cameras (D50, D70s, D100).

The Fuji cameras are not bad; just their advertising is smoke and mirrors. The camera is more expensive as a result.

Many people are probably happy with their Fuji cameras, and perhaps I would change my mind if I had first-hand experience. But too many digital cameras have problems with over-saturation, and Fuji has decades of dedication to over-saturating their film. So I would be leery from the beginning.

## Leica

The Leica booth was confusing. I did not see any significant mention of the digital Leica camera. I asked about it, and was told "it has been shipping for several months." But when I asked when I could borrow one for testing, I was told politely, "put your name on the waiting list, and you will be called when it is your turn."


I did not see any catalog of the Leica digital camera either. It is as though the Leica digital camera did not really exist except for a few test cameras.

The exhibit display was filled with Leicas from yesteryear: the Leica World News was from January 2005; another was from February 2005, as though nothing had happened since then. One 3-page article covered the Leica Digital Module; that was all, other than mentioning the price, $9,350 for the 10 megapixel camera. Of course if you buy a Leica the price is usually no object. The rest of the Leica publicity handouts talked about the heritage and nostalgia of the Leica M-series (a camera dating back to the 1960's). In another few years the nostalgia crowd won't be around to buy any more nostalgic cameras of any brand. I am amazed that people will pay $5,000+ for a 35mm film camera still today, hoping that someone will be impressed that they carry a Leica. I guess it is like wearing a Rolex watch. But since the last watch I had was a Timex, I am the wrong person to judge the fading allure of having a Leica camera.

In the 1950's through 1970's, thousands of professional photographers favored a Leica camera. I had three Leica cameras by then; still have them all, collecting dust somewhere in storage. By the 1970's Nikon had caught up and by 1980 Nikon took over and Canon came on strong for 35mm cameras (the era of Kodachrome and Fujichrome). By then the typical buyer of a Leica camera was simply a wealthy pro-sumer. By the 1980's, most actual photographers used a Nikon or a Canon; many hard-working pros who were frugal used Pentax, Minolta, and Olympus successfully.

Leica survived during the 1980's and 1990's because people liked the Leitz lenses: sharp as tacks. But today a digital sensor provides mushy focus. This is not the fault of Imacon or Leica: this is the laws of physics and digital sensors. The sensor requires a thick filter in front; this filter is one of the things that makes the digital image soft. Thus I am not convinced that Leica glass makes as much difference today. The sharpness will be reduced the minute it reaches the mushy sensor.

So I doubt if many pro photographers would today even think of buying a Leica R8 or R9 and the digital module. I can see a wealthy Leica owner, who already has an R8 or R9, wanting to buy the digital module. But I am a typical professional photographer. I have several old Leica lenses, but am I willing to spend $9,350 to buy a 10 megapixel body to handle those lenses? They are manual focus. Not that many purists are around whose eyes are sharp enough to put up with manual focus any more. Aging eyes tend to prefer automatic focus, and Leica lenses don't offer much of this. For $7,999 I can buy a Canon EOS1 Ds Mark II; for almost half that I can get a Nikon 2Dx. The Leica R9 by itself lists at $2,850; the Leica Digital-Modul-R is $6,500 This is the sensor pod that fits into the R9 to switch it from using Fujichrome or Ektachrome to using digital.

A positive feature is that this is the only 35mm camera in the world to allow you to use both digital and traditional film in the same body. Of course you can switch back and forth with any medium format or large format camera: all those take film magazines or digital backs interchangeably. The slight difference between using Fujichrome and using the digital module is the 1.37 lens reduction factor when using the CCD sensor.

Ten years ago I needed a 15mm lens to do architectural interiors (of Mayan temple and palace rooms). A Leitz lens would have cost perhaps $3500 or $4500 (can't remember). But I do remember that the cost of a Nikon

F3 body together with a Nikon 15mm ultra wide angle (non-distorting; non-fisheye) lens was together more economical than the Leitz lens by its own. So I jumped to Nikon and never bought another Leica body or lens again.

The fact that the Leica module has been delayed now over a year raises immediate questions. The fact that the Leica module was not showcased at PhotoPlus trade show raises even more questions. Contax disappeared as a brand this year, as did Bronica (medium format). We hope Leica survives, but by the time their 35mm digital cameras are really available, most of the world will already be digitalized by Canon, Nikon, Minolta, Olympus and Pentax, and there simply won't be much demand left for an expensive Leica nameplate.

## Minolta (KonicaMinolta)


Minolta offers anti-shake stabilization in the camera, so you don't need anti-shake built into each individual lens. This means that a tripod is not as essential. However for all digital photography, we still recommend a tripod no matter what. And a cable release.

Minolta was the last major manufacturer to produce a 35mm SLR. Even Pentax and Olympus got their 35mm digital SLRs out first. Contax tried, but their Digital N had software and hardware glitches. As a result Contax disappeared (did not go bankrupt; the company simply stopped existing when Kyocera ditched them, other than as a ghost being sold off by Tocad, a distributor in the US).

Minolta has been more adventurous with digital cameras than Pentax. So if asked to chose between the two, I would opt for Minolta.

The Minolta Maxxum 5D and its lens catalog are subdued, and do not fall into misleading claims. But they do call their sensor "large" as if trying to distinguish it. Their sensor is neither large nor small; it is the same size as that of Nikon or Pentax. Only the sensors of Olympus and Sigma could be called small. And in sheer physical size, any sensor with a lens factor of 1.3 would be large (or at least larger than the 1.5 of Nikon). Of course with a lens reduction factor of zero, the sensor of the Canon full-frame cameras is the largest of all (other than the sensors for medium format cameras, which are much larger). You can now order a 31 megapixel or a 39 megapixel medium format camera (if money is no object).

## Nikon


Nikon tries to compete for the pro, pro-sumer, and entry-level digital photographer. Thus Nikon offers the

- D2x for the pro and wealthy pro-sumer.
- D70s for the frugal pro and pro-sumer
- D50 for the entry level into 35mm SLR digital cameras.
- D2HS for sports and action photography

The D100, the camera I have had for three years, is no longer in the Nikon catalogs. This was replaced by the D70s.

The Nikon D50 is their answer to the popular Canon Digital Rebel XT. The Canon XT is probably one of the best selling digital 35mm SLR cameras ever made. That does not make it a better camera, or even a good camera. It only means that Nikon was slow to produce a digital camera for that price point, so Canon took the lead.

The D2HS is in many ways replaced by the sports-mode on the D2x. So if I needed a camera for action, I would opt for the Nikon D2x. The 1.5 lens magnification factor is a benefit; you don't need a full-frame sensor for sports or action photography unless you are photographing in a small enclosed room.

Considering this is Nikon's first CMOS sensor camera they have done well with such a first-generation technology.

Most photographers don't understand why Nikon keeps trying to make their own RAW software (Nikon calls theirs NEF). Most photographers prefer to work in Adobe RAW format (Adobe DNG).

I tend to prefer Nikon lenses over Canon lenses. The reports on the internet are not very flattering for Canon zoom lenses.

The 1.5x lens magnification factor is still a detriment to being able to handle interior architectural photography. If you earn your livelihood doing shots of rooms, then you have to have a full-frame sensor. Even doing exterior architecture, a 1.5x lens factor is not good. 1.3 would be a tad better. But at least 1.5x is not as bad as the Olympus or Sigma lens reduction factors.

**Olympus**

Every camera manufacturer tries to offer something interesting and unique… to distract you from the weak points; to distract you from the stronger features that the competing cameras have. Olympus is stuck with their four-thirds sensor size. Best way to describe it is "too small, and much smaller than all other digital camera sensors; the only sensor smaller is on the Sigma."

Olympus tries to make you forget how small their sensor is by having a 2.5 inch LCD, and vibrating the sensor to try to shake off dust. In other words, smoke and mirrors.

At least they offer 8 megapixels, but if you need to do architectural photography, the camera is not a serious option unless you are already loaded with Olympus lenses and need a digital Olympus body to use all your old Olympus lenses. Just remember, the lens reduction factor is a whopping 2x.

I did not notice any brochure other than two 1-page items. They said there was a CD, but I don't have time or inclination to fumble through a CD for every product I have to review. I need to see things neatly in a hard copy brochure. Canon knows how to wow people with a brochure.

The 1-page brochure on the Evolt E-500 featured its Supersonic Wave Filter that (supposedly) eliminates dust, and only second listed its sensor as 8 megapixels. On the entire sheet there was no one single solitary mention of the physical dimensions of the sensor. Nary a reminder that the lens reduction factor was a substantial 2x.

But at least the price of this model is under $1000, with lens. Still, 8 megapixels with a large lens reduction factor is not as useful as 6 megapixels (Minolta, Nikon, Pentax) with a 1.5x lens reduction factor, which is bearable.

### Pentax

Pentax was the second-to-the-last Japanese camera company to offer a digital 35mm SLR (Olympus and Minolta were also slow; Minolta was the last to come out with a 35mm digital camera with interchangeable lenses). I would rate their second-generation Pentax digital camera as approximately on par with the Minolta cameras: in other words. If you have lots of Pentax lenses already, the Pentax digital camera is a logical choice. The fact that these are now second-generation digital cameras is an asset. All camera manufacturers learn from the weaknesses of their first-generation camera and add all the improvements to their newer models. The two current Pentax models are the *istDS2 and the *istDL. Lens reduction factor is 1.5x on both. Pentax is an honest company and clearly lists the lens reduction factor, as compared with Olympus which blissfully omits admitting its lens reduction factor in some of its brochures.

But I would not myself buy a Pentax, Minolta, Sigma, and definitely not an Olympus just to get a digital system. I would stick with Nikon or Canon. Canon is not best; it's just that it muscled its way into the scene with more pizzazz than did Nikon.

## Conclusions

If you already have Minolta or Pentax lenses, buy their digital body so you can use your lenses. Their digital cameras are perfectly okay.

If you already have Olympus lenses, I would still not really be enticed to choose an Olympus body; their sensors are just too small in physical size. It has no use whether the sensor is 6 megapixels or 8 megapixels; what counts is the lens reduction factor. 2x is too much (Olympus). Minolta, Pentax, and Nikon are all around 1.5.

If you already have a Leica R8 or Leica R9 body, then consider the Leica add-on digital module.

### What would I buy myself?

I am curious if the Canon EOS 5D is better than the nice, but a tad imperfect Kodak SLR/n. If the Canon 5D has no serious glitches, no weak points, then this may be a tough competition for the Nikon 2Dx.

### What do we recommend?

We can't think for you, but the Nikon D70s is a good entry-level digital 35mm SLR camera. It is probably as good if not better than my D100 (for which I paid $1999 with no lens three years ago). I would be afraid that the Nikon D50 might have too few features (since Nikon has to make it lesser than the D70s or no one would want to pay more for the D70s). In other words, I would rather pay a bit extra and get the Nikon D70s, than go cheap for the D50. And I would prefer either over the Canon Digital Rebel XT, in part because I prefer CCD sensors over CMOS sensors.

With the Nikon 2Dx you can't avoid a CMOS sensor; you can't get a CCD that large and still function or be within the price range.

If no Canon 5D existed, my choice would be the Nikon 2Dx (if the price did not hamper such a decision). If price were no object I would opt for the Canon EOS 1Ds Mark II. If I won the lottery I would try the Leica, but mainly out of curiosity. Leica is not a large enough company to have enough R&D capital to fine tune their software or offer constant updates in their firmware. Imacon (now Hasselblad) is the company that is building the Leica sensor, and we would assume much of the software.

So: tough choice between the Canon 5D and Nikon 2Dx, if the $7,999 price of the Canon EOS 1Ds Mark II would be a cause of divorce in your family.

At pro-sumer entry level, try the Nikon 70s.

At the high end there is only one option: the Canon EOS 1Ds Mark II. Not because it is the best, but because nothing else has the allure or the pixel count. On the subject of pixel count: it will be interesting to see if the Canon 5D, with fewer pixels, can produce a better image than the larger pixel count (but smaller pixel size) 1Ds Mark II.

But if you really want a high end digital camera, then you need to consider medium format digital backs for a Contax, Hasselblad or Rollei. Leaf, Jenoptik, MegaVision, PhaseOne, and Sinar make outstanding camera backs that blow away even the best that Canon tries to offer. But medium format quality at 22-megapixel size costs between $25,000 and $30,000. This makes the $7,999 Canon look almost affordable.