

[16:59:02] **<Leica Moderator 5>** We are pleased to welcome you to the Leica internet chat. When we introduced this product we announced that a serial production was planned for December 2004. We regretfully must inform you that we will not be able to adhere to this plan. We now plan the first deliveries in April 2005. The reason for this delay is that some software components necessary for the universal insertion of the digital solution could not be realized according to our standards until now. A need for additional programming has arisen. We want to be absolutely sure that the LEICA DIGITAL-MODUL-R is fully functional before delivery starts. Based on the fact that it is rightly expected of us to fulfill the expectations and to produce a near perfect product, this can then be seen as the only right decision.

[16:59:03] **Leica Moderator 1>** pm: Do you plan to release wide-angle for the DMR or do we have to use the 19mm to get a 28mm, a 15 to get a 21mm and so on? And lose the convenience of the 21-35 range? **L3:** In the recent past, several interesting lenses have been added to the Leica R system (15mm, 21-35mm, 28-90mm). Further Innovations will follow, but it is to early at this stage to make any specific announcements.

[16:59:07] **Leica Moderator 4>** pm: How do you expect to handle noise at high iso settings, especially when compared to competitors such as Canon? L8: We will decrese noise to a level that image quality is at a well balanced level. The noise of the DMR is a competetive to the other high end DSLRs.

[17:00:55] **Leica Moderator 1>** grumpitoad: Hello - I'd like to congratulate Leica on the decision to 'hold back' the release of the Digital Modul R until fully satisfied it met Leica Requirements. It's a good thing that the product is tuned and right before release. It happens too often at the moment that products are released that don not match expectations or do not do 'what it says on the tin' - in those situations the customer becomes a quality controller / testbed, instead of a satisfied end user. The approach adopted by Leica gives me every confidence that the final product will meet expectations.

**L3:** Thank you for your very positive comment. We try our very best to introduce a perfect or nearly perfect product right from the beginning.

[17:01:20] **<Leica Moderator 3>** gakhular: Hello

L1: Hello from Solms!

[17:02:04] **Leica Moderator 1>** pm: When can we expect more sample pictures? The two on your site are interesting but lack technical informations.

L3: From this morning on, we have three new performance proofs in full resolution available on the site of the DMR. Further details explaining the pictures will follow.

[17:03:12] **Leica Moderator 1>** grumpitoad: Do you expect that a range of digital friendly lenses will be introduced?

L3: We do not see a necessity for introducing "digital friendly lenses". All current Leica lenses will perform in a very good way on the Digital Modul R.

[17:03:36] **Leica Moderator 4>** pm: Can we expect a good quality with all lenses? For instance, can we expect to keep the 21-35 or buy a 2nd hand 15mm/3.5 or will we be forced to use only "perfect" lenses like the Eos1Ds? **L4:** Our first experiences show that the differncies between the lenses are the same as you know from analog if you compare the same printout size.

[17:03:42] **<Leica Moderator 2>** hiro sasaki: Hi from Japan, I read your shipment delay to next April. How does it affect on international delivery? **L2:** We will deliver according to when we received the orders, beginning in April 2005. Even after deliveries have started, i.e. the initial orders have been met, back-orders may continue to result for some months, but we will try hard to keep them as low as possible by adjusting production. As of today, we expect to be able to satisfy all existing orders by late summer 2005

[17:04:00] **Leica Moderator 1>** CD: Hello here from Canada! What improvements need to be carried out in order for the DMR to be available to end users?

L3: Basically, the development includes many new areas for both partners, especially in the light of the ambitious goals and the tight time schedule. Considering that we started from scratch only last summer, we are very satisfied with our partner Imacon?s progress.

[17:05:20] **<Leica Moderator 4>** Matthew: When can we hope to see a full-frame-digital R camera (R10?) with 17-20 megapixels of res.? **L4:** The ten mp images are fully satisfying regarding image quality, so we don't plan this. Fullframe is not possible because of technical issues.

## [17:05:38] **<Leica Moderator 2>**

**L2:**When we announced the DMR in June 2003 we did so to provide our customers a perspective for digital applications with their Leica R cameras and lenses. At that point, the concept had been finalized and the feasibility study had proven successful, but the actual development had not been started. During this process, it turned out that certain parts of the development are much more sophisticated and time-consuming than expectedJohn F: Why did Leica decide to pospone the release of the DMR until April 2005. The text in the e-mail is not clear. Thank you!

[17:06:00] **Leica Moderator 3>** CD: Will the sensor configuration remain as originally specified?

**L1:** There are no changes to the hardware configuration.

[17:06:08] **Leica Moderator 1>** CD: Hello here from Canada! What improvements need to be carried out in order for the DMR to be available to end users?

**L3**: Automatic White Balance: Is still being optimized and is undergoing severe testing.

## [17:06:10] **<Leica Moderator 2>**

**L2**: We will start shipments globally from April on. hiro sasaki: Can we Japanese expect delivery in same April to Germany? or some delay from initial delivery due to localize or something?

[17:06:59] **Leica Moderator 4>** gakhular: I'm curious about the software that still needs to be perfected. Is that actually firmaware in the module? I expect one of your challenges is to get the maximum in resolution without fine luma details turning into chroma anomalies.

L4: Yes, it is only firmware that we are working on and one of the main issues

## [17:07:35] **<Leica Moderator 2>**

**L2:** In two hours from now.hiro sasaki: How long will you go on this chat? What time is closure of this chat?

[17:07:58] **Leica Moderator 1>** Doc A: Good morning--- The DMR that I took pictures with would not set the "B" exposure time for longer than 16 seconds, Will this be fixed in the production model?

**L3:** 16 seconds will be the longest exposure time available with the DMR. B exposures will not be possible.

[17:08:00] **Leica Moderator 4>** CD: Does the DMR support native 16 bit capture as opposed to interpolation?

L4: it is possible to get 16bit files using RAW and flexcolor.

[17:08:41] **<Leica Moderator 2>** hiro sasaki: Could you explain more about moir?-filter? How does it work?

**L2**: The reduction of the moir? effect is realized through software. In the process, specially developed algorithms search the image for the typical patterns and then modify the data so that the effect is reduced

[17:08:53] **Leica Moderator 1>** hiro sasaki: Could you explain more about moir?-filter? How does it work?

L3: The reduction of the moir? effect is realized through software. In the process, specially developed algorithms search the image for the typical patterns and then modify the data so that the effect is reduced.

[17:09:22] **Leica Moderator 4>** pm: You say that full frame is not possible because of technical issues. But Leica R lenses on the Eos1Ds give excellent images, far better than Canon Lenses, as expected :-) Even wide-angle are very good. So is it really impossible?

**L4:** a fullframe sensor unfortunately does not fit into the imageframe of the R9 ;-(

[17:10:42] **Leica Moderator 4>** Doc A: What is the QE factor for this chip. How much noise and at what temperature?

L4: You get a SNR of nearly 70 using ISO 100 and room temparature.

[17:11:29] **<Leica Moderator 3>** grumpitoad: Is work being done on the development of other digital camera prototypes, such as a digital M mount camera, a dedicated digital SLR, or a replacement for the Digilux 2? **L1:** We have one basic guideline for our communication on new products: We only want to speak about products that are ready to be sold. The Digital-Module-R was a special case as we wanted to give our customers an orientation for their investment ino the R system. We are currently working on other digital projects but do not intend to release further information at this point.

[17:12:16] **Leica Moderator 2>** hiro sasaki: R8 may have some electric variations. is the DMR able to install all type of R8 in the market? **L2**: R9:

[17:12:24] **Leica Moderator 1>** John F: The text in he DMR newsletter e-mail mentions "The reason for this delay is that some software components that are needed for the universal insertion of the digital solution could not be realized up to our standards until now. " - what does did mean? Is there a

driver that still needs to be developed?

L3: Several software components such as Auto White Balance and Moire filter and speed enhancement have to be improved. The basic functions work very good and hardware development is accomplished.

[17:12:54] **<Leica Moderator 4>** CD: To be clear the 16 bit possible from RAW and flexcolor is native and not interpolated? Is this right? **L4:** Yes.

[17:13:33] **Leica Moderator 4>** gakhular: Is the main effect of using higher effective sensor speed (e.g. ISO 800) reduced signal to noise? **L4:** Yes, naturally.

[17:13:42] **<Leica Moderator 3>** Matthew: Can you provide a brief M digital update: Will the sensor be full-frame? How many megapixels?

L1: We see this chat as a place to discuss all questions on the Digital Module R. Unfortunately there are no news concerning other innovations at this point here. We only released at an earlier stage that the digital solution in the M segment will be 10 Megapixel minimum.

[17:13:54] **Leica Moderator 1>** Doc A: If B exposures are not posible this will limit the cameras use to point and shoot. THIS NEEDS TO BE IMPLIMENTED! Your compeditors allow long exposures for a top of the line camera this is unexceptable!

L3: We will check the noise level with very long exposure times (longer than 16 seconds) if this is leading to a good result, a further update is not excluded.

[17:14:17] **Leica Moderator 1>** John F: Will the price of the DMR be higher when it is finally released in April 2005?

L3: The price will exactly remain at the announced price.

[17:14:28] **<Leica Moderator 2>** hiro sasaki: R8 may have some electric variations. is the DMR able to install all type of R8 in the market? **L2:** Yes, there are just some minor restrictions in the features, compared to R9.

[17:14:30] **Leica Moderator 3>** hiro sasaki: The leica newsletter told us postpone of DMR. The specs are also subject to change? **L1:** Postponing the market introduction has no influence on the technical

released so far.

[17:14:54] **<Leica Moderator 2>** hiro sasaki: The leica newsletter told us postpone of DMR. The specs are also subject to change? **L2:** No.

[17:14:55] **<Leica Moderator 1>** e: how does one use the R lense on the Canon Eos1D??

**L3:** There are adapters from Leica R mount to Canon EOS mount available from Novoflex.

[17:15:10] **Leica Moderator 4>** maxos: is there a 16 bit A/D on the DMR? **L4:** We have to check for details specs regarding the hardware parts. I am sorry.

[17:15:54] **Leica Moderator 2>** hiro sasaki: Sorry, could you answer again? R8s may have some electric variations. is the DMR really able to install all of

L2: Yes, the DMR works perfectly fine with the R8 and the R9.

[17:16:17] **<Leica Moderator 1>** seamus: Please explain how to work temporary with an EOS (canon) body ?

L3: As we only represent Leica Camera, we are not able to tell you how to operate a Canon camera ;-))

[17:17:34] **Leica Moderator 1>** Doc A: For long exposures WE can do the dark subtraction and reduce any noise in PhotoShop. 16 sec is a must have! Can this becorrected in sogtware?

**L3:** As explained before, we wil check noise level and will introduce this feature. We kindly ask for your patience.

[17:19:10] **Leica Moderator 3>** John F: The last Chat on the DMR was in June 2003. Leica had then mentioned that there would be other chats later in that year. Will Leica plan more "Chats" in the future for other Elica products (e.g. the dighital M, digilux, etc...) Thank you

**L1:** This is a good proposal. We will consider additional chats. We did not offer further chats on the Digital Module R in the meantime due to capacity reasons but did keep in touch with potential customers by sending regularly information in our newsletter on the Digital Module R.

[17:19:18] **Leica Moderator 2>** maxos: Will there be a reduced price kit for a model and an R body?

**L2**: Currently we do not have plans for a reduced price for the DMR together with a camera, but we offer attractive entry sets for an R9 together with a lens.

[17:19:28] **<Leica Moderator 1>** seamus: Got my message wrong just wanted to know about the adapter!

**L3:** The adapter has bayonet mounts on both sides. There is no automatic aperture control. You have to stop down manually when using this adapter.

[17:19:38] **Leica Moderator 4>** Doc A: Will there ever be a way of cooling the chip for noise reduction?

**L4**: There are no plans to offer something the system.

[17:20:25] **Leica Moderator 2>** hiro sasaki: Have you actually installed old leica-SLR lenses such as first generation summicron for LEICAFLEX? If so, How about the image quality?

**L2:** There is no restriction in optical quality but of course newer lenses in our program offer latest performance.

[17:20:31] **Leica Moderator 3>** nicolas: Hi from France, wich issue are you managing regarding the Flash photography TTL sychro etc.. L1 Bonjour Nicolas. As a matter of principle, TTL flash control based on a reflective surface in the film plane is not possible with digital SLRs. Due to the sensor surface?s much less diffuse reflectivity as compared to a film?s, metering the flash?s light reflected from the sensor would result in a faulty exposure.

[17:21:12] **Leica Moderator 4>** Doc A: Can firmware be updated over the internet as changes come about?

**L4:** The update file will have to be copied onto an SD card. After inserting this CD card, the DMR automatically recognizes the update, and after confirming the action, automatically performs the update.

[17:21:29] **<Leica Moderator 3>** Matthew: Erwin Puts has not written a Leica R-Lenses Column in months. Will he resume these valuable articles? **L3:** Hello Matthew. We know that many customers really love this column. This is why it will continue in a few weeks. Good news, isn't it?

[17:22:27] **Leica Moderator 2>** John F: Has the merger of Hasselblad and Imacon had an impact on the DMR development project and will Imacon agree to continue working with Leica in the future?

L2:Naturally, changes in a company?s organization always cause a certain degree of interference. Nevertheless, almost the complete Imacon team is continuing their work on the DMR. We are still very satisfied with our cooperation

[17:23:21] **Leica Moderator 1>** SteveT\_NYC: Hello. What, if any, telephoto add-on options are available for the D2?

**L1:** There are no telephoto extenders planned at the time being for this camera.

[17:23:44] **Leica Moderator 4>** CD: You mentioned that you now expect to fulfill all outstanding orders by the end of summer 2005, are there any plans to increase the burst rate of the DMR from its current 2fps? What about a bigger burst depth?

L4: We will give our best.

[17:24:51] **<Leica Moderator 4>** Doc A: Can the DMR be controlled remotely while attached to computer and external power supply?

**L4**: Yes, you can release the shutter using flexcolor.

[17:25:04] **Leica Moderator 1>** richsolomon: Will the ROM contacts on the lens play any role whatesoever in working with the DMR?

L1: Lenses do not need to be equipped with ROM-contacts but ROM contacts transfer certain lens data concerning vignetting, used aperture and type of lens to the Digital Back. So under certain conditions, ROM contacts are beneficial when working digital.

[17:25:36] **<Leica Moderator 2>** hiro sasaki: Does DMR use any ROM-lenses information?

**L2:** Please see answer to question "richsolomon"

[17:26:00] **Leica Moderator 4>** seamus: A lot of photographers (prof) in the Netherlands are selling their Leica camera's they are not waiting, is April 2005 to late?

**L4:** We hope that our customers understand that we want to offer a full quality product and that they have understanding for that.

[17:26:08] **Leica Moderator 1>** grumpitoad: As the sensor is not full frame, the area covered by a wide angled lens will be reduced - are there any plans to introduce a modified wide angle zoom to allow for this?

L1: In the recent past, several interesting lenses have been added to the Leica R system (15mm, 21-35mm, 28-90mm). Further Innovations will follow, but it is to early at this stage to make any specific announcements.

[17:26:46] **Leica Moderator 4>** Matthew: It was disappointing to see the Digilux 2 have a 4:3 sensor aspect ratio. Leica is the originator of the 3:2 ratio, and many of us prefer it over 4:3 or (ugh!) the square. Please include a 3:2 ratio option in all future digital products. It is the Leica heritage! Thanks.

**L4**: The DMR has 2:3, you like that?

[17:27:38] **Leica Moderator 1>** Doug: There have been rumors that frequent changes between film backs and the DMR will cause excesive wear on the DMR. Is this accurate? If so, can you tell us the technical reasons for this wear?

**L1:** There is no excesive wear when changing from analog to digital and vice versa. The solution will withstand professional use for a long time.a

[17:28:37] **Leica Moderator 3>** seamus: A lot of photographers (prof) in the Netherlands are selling their Leica camera's they are not waiting, is April 2005 to late?

L3: Hello to the Netherlands. We do want to have the product available as soon as possible. But we are sure that especially professional users would not accept to have a product which is not working perfectly. This is why we have to wait a bit longer than accepted. Our impression is on the other hand side, that quite a few professional photographers do wait for the DMR as this is a unique solution matching their needs. They might use other products in the meantime (like the Digilux 2!). We hope that the quality proofs we have released will be another convincing argument not to sell the Leica equipment due to the delay.

[17:29:07] **<Leica Moderator 2>** e: What is the status between Leica and Panasonic... how are these cameras selling?

**L2:** We are Leica and therefore we do not know how Panasonic as a company is selling. We assume they are doing good with Leica lenses.

[17:29:37] **Leica Moderator 1>** Shauney sheep: Hello. You say the delay is due to software, will this halt the making of the module or will you carry on, adding the software later when ready.

L1: As certain software components are not completed to 100 % the current backs will not give satisfaction under every circumstances. Therefore, we decided to postpone the shipments otherwise we would expect complaints.

[17:29:39] **<Leica Moderator 4>** richsolomon: will the R9 have any advantages over the R8 when using the DMR

**L4:** R9:- Long time exposures utilizing the camera?s B setting are not available. -Turning the camera off automatically also turns the DMR off. -The camera?s shutter cannot be released with a flash unit attached that is set to TTL. R8: -Long time exposures up to 16s utilizing the camera?s B setting are available -The DMR has to be turned off separately with its OK/OFF button. - The camera?s shutter can be released even with a flash unit attached that is set to TTL.

[17:29:52] **<Leica Moderator 3>** John F: Could you please tell us why Leica decided on a 69mm filter size for the Digilux 2? This decision (either done by Leica or Panasonic) has caused a LOT of problems for many D2 users. Thank you

**L2:** Hello! We are all focussed on giving the right answers concerning the Leica Digital Module-R. Please use the other existing communication tools to discuss questions which do not have a relation to the DMR.

[17:30:00] **Leica Moderator 4>** maxos: Are the micro lenses on the DMR chip specially deigned for leica lenses? **L4**: Yes, they are.

[17:30:41] **Leica Moderator 2>** e: Assuming you are selling a lot of Leica lenses to Panasonic, can we expect more Pana+Leica products in the future? ??

**L2**: During this chat we would like to focus on the DMR.

[17:30:59] **Leica Moderator 4>** Doc A: Is the fix to allow longer than 16sec exposures a software problem that can be incorporated in the 4 month delivery delay time?

L4: I guess not.

[17:31:54] **<Leica Moderator 1>** seamus: The photographers are understanding and they want to have an full quality product, but most dutch photoagencies only accept digital photography. So most photographers have to choose at this moment to stay in the market themselves!

L1: We think most of the professional photographers are already equipped with some intermediate solutions, like a digital prosumer camera (DIGILUX 2) or a low-end DSLR. It does not make any sense to introduce a product which does not fulfill professional expectations now.

[17:32:30] **Leica Moderator 4>** hiro sasaki: How fast does the module write into the SD card? If you already have a data let us know please.

L4: It writes with the speed that is limited by every card on the market.

[17:32:40] **<Leica Moderator 3>** FPS: What are the specialities of Leica Camera?

**L3**: Quality, precision and solidity. Both in analog and digital products. We offer the best optics and cameras which are inspiring the photographer to be creative. And optics and the creative talent of the photographer are the elements that really have an importance to the photographic result, not the digital or analog capturing of the photo.

[17:34:44] **Leica Moderator 3>** matthew: My connection was lost, and I had to re-log on. Is there a way to scroll back to the earlier parts of the chat? **L3:** We will publish a protocol of the chat very soon so that you may read all earlier replies later on.

[17:34:55] **Leica Moderator 4>** grumpitoad: Could I check an answer given to Richsolomon earlier - is it right to say the R8 will allow exposures up to 16s on 'B' setting, when the R9 won't?

L4: It's seems to be like that but we are still looking on this issue.

[17:35:11] **Leica Moderator 2>** John F: Will the DMR support SD cards with capacity higher than 2 Gigabytes?

**L2:** The DMR works with SD cards up to 2 GB, if bigger cards are available a software update for the DMR is needed.

[17:35:57] **Leica Moderator 1>** Doc A: The DIGILUX 2 does not provide a profesional solution when it comes to long 800mm lens. We need a interchangable lens system.

**L1:** The DIGILUX 2 is a high-end prosumer camera and is naturally limited due to a built-in lens. Further interesting projects are under development.

[17:36:20] **Leica Moderator 4>** richsolomon: on the R8 set to program mode & SF20 flash unit set to TTL, and DMR attached will the camera decide on exposure properly?

L4: It won't expose. You have to use A on the SF 20.

[17:37:08] **Leica Moderator 4>** gakhular: No TTL flash exposure control is a problem. What will be the suggested way to get similar functionality? **L4**: Use A if it has to be fast, use F or HSS if you have to mesure TTL.

[17:37:28] **Leica Moderator 2>** hiro sasaki: Does the DMR has image magnification ability in playback view? **L2**: Yes.

[17:37:47] **Leica Moderator 1>** CD: As a professionall would rather wait to get the optimal solution in the DMR - I guess I'll have to use a temporary alternative as a low end DSLR in the meantime. My expectations of the DMR are VERY high as I do not wish to have to change digital solutions every two years. Is this the way you envision Leica's DMR strategy?

**L1:** As for every Leica product longevity, ease of use and value retention is essential. We expect a very long lifecycle for the DMR.

[17:38:23] **<Leica Moderator 4>** grumpitoad: How many maximum resolution jpegs might you get on a 1Gb card

**L4:** depending on images you take it might be from 150 to 500.

[17:39:02] **Leica Moderator 4>** jira: Hi, do I understand it right that there will be no TTL flash compatibility when using DMR? Is Leica planning to offer any solution to this?

L4: Please look at a question answerd one minute ago.

[17:39:10] **<Leica Moderator 1>** matthew: Can the SF24D flash replace the SF20 flash in all applications? Your lit. still suggests the SF20 flash for R9, etc., but the SF24D instructions suggests the SF24D is fully compatible with R9.

L1: We have to say that our internet content is not really up-to-date in that matter. The SF24 D has replaced SF 20 and offers all functions of the SF 20 plus a guide number control for LEICA DIGILUX 2 and LEICA CM/CM ZOOM.

[17:39:37] **Leica Moderator 3>** John F: I realise that this is a "DMR Chat", but there are many issues concerning the Digilux 2 that Leica users would like to be addressed - Please plan another Chat for the D2 when you can. Thank you

**L3:** Thanks for your understanding. We will check this. But we may also give you an answer in the meantime if you send an e-mail at any time to our infoservice!

[17:40:27] **Leica Moderator 2>** seamus: I understand the choice from Leica to bring only a perfect working product, but I also see for the Netherlands your market is shringking. I am the only leica photographer at my agency (some 60 photographers) and we are also part from the ANP (the dutch pressagency). I just advice don't delay to much!

**L2**: Yes, we take your point very serious and we are working as fast as possible.

[17:40:39] **Leica Moderator 1>** vasken: Are there plans for digital wide angle lenses with a smaller image circle and if not would Leica perhaps consider offering an adapter between the lens and the camera that reduces the size of the image circle thus producing about twice the brightness?

**L1:** We do not intend to introduce "only digital" lenses. Adapters to reduce image circle and to enhance brightness are optically not possible.

[17:41:20] **Leica Moderator 4>** jira: As a follow up to my question, what about all the SCA adapters to Metz flashes, will they all become obsolete and unusable with TTL?

L4: No, you need it for using the TTL HSS function.

[17:41:48] **<Leica Moderator 2>** hiro sasaki: How does the "user profile" menu work?

**L2:** You can save up to three individual settings of all parameters.

[17:42:01] **<Leica Moderator 3>** FPS: What are the specialities of Leica Camera?

L3: Hello! I have just given an answer to this. You will find it starting with quality, precision and solidity in the protocol!

[17:42:17] **Leica Moderator 1>** richsolomon: are there any "whitepapers/publications" available at this time on usage of DMR, or experiences, with DMR. **L1:** In Leica World news, photokina issue, there was an article from the German photographer Mike Scharfscheer who tested the DMR. So far, there are no further reports from professionals (Leica World news is available as a download from this site).

[17:42:35] **Leica Moderator 2>** Shauney sheep: Is the delay of the DMR a leica design problem or an imacon software problem.

**L2:** When we announced the DMR in June 2003 we did so to provide our customers a perspective for digital applications with their Leica R cameras and lenses. At that point, the concept had been finalized and the feasibility study had proven successful, but the actual development had not been started. During this process, it turned out that certain parts of the development are much more sophisticated and time-consuming than expected

[17:43:18] **<Leica Moderator 1>** Doc A: How can we be kept up to date on the 16sec issue?

L1: We will check this matter. We cannot say anything additional at this time.

[17:43:30] **Leica Moderator 4>** richsolomon: how long, how many exposure do you expect the batteries in the DMR to last, ofcourse understanding it depends on temp

**L4:** I would say that you can work the whole day with one battery and take hundreds of images

[17:43:37] **Leica Moderator 2>** matthew: Has new R lens development stopped, or can we expect to see additional R lenses in near future. There was no R lens announcement at Photokina as in years past. Some lenses (like 24mm, 35mm, etc.) are old designs.

**L2**: In the recent past, several interesting lenses have been added to the Leica R system (15mm, 21-35mm, 28-90mm). Further Innovations will follow, but it is to early at this stage to make any specific announcements

[17:44:27] **Leica Moderator 1>** grumpitoad: Could you remind me if the rear screen on the DMR is 'review only'

**L1:** Yes, as usual on any DSLR the screen can only be used to review pictures. For the optical viewfinder in an SLR camera, the mirror has to be down in order to view the picture. The Kodak sensor used in the DMR does not allow a video preview.

[17:45:20] **<Leica Moderator 4>** CD: Going back to TTL and the DMR - I understand that it's not possible at this time with the current R8/9 configuration. Do you foresee a solution in the future that will allow for TTL flash metering?

**L4:** Yes as mentioned the HSS function. But you have to release a preflash for that. There is no other solution.

[17:45:44] **Leica Moderator 3>** pm: You say you expect a very long life cycle for the DMR. This are good news. However, this is a very fast moving market and in 1 year or so, CCD with higher resolution, less noise, better dynamic will be available. Do you really think you will not have to improve your offer much more often than with film cameras?

L3: We really waited to release the DMR at a point which enables us to present a product with a long life cycle. This really fits to Leica. We are glad that you like this. We will carefully check the market developments and will see whether we have to change anything in the future. But again: The level of quality will meet the highest demands for a long term. And we will not follow the strategy of some competitors to try everything telling you that you need a new product every few months.

[17:46:29] **<Leica Moderator 1>** Doc A: Where can we get spec's on the preformance of the chip?

L1: Further information will follow in the market introduction brochure for the DMR. Please note that sensor specification is only a part of the total performance of the system. Lenses and data processing are at least as important for the overall performance.

[17:48:23] **Leica Moderator 4>** MJS: How does the dynamic range of the DMR CCD compare with E6 processed film?

L4: it is comparative, but the possibilities of manupulating contrast are easier.

[17:48:31] **Leica Moderator 1>** John F: Flash photography with SLR cameras has become very sophisticated today. I think many Leica R users would like to have matrix metering with TTL Flash, and automatic HSS flash, with or without the DMR, in the future. Can you say if this is a priority with Leica at the moment? Thanks.

L1: We are aware of the wish, to have full automatic flash exposure. With the current R8 and R9 models, this is not possible. In further developments, this will certainly be implemented. We are convinced, that the F mode as well as the HSS are a good intermediate solution.

[17:48:55] **<Leica Moderator 3>** e: I don't understand the previous comment that the DMR does not support a "full screen" mode... can you explain? **L3**: Sorry, but now we do not really understand your question. Could ask it again with some more precision, please?

[17:49:27] **<Leica Moderator 4>** hiro sasaki: Is the 1600 ISO option? the higher ISO limit of DMR was ISO 800 as far as I remember.

**L4:** it is possible to use ISO 1600 also.

[17:50:55] **<Leica Moderator 1>** grumpitoad: Does Leica have any long term plans regarding autofocus?

L1: Certainly, Autofocus is very useful for many image applications. Also for people with deteriorating vision. We are working on Leica adequate solutions in the future. We kindly ask for your understanding that we cannot unveil any further details now.

[17:51:38] **Leica Moderator 4>** MJS: With the R8/R9 DMR combination will I need to constantly check the LCD screen for any 'blown' high lights, which is typical of the Nikon D100?

**L4:** You can get the blown highlights marked red if you set the camera to 'clipping warning' on.

[17:51:47] **<Leica Moderator 3>** e: I meant full-frame mode

L3: Do you mean the question why we have a lens prolongation factor? We were unable to offer a full-frame solution as we wanted to offer a solution to users of the existing R8 and R9 cameras without modifications. The sensor had to be placed in the existing architecture of the camera. This is why we could not use a larger sensor than the one we have decided to use.

[17:52:44] **Leica Moderator 3>** e: This chat is very good, excellent questions and candid answers -- thank you!!!

**L3:** Great customers, great company, great chat, great products.... Isn't it?:-)

[17:53:00] **Leica Moderator 2>** John F: Are there any Leica wide angle lenses (old or new) that we should avoid with the DMR? Could we use the fisheye 16mm, the older 21mm Super-Angulon-R or the PC lenses such as the old PA-Curtagon 35mm f4 or current 28mm PA lens? Thank you **L2**: To our experience there are no limitations.

[17:53:06] **Leica Moderator 4>** jira: Can you tell how long will the DMR work on one battery charge?

**L4**: Depending on the behaviour of the user. But I would say you can use one battery the whole day.

[17:53:09] **Leica Moderator 1>** matthew: The 1.37 lens factor is a great annoyance to wide-angle lens users, and Canon and Kodak have full-frame-digital SLRs of high quality (albeit not with the best lenses!). Please ensure that the M digital and the next-generation R digital camera have full-frame sensors. Full-frame-sensor SLRs eventually will be in the mainstream... **L1**: In the digital back solution full frame was not possible because the sensor has to fit into the film frame of the camera. Nevertheless, we are convinced that a slightly smaller sensor than 24x36 is the best compromise between optimum quality and user friendlyness.

[17:55:57] **Leica Moderator 3>** e: I understand the physical limitation of the large sensor, but do not understand the "real world" implications... what does this mean in practical, photographic terms???

L3: In practical terms this means that a 21 mm lens will work like a 28 mm lens. Just multiply the focal length by 1.37. You will see a little light frame in the viewfinder, indicating which area will be captured in the digital application. It is a little bit like using a Leica M: You see some of the action around the image which enables you to react quickly.

[17:56:11] **<Leica Moderator 4>** vasken: Most probably, the M Digital will come with a full frame sensor since it is not a "retrofit". Hence it would be superior to the DMR because of better resolution, and aspheric lenses. How could the DMR compete with that?

**L4:** The competition between M and R was never present. They complete each other as two systems analog and digital

[17:56:15] **Leica Moderator 1>** John F: Could it be possible to at least include autofocus in the APO-Module-R (400mm to 800mm) system. Customers would then only have to buy (or upgrade?) a new lens "head" . There is a strong demand for AF among pros who cover fast moving sport subjects. Thank you.

L1: We have to say that we have lost those customers doing sports photography and daily photojournalism to other brands. Therefore, we do not intend to integrate autofocus in our APO-TELYT Modular System (by the way, the focusing is made in the focus module).

[17:58:36] **Leica Moderator 4>** John F: I have a suggestion for Leica: could it be possible to put MPEG (or MOV) files about how to use the DMR (functions, etc..) on the Leica Camera web site so that future users can at least get a "hands-on" experience until the DMR is ready for sale? Thank you **L4:** It is already on the webside as a flash animation.

[17:59:37] **Leica Moderator 1>** MJS: Will it be possible to upgrade the DMR with future hardware developments?

L1: All hardware components are strongly related to each other, e.g. mainboard to sensor, for hardware up-grade, this would mean to exchange the complete interior of a digital system. From that point of view. this does not make much sense. But we are considering to offer solutions for DMR customers to upgrade to the latest technology.

[17:59:43] **Leica Moderator 3>** SteveT\_NYC: Being a satisfied D2 owner, I have to honestly say that i'm more looking forward to either the D3 or the Digital-M rather than the R series. Will any of the technologies being developed for the DMR carry over to the digital M?

L3: Hello to The Big Apple. We are glad to hear that you are happy with the Digilux 2. The Digital Module R would offer you improved quality and versatility with the complete lens program. So we still recommend you to take a careful look at this new products. We also continue to work on other digital products. All the experience we currently gain with the DMR helps us for these projects. But it is too early to give more detailled information on this.

[18:00:18] **Leica Moderator 2>** e: If, as you say, you have lost the sports and journalist photographer, then how do you define your market going forward? What defines the Leica digital camera customer? **L2:** Our main target groups are reportage, nature and fine art photographers.

[18:00:47] **Leica Moderator 4>** hiro sasaki: You have mentioned protective filter degrading diagrams in DMR newsletter. Does the "protective filter" means the unique hard-coated dust cover in front of DMR sensor? **L4**: I am not shure what you are talking about...

[18:01:33] **Leica Moderator 1>** MJS: Would basic Leica R10 development allow film and full frame digital version to be produced? Or an R10 with a full frame DMR?

L1: Thank you very much for your enthusiasm for the next generation digital product, but give us a chance to introduce this one first, before talking about the next one;-)

[18:01:52] **Leica Moderator 4>** grumpitoad: Could I ask why Leica favour quicktime instead of \*avi - will the DMR allow a movie file to be shot? **L4:** The DMR is a still camera. It makes no movie files at all.

[18:01:59] **Leica Moderator 3>** e: What is the link to the flash animation and also to the photos of the DMR?

L3: Here it is: http://www.leica-

camera.com/produkte/rsystem/digitalmodul/index\_e.html See the chapters 'feel the DMR' and 'download'.

[18:02:48] **Leica Moderator 2>** summicron2: As the number of users of R4-5-6-7-e cameras is bigger than those of R8-9, why do you not try to make a specific digital back for these users ?

**L2:** We need communication between the back and the camera and this is only possible from the R8 on. So the only solution for the users of R4-5-6-7-e

cameras is to enjoy the perfect quality of the lenses and invest into an R9 and DMR.

[18:04:06] **Leica Moderator 1>** grumpitoad: Moving away from the journalist market is quite a big market to loose - are there plans to try to compete there in the future?

**L1:** Leica will serve their customers with specific solutions adapted best to certain image applications. The effort to re-compete with "the big guys" is not possible for a small 1100 employees company like Leica.

[18:04:22] **Leica Moderator 3>** seamus: If your market is also nature photographers, just their the group of digitalphotographers is growing very fast.

L3: You are right, nature photographers are an important customer group for us. We hope that they will love the DMR if they want to shoot digitally. Anyhow this kind of photography is one ideal future application of silverhalide photography.

[18:04:53] **Leica Moderator 4>** matthew: Will the DMR allow the saving of image files in the new "industry standard" format that Adobe recently introduced?

**L4:** We are researching concerning that.

[18:06:32] **Leica Moderator 1>** MJS: I know of memory card failures in the past. Would it be sensible to use two memory card slots in the DMR to provided dynamic backup?

L1: As the space is very limited in the digital back itself we have chosen only one card slot. From our DIGILUX customers we know that card failures or defects are quite rare, so we don't expect problems there.

[18:07:41] **Leica Moderator 4>** scanner: I use a Mac G 3 with 9.2 Which part of the DMR applications can i use ? I Think jpeg and Tiff but the rest only with OS X.

**L4**: All applications require OS X .

[18:08:09] **Leica Moderator 1>** MJS: I know of memory card failures in the past. Would it be sensible to use two memory card slots in the DMR to provided dynamic backup?

L1: by the way, with the digital module R you are able to shoot a "film back-up". That's the safest way to store images.

[18:09:45] **Leica Moderator 4>** John F: It was mentioned that the DMR will save in AdobeRGB colour space and LeicaRGB (I think). Could you explain what you mean by this? In which color spaces will the DMR save files? **L4:** Using TIFF and JPG you can choose between ADOBE RGB and SRGB. Using

**L4:** Using TIFF and JPG you can choose between ADOBE RGB and SRGB. Using RAW you can save images in the 'Leica DMR default' input colors space.

[18:11:06] **Leica Moderator 1>** matthew: In addition to nature photography, architectural photography also seems an ideal market for Leica to exploit. But a new, Leica-design PC-shift lens of 28mm (or perhaps 24mm, but NOT 35mm) focal length would be desirable, to replace the Schneider-built current 28mm, which has uncharacteristic-for-Leica, weak performance at wide apertures. Though probably not fast sellers, please don't abandon the architectural lens market!

L1: We agree with you, that this type of application is a strong market for Leica, but the current 28 mm does perform very well at wide open apertures and is fully up-to-date. If you own such a lens, and you are not satisfied,

there is maybe something wrong with the lens.

[18:11:24] **Leica Moderator 4>** scanner: So it is a must to install OS X on my G 3 ? 10.2 is sufficient ? On my 9.2 it is not possible to load jpeg and tiff ? **L4:** Please refere to apple. You can open JPGs and TIFFs of course also with 9.2 and lower.e

[18:12:22] **Leica Moderator 3>** seamus: L3 I don't understand? Look at some Amerika Nature Photographer, some starters never so a film! **L3:** Nature photography requires a lot of patience to wait for the right moment. So it is not a big advantage to gain time with digital solutions. You shall probably concentrate on the subject so checking the result on a screen might not be a real advantage in many situations. And nature photography happens quite often under extreme temperatures. Film is a good storage media in all this cases. This is why we think that film shall really be considered in the future. Even if a photographer has started taking pictures only with a digital camera. The DMR offers the possibility to take a decision based on the specific conditions. Probably this is the best solution!

[18:12:40] **Leica Moderator 1>** e: So witht eh DMR you simultaneously shoot both digital AND FILM at exactly the same time?

**L1:** Of course it is NOT possible to shoot analog and digital at the same time. We just tried to make a little joke on the back-up subject. But, the digital back can be exchanged in less than one minute to the film back.

[18:12:53] **Leica Moderator 2>** jira: Who is actually producing the DMR hardware, is it Leica od Imacon? Given the recent merge of Imacon and Hasselblad and your projected long life span of DMR production, do you see any possible problems?

**L2**: We produce the DMR together with IMACON. We see no problems in supplies from Imacon. Despite the merger we are working together very closely.

[18:13:23] **<Leica Moderator 1>** MJS: How does this 'film back-up' function? **L1:** Please see answer to "e"!

[18:13:48] **Leica Moderator 4>** John F: According to your specs, the DMR does not use a "Moire" or Anti-Alias filter. Will this still be the case with the final version of the DMR, i.e. no AA filter?

**L4**: No hardware AA filter, it is a software solution.

[18:14:38] **Leica Moderator 4>** martien: As the sensor is 16 bit, has it alsp a broader dynamicrange than 12 bit D-SLR's?

**L4**: Dynamicrange does not depend on the sampling depth.

[18:15:01] **Leica Moderator 1>** John F: According to your specs, the DMR does not use a "Moire" or Anti-Alias filter. Will this still be the case with the final version of the DMR, i.e. no AA filter?

L1: Yes, there will not be a physical AA filter. It will be done via software (anyway, the sensor focal plane has to fit in the film rails of the camera, so there is no space to add a further piece of glass).

[18:15:13] **Leica Moderator 4>** richsolomon: how long does it take the DMR to fully charge - how long does the batter last (ofcourse depending on temp it varies).

L4: 2 hours charging, lasts very long.

[18:15:36] **Leica Moderator 3>** MJS: People in this chat room ask for auto focus, and people in the Leica forum also use Leica R lenses on Canon (and Nikon?) bodies. I guess they prefer Leica quality to auto foucus. Is there a good market for Leica to produce R lenses with Canon and Nikon mounts? **L3:** The question of finding an attractive Leica AF solution in our R segment has been checked carefully many times. We did not find a way which would be attractive both for our customers and for us as company. We also do not have a plan to offer our lenses with other mounts. But we mentioned earlier that some companies do offer adapter rings.

[18:15:38] **Leica Moderator 1>** e: I get the joke... but can you see how phenomenal a simultaneous film+digital solution would be? **L1**: Yes, this would be phenomenal. But we are afraid that this may stay a dream ;-)

[18:17:48] **Leica Moderator 1>** MJS: Film backup, OK, I understand the German humour! Nice one. Of course it works easily from Digital to film, but the otherway round would require the inconvenience of winding the film back. Glad I have two R8 bodies!!

L1: You are a lucky man!!!

[18:17:55] **<Leica Moderator 4>** scanner: Thanks ! I will install OS X 10.2 so This problem is solved. 10.2 is right ? how is the dustproblem solved ? Can i use a piece of cloth or is there a cleaner from Leitz ?

**L4:** We recommend 10.3, we recommend optical cleaning towels like microfibre. If you are shure that your shirt is clean and has no hardfibres it is better to use this than nothing.

[18:18:01] **Leica Moderator 3>** seamus: L3, I'll will be waiting for the DMR, you have some points but please keep looking at the market even in nature photography it is chancing very fast.

**L3:** Good to hear that you will take a look at the DMR. We will follow the market trends actively and will continue our close relationship to nature photographers to make sure that we have the right products for them.

[18:19:01] **Leica Moderator 1>** richsolomon: looking at the DMR, have you considered a hand strap attachment?

**L1:** The DMR will be shipped with a hand strap similar to this one used on the Motor-Drive R8/R9. As the whole system weighs 1400 grams, we recommend the Neopren-carrying strap.

[18:19:22] **Leica Moderator 2>** hiro sasaki: Now, I have just downloaded your new samples thank you. It is so beautiful. Which lens did you use for this new sample?

**L2**: We used the new 28-90mm and the 2.8/19 mm (church).

[18:20:00] **Leica Moderator 4>** John F: Have you found the answer in your technical manuals about the DMR's AD/C? Will the DMR use a 14-bit AD/C or a 16-bit AD/C? Thank you.

**L4:** Unfortunately I have no time at the moment looking at the specs. ;-)

[18:20:37] **Leica Moderator 3>** seamus: L3, ???? never seen some close relationship for the Netherlands ??

L3: Than let us start the relationship. Come and meet us at the factory for a factory tour. I hope to find some time to meeting you. Ask for the people in Corporate Communications taking care of Professionals!

[18:20:52] **Leica Moderator 2>** e: I know this is off-topic, but until the DMR comes out... I'm going to buy a 5mp Lumix DMC-FZ20K... unless you suggest otherwise for a camera in that class.

**L2:** If you need a 12x zoom consumer camera the FZ20 is definitely a very good choice.

[18:21:08] **Leica Moderator 4>** richsolomon: if you were able to add something to the DMR, but were unable either due to technical or other limitations, what would it have been ...

L4: MP 3 player?

[18:21:24] **Leica Moderator 1>** martien: O,k, wrong formulation, I 'll try again: the DMR looks more like a digital back for MF (16 bit, CCD, no AA-filter), does it have a broader dynamic range than other D-SLR's at the moment?

**L1:** We expect the DMR solution to be one of the leading in terms of overall image quality. Now it pays off, that we have teamed-up with a medium format digital back manufacturer.

[18:22:06] **<Leica Moderator 3>** John F: I realize that Leica has abandoned the idea of AF (so much for the Corefot..) but might it be possible in the future to use interchangeable AF lenses on a future Digilux 3? I hope Panasonic is considering such a idea ..

L3: We are considering a lot of ideas for our new products but just think that this is not the right time and place to release details...

[18:22:19] **Leica Moderator 2>** hiro sasaki: Which lens did you use for old samples(woman face)?

**L2**: We used the Apo-Macro-Elmarit 1:2,8/100mm.

[18:22:29] **Leica Moderator 1>** MJS: Will Leica include the Neoprene carrying strap in the DMR kit?

**L1:** The Neopren carrying strap will not be in the DMR kit, as every photographer has certain preferences.

[18:24:05] **<Leica Moderator 3>** Brian1: Will the format of the iital M be the same as the digital R

L3: Hello Brian. It is really too early to release information on this topic. But the sensor in the digital M will not be smaller than the one we use in the DMR, this is sure!

[18:24:33] **Leica Moderator 2>** seamus: The did for me, but somebody should trade and promote the DMR properly in the Netherlands **L2**: We are working on this.

[18:24:40] **Leica Moderator 4>** Doc A: I am an astronomer so interchangable lenes to long telephoto and long exposures is very important to nature photography I hope you will work very hard to open up the time exposure issue and solve this problem. This chip is a ver good chip for low noise so that should not be a problem since it can be delt with in Photoshop. Is there a way cyrrently to subtract dark frames in the camera?

**L4:** Thanks for the advice. There is no way currently to subtract dark frames in the camera.

[18:24:52] **<Leica Moderator 3>** martien: Does the DMR-sensor use microprisms?

L3: We use microlenses.

[18:25:37] **<Leica Moderator 3>** seamus: L3, I just wanted to give a signal for now best regards and succes with the DMR !!

L3: Thank you very much.

[18:25:38] **<Leica Moderator 2>** richsolomon: will the DMR be marked " made in Germany"

L2: It is MADE IN GERMANY.

[18:25:39] **<Leica Moderator 1>** e: where can I see a picture of the neoprene strap... a quick search on the web did not reveal any photos.

L1: Please e-mail to our information service info@leica-camera.com. They will provide you with a picture.

[18:27:02] **Leica Moderator 2>** summicron2: 25 years ago the leica R3 was a great success because of its moderate price, including many japanese components. Why do you not try to market a digital R at a moderate cost, made in China, as some of the leica microscopes?

**L2:** In general our customers enjoy the high quality and precision from our Made in Germany products.

[18:27:52] **<Leica Moderator 4>** John F: I have read in LFI that auto TTL flash with the DMR will be possible but only with the R9 due to an extra meter cell in the R9's prism, whichis absent in the R8 (automatic exposure done by the flash unit for R8). Is this correct?

**L4**: I think you are talking about the HSS function and this is only possible with R9.

[18:28:28] **Leica Moderator 4>** Doc A: In the field can the camera be directly cannected to the computer and to a seperate power supply instead of using the batteries?

L4: Yes.

[18:28:30] **Leica Moderator 1>** richsolomon: will focus confirmation be part of leica r in my lifetime --- i'm mid 30's?

L1: You already have decreased your expectations to Leica a lot. In former times, people like you were asking for AF;-)) As mentioned earlier, we are working on innovative solutions but it is too early to unveil. Sorry, we can't give you further information now.

[18:29:08] **<Leica Moderator 2>** hiro sasaki: Which ISO sensitivity did you use on new samples? I think it lack EXIF information.

**L2**: ISO 100

[18:30:22] **Leica Moderator 2>** richsolomon: will there be new books published by leica on digital photograpy using the DMR **L2**: It's a good idea.

[18:30:23] **<Leica Moderator 1>** matthew: A small request: If I get the DMR for my R9, I will need a new compartment case. I have investigated the Leica compt. case solutions, but no where can I find pictures of what the interiors of these rare cases look like. No dealers in my state (Florida) carry the item, and I do not want to order without more information. A text description is not enough.

L1: Together with the delivery scope there will be a pouch to store the digital back when it is not in use. Actually, we are offering small and large "outdoor" bags. They will also take the R9 with the mounted DMR. Compartment cases are no longer available since a couple of years.

[18:30:40] **Leica Moderator 5>** Doc A: I must commend you on your Leica Akademie that you held in Seattle where we got to see the DMR. Ralph did a great job! Thanks, we? II pass on the message!

[18:33:26] **Leica Moderator 4>** martien: Moir? is still a serieus issue in digital backs for MF, will it be totally ruled out by moir? software filter in de DMR? **L4:** In most cases yes, but there is no 100% safety because the filter has to work very sharp.

[18:33:36] **<Leica Moderator 2>** e: I know you said the Lumix FZ20 is a good choice, but in light of what you know is in the pipeline, would you go out and buy one now or would you wait... no specifics, just don't want to suffer buyer's remorse in the near future ;-)

**L2**: You should of course wait for the DMR but for digital snapshots the FZ20 is a good choice.

[18:34:23] **Leica Moderator 1>** e: When is the absolute "soonest" date I can expect to actually receive a DMR, assuming the current plan?

L1: We will deliver according to when we received the orders, beginning in April 2005. Even after deliveries have started, i.e. the initial orders have been met, back-orders may continue to result for some months, but we will try hard to keep them as low as possible by adjusting production. As of today, we expect to be able to satisfy all existing orders by late summer 2005. If you have not ordered yet, earliest date to get the DMR is late summer. Sorry to have no better answer.

[18:34:43] **Leica Moderator 2>** e: When is the absolute "soonest" date I can expect to actually receive a DMR, assuming the current plan? **L2:**We will deliver according to when we received the orders, beginning in April 2005. Even after deliveries have started, i.e. the initial orders have been met, back-orders may continue to result for some months, but we will try hard to keep them as low as possible by adjusting production. As of today, we expect to be able to satisfy all existing orders by late summer 2005

[18:35:55] **<Leica Moderator 1>** matthew: To L1 regarding my compartment case question: The small and large "outdoor" bags are the ones to which I was referring. I can find no images showing what the interiors of these bags look like on your site or in your system handbook. Since personal inpsection of these 2 bags is impossible before purchase, images are needed. The text descriptions in the handbook are inadequate.

**L1:** The interior of those bags is completely flexible by velcro compartments. Please mail to info@leica-camera.com then we will send you some pictures.

[18:36:32] **Leica Moderator 2>** hiro sasaki: Have you implemented the audio histogram which you mentioned the last chat? **L2**: Yes.

[18:37:51] **Leica Moderator 1>** John F: Will there be accessories available for the DMR, such as (z.b.) a 1.3x magnifier for the Leica R (if one does bot wish to use the special screen) or a separate digital file storage unit/viewer (the kind with built-in hard disk and LCD screen)? Thank you for your patience - you're doing a great job!

L1: The only way to get sharp edges of the capture area it is necessary to use the special screen. A viewfinder magnifier would only help to have a bigger image.

[18:38:48] **Leica Moderator 3>** richsolomon: are there any plans for different editions of the DMR at this .... either to the eye or technically **L3**: Right now we put any effort possible on having a technical perfect products available in April. There are no plans of introducing different versions - neither in look and design nor in technical features.

[18:38:52] **<Leica Moderator 2>** vasken: Given the delay for the DMR's release, is there a chance that Leica might try increasing the sensor size to reduce the 1.37 factor? The main advantage would be to avoid any unnecessary perspective expansion when using wide angle lenses. **L2:** We want to bring the DMR to market as fast as possible and the extension factor of 1.37 is fixed and the only possible solution for a digital back.

[18:39:41] **Leica Moderator 4>** martien: I work with the Kodak DCS 760, it has a beautiful way of recovering thre highlights (with photodesk), will there be such a function in the software wich comes with the DMR? How much can je 'recover' plus and minus?

**L4:** I don't know the Kodak function, but there is the possibility to enhance the highlights using the curves in flexcolor.

[18:40:15] **Leica Moderator 3>** billh9607: I joined late - will this discussion be posted where we can download and read it?

L3: Hello to the late arrival! We will publish a protocol soon. So you will be able to read what you have missed in the last 1 1/2 hours.

[18:41:41] **<Leica Moderator 3>** John F: Will there be special "package deals" in April 2005 from Leica if one buys a Leica R camera and DMR, or will those "rebate" offers end after Dec 31, 2004?

L3: The present voucher action ?Get ready for the future now? will of course be extended for 4 months. This concerns the purchase of R bodies and lenses (new final date Feb. 28th, 2005) and the final date for cashing the voucher when purchasing a DMR (new final date June 30th, 2005)

[18:41:55] **<Leica Moderator 4>** petert531: Has anybody talked about release of full frame DSLR

L4: yes, please download the protocoll in a few days.

[18:42:22] **Leica Moderator 4>** Doc A: Is there a place to read more about flexcolor and what it does?

L4: Please check www.imacon.dk.

February 2005 at our main dealers.

[18:42:36] **Leica Moderator 1>** richsolomon: depite the delay will dealer now have a protype availble, certainly you have some at this point? **L1:** We will not release products out of our range until it is completely finished. Experiences with products in the past which have not been fully developed were sometimes negative. We intend to have samples by

[18:44:02] **<Leica Moderator 4>** richsolomon: will the ability of multiple exposures be avaiable with the DMR

**L4**: No, but you can easily match two images with Photoshop.

[18:44:16] **Leica Moderator 3>** billh9607: Can you give me a sense of how it will compare to the image quality from current cameras such as the 1Ds MKII? **L3**: You can gat a sense of the quality when downloading the sample files from the web. We will not release direct comparisons to competing products. Independent tests will show that we excel!

[18:44:29] **<Leica Moderator 1>** Thorsten: What ISO and F stop was used for the chuch shot with the DMR and 19 mm 2.8?

L1: ISO 100 and open aperture.

[18:45:48] **Leica Moderator 1>** John F: Which batteries will the final version of the DMR use? Will it still be lithium-lon-battery?

**L1:** Yes it will be a 1800 mAh Lithium Ion battery which is externally rechargeable in one hour.

[18:46:03] **Leica Moderator 3>** jira: It looks obvious to me that for Leica, to develop any digital camera, you have to cooperate with an external company. Do you foresee any long term strategic partnership in this area?

L3: It is right, we do want to use partnerships for our digital solutions. This is why we have a good partnership with Panasonic and Imacon. We will have this kind of partnerships also in the future.

[18:46:30] **Leica Moderator 1>** martien: Wil there (ever) be a monochrome DMR, I think this would be a 'typical Leica thing' to make great b&w digital photos.

**L1:** We had the same thought. If we get enough people together, we are gonna make it!

[18:46:37] **Leica Moderator 4>** vasken: L2, why cant the frame surrouding the sensor be made thinner now, or at least in the future? Would the sensor be upgradable?

**L4:** If you look at the DMR sensor you see that the frame is already quite thin. I do not expect that there is much space saving potential.

[18:47:12] **Leica Moderator 3>** hiro sasaki: Do you have a plan to disclose information related to digital-M development like DMR? It would be appreciated.

L3: We have announced that we work on this project. But we currently plan to only release further information very close to the market introduction date.

[18:48:31] **Leica Moderator 4>** billh9607: OK. How does the resolution compare to what you get from a film like Velvia, or a very fine grain black and white?

**L4:** The sharpness looks totally different. The resolution is at least as good as the velvia 50.

[18:48:53] **Leica Moderator 3>** billh9607: When is the market introduction date for the digital M?

**L3:** We have mentioned the year 2006 and there are now new information available on this topic.

[18:49:43] **<Leica Moderator 4>** John F: Why did you include only IEEE 1394 FireWire in the DMR and not USB 2.0 as well? Thank you

**L4:** because the firewire was used by most photographers at the beginning of the project.

[18:49:56] **Leica Moderator 1>** John F: The current specs call for sensitivity of ISO 100 to ISO 1600. Could it be possible in future (software) upgrade to allow for ISO 50 as well?

**L1:** We have decided for ISO 100 as a standard speed where the sensor delivers its best quality. Putting ISO 50 would mean a potential quality decrease. The fact that R8 and R9 offer shutter speeds up to a 1/8000 s will

allow to shoot at full open aperture at ISO 100.

[18:50:31] **Leica Moderator 4>** Doc A: What Kodak chip are you using? Is CMOS in your future?

L4: The DMR sensor is a CCD. There is no other plan sfor the future.

[18:50:37] **Leica Moderator 1>** richsolomon: what is the size of the DMR lcd screen, is it smaller than the D2's.

L1: It is 1.8" as the space is very limited at the back.

[18:50:37] **Leica Moderator 3>** Brian1: Will Leica continue to make film cameras after both M and R digital cameras are on the market **L3**: Yes. For sure. And guess what: I will try all our digital products but will continue to shoot with my good old films. I just like them. At least for some very important and emotional moments!!!

[18:51:55] **Leica Moderator 2>** hiro sasaki: Sorry if this has already discussed, What type of application do you plan to bundle with DMR? Image viewer, RAW developer and so on..

L2: We deliver ACDSee, Photo Shop Elements and Flex Color in the bundle.

[18:51:59] **Leica Moderator 4>** scanner: The DMR has a range from iso 100 till iso 1600. have you made pictures with the iso 1600 choice and if yes, you have no problem the ammount of grain on the pictures?

L4: Compared to 1600 film it's amazing good.

[18:53:09] **Leica Moderator 1>** billh9607: What is the new information on the release date for the digital M? Will it also be 10MP, using the same sensor in the digital R?

**L1:** Market introduction is planned for photokina 2006. The sensor will have at least 10 mega pixels. We cannot give further details at this time.

[18:53:29] **Leica Moderator 4>** billh9607: Please explain what you mean when you say the sharpness looks totally different.

**L4:** Because there is no grain at high magnification the images look much sharper than on film.

[18:53:43] **Leica Moderator 4>** vasken: L4 Can you explain the difference between sharpness and resolution and what do you mean by sharpness being different compared to film?

**L4:** Because there is no grain at high magnification the images look much sharper than on film.

[18:54:20] **Leica Moderator 2>** hiro sasaki: What is "Flex Color" application? **L2**: Flex Color is for converting raw into tiff and jpg.

[18:54:30] **Leica Moderator 1>** Doc A: you missed my question. What chip are you using? like KAF-10010 ect?

**L1:** We use KAF-10010. This sensor was developed in cooperation with Kodak ISS for Leica.

[18:55:11] **Leica Moderator 1>** John F: Is there a chance that we might see a "prototype" (or a mockup) of the Digital M at the next PMA 2005? **L1:** We do not intend to show a prototype at PMA 2005.

[18:55:12] **Leica Moderator 4>** John F: Will it be possible with the DMR to save photos in both RAW and JPEG format at the same time? Is there a menu

option for this?

L4: We are still working on that issue and hope that we can implement it.

[18:55:58] **Leica Moderator 1>** martien: Any plans to bring out a (cheaper) R9 without the possibility to shoot film, so solely for the DMR? Maybe with extra info in the viewfinder, like whitebalance and so on?

**L1:** This could be a good opportunity for new customers. Thank you for this suggestion!

[18:56:36] **Leica Moderator 5>** richsolomon: is the manual for the DMR available on line at this time?

L5: No, it will be available along with the DMR

[18:56:42] **Leica Moderator 2>** hiro sasaki: Are those bundled application English only or Localized for international market?

**L2**: They are available in english, sorry :-(

[18:57:36] **Leica Moderator 4>** vasken: L4 Could you then say that the DMR will produce pictures comparable if not better than medium format in terms of resolution and sharpness?

**L4:** A good medium format image has more details than a DMR image. But the sharpness impression is comparable.

[18:57:59] **Leica Moderator 3>** scanner: I have ordered allready the DMR by Odin Holland in the hope of a nice Christmas present but I red that the DMR will come in April. I admire the courage of leica to say that a perfect product has advantage above the speed of bringing it on the market.

L3: Thanks for this statement. We really would love to bring the DMR as a perfect Chrismas gift. But we appreciate that you understand that we had to give priority to quality in the situation we have currently. We will work very very hard to make everything perfect now. The deliveries will be effected based on the date of order. So ordering early will give you an advantage!

[18:58:46] **Leica Moderator 1>** John F: Can you confirm if the Digital M will use the same Kodak KAF-10010 sensor as used in the DMR? Thank you. **L1:** Digital M will use a next generation CCD with adapted micro lens structure in order to fit current LEICA M lenses.

[18:58:49] **Leica Moderator 4>** jira: Are you using a camera position sensor to automatically distinguish vertical/horizontal frame? **L4:** yes, we do.

[19:00:14] **<Leica Moderator 2>** hiro sasaki: Thank you for your interest, have a good night :-)

[19:00:22] **<Leica Moderator 1>** richsolomon: Since Leica is really about lenses and not digital backs, will there be anything new coming out to enhance pic quality within a digital environemnt ie. a new series of lenses or filters?

L1: Our current lenses fully explore the capabilities of the digital back and they have even more performance for further digital applications to come.

[19:01:01] **<Leica Moderator 3>** scanner: Sorry, my question was not complete. What was the reason to make the decision for April? Only software items? But April is not for sure at the moment? Now I think to buy first the D 2 and afterwards the DMR. Can i use the D 2 on my Mac G 3 9.2 or also to OS X 10.0 or 10.2? I need a digital camera for professional work so I think it is

wise to buy first the D 2 What's your opinion?

L3: We only had software problems. the hardware is working perfectly. We prove this with the sample photographs on the web. The Digilux 2 is a great intermediate solution. I just like the camera very much. It is a compact alternative and offers real photographic experience. Try it now and use the full versatility of the DMR once it is available in April. We are sure that April will be the introduction date. No further delays are foreseen.

[19:01:56] **Leica Moderator 1>** John F: Is Leica going to introduce (or is considering) new M wide-angle lenses (z.b. 15mm) specifically for the Digital M?

L1: All new Leica M lenses introduced in the future will always be able to shoot film and digital. Of course, if we use a smaller than 24x36 sensor, we need a new short focal length.

[19:02:25] **Leica Moderator 5>** The Leica team would like to thank for your participation and wish you a pleasant evening (or morning;-)). Later this evening, the complete chat will be available on our homepage. Thank you and good by