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INSIDE PHOTOKINA NEWS



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The 3rd edition of Photokina News will be available Monday, September 26

New 35mm Cameras Indicate Future Trends

by George Schaub

photokina—New products, prototypes, vaporware and twinklings in the eye are all a part of the photokina experience. The halls are filled with new products and product ideas from a wide variety of manufacturers. Cameras, films, digital imaging equipment and more keep even the most energetic of attendees moving rapidly to keep up with all the introductions. Look through the pages of today's photokina Daily for informa-

tion on these products, plus check the reports from our team of imaging journalists.

This report is geared toward what has come to be called "conventional" or "traditional" imaging. But there's nothing conventional or traditional about the new products in this

Updated SLRs, high-end RAFs and lens/shutter galore

group. They are manifestations of the highest state of the art, and represent, in many cases, the highest refinement of the craft. Here are some highlights:

SLR Upgrades

On the 35mm SLR side, there's the **Canon EOS-1N**, the new flagship SLR in that company's line. The



EOS-1N has an improved AF/exposure linkup, three layers of Custom Functions, and a whisper-quiet drive and rewind mode. The "N" in the name is a giveaway as to many of the camera's attributes. An upgrade of the EOS-1, this camera shows that pro photographers had a great deal of input in the design and internal workings of this most impressive picture-taking machine. Plus, Canon has paid attention to the needs of photographers when it comes to flash, and their 540EZ flash, which allows for super wide-angle coverage (24 to 105mm zoom head, with a built-in wide panel for handling 18mm focal length lens coverage).

Bragging rights for an SLR winner seem to be granted to **Minolta** this year with the winning of what might



be dubbed the "Triple Crown" of achievements. Their 700si has won

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DIGITAL CAMERAS ON PARADE: A Variety of Approaches at Photokina

by Don Sutherland

"The future direction of cameras" is the popular way to describe so-called filmless photography systems, and a survey of new products at Photokina '94 could encourage the belief that electronic cameras are the inevitable destiny of photography. But are they really? The equipment on exhibit, both prototypes and shipping (or soon-to-ship) products, shows "the future direction" on a course of many possible destinations.

As we examine a cross-section of electronic cameras at the show, we should bear in mind one aspect of photography that has existed since the beginning. It is that there's never been any single "best way." Are SLRs better than rangefinder cameras, or are transparency films better than negative films? A single photographer will answer differently, according to the requirements at hand. Why should anyone expect this to change with the advance of "filmless" cameras?

States one of the sources that is best-informed and most impartial on the subject of "filmless" photography: "The studio must be working mainly on major productions, such as catalogues [to obtain the maximum benefit from digital cameras], since the advantages of digital photography appear primarily with se-



New products, prototypes, vaporware and twinklings in the eye are all a part of the photokina experience. But there's nothing conventional or traditional about the new products on display at this year's show.

ries of shots." Why do large photographic undertakings benefit the most peripherals and the indispensable know-how in handling the recorded data are required."

Some sources imagine that digital photography is a simpler procedure than film-based photography, but the author of these two statements knows better. The author is

Sinar, which announced on Thursday that its model e camera will be available in the first quarter of 1995 with the Kodak 465 digital back (introduced to the world in Wednesday's PTN Photokina News).

The "sacrosanct principle" of the Sinar camera from its beginning has

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WORLD FAIR IMAGING • SOUND • PROFESSIONAL MEDIA

NEW RICOH SLR

photokina — The comprehensive automatic features of the RICOH XR-X 3PF allow ample scope for individual manual picture composition. Confusing technology has been reduced to the essentials necessary for ease of use. The LCD display enables complete control of all functions and setting for perfect



photographic results. The RICOH XR-X 3PF uses powerful computerized operation to give a wide variety of creative modes.

At the heart of the RICOH XR-X 3PF is an integrated 24 kbyte CPU. This coordinates and stores the ver-

satile modes for creative photography on a E²P ROM chip and constitutes the real intelligence of this creative camera. The comprehensive electronic control functions guarantee greater reliability and quality of the photographs. Numerous creative modes can be manually selected and complete the versatile performance choices.

The user is free to operate the RICOH XR-X 3PF manually or to use the automatic modes for a wide range of photographic effects. If for instance he or she does not wish to set the flash shutter speed or aperture, the automatic selection of these settings can be left to the RICOH XR-X 3PF. Shutter speeds of up to 1/3000 sec. produce razor sharp images. The fastest shutter speed in manual mode is 1/2000 sec.

The new RICOH XR-X 3PF camera can be operated either manually or automatically depending on the situation or the photographer's choice.

NEW HORSEMAN PRODUCTS AT PHOTOKINA

photokina — Komamura Photographic Company, Ltd. of Tokyo, is celebrating the rebirth of a classic—the Horseman LE view camera.

Unlike most other manufacturers' stripped down entry level offerings, the Horseman LE is based on their proven L frame support, and shares the same sturdy ergonomic frame and many of the deluxe features found on their more

advanced and expensive cameras.

The LE includes such professional features as geared rise, fall and shift mechanisms; lens and film axis tilt; and rack and pinion focusing. Like the other Horseman L cameras, the LE can fold flat for travel and storage.

The Horseman LE gives entry to the famed Horseman Accessory System, the most complete line of universal accessories available from any large format manufacturer.

Also debuting at photokina will be an infrared metering interface for the Horseman ISS Shutter that works with the Minolta Flash Meter IV.

BRONICA CAMPHOTO

photokina—The ZENZA BRONICA CAMPHOTO VX3000 is a camera which can be used for photographing still pictures (on standard emulsion type film), as required, while video recording at the same time. The CAMPHOTO VX3000 is a completely new type of image recording device of high performance and high image quality, which has not been available previously, and is designed to photograph the same subject at the same image magnification at the same time, by optically dividing the light rays entering through the same photographic lens for focusing on the CCD image sensor (of the video tape recorder) and the surface of the emulsion type film.

Simply attaching the NIKON F4S to the CAMPHOTO VX3000 (CCD camera head) makes it possible to coincidentally photograph live (video) and still (emulsion film) images through the lens of the F4S. The scope of video photography can be enlarged tremendously by taking advantage of the wide range of interchangeable lenses which are available in many types, as well as the various types of accessories, in addition to the high quality automatic functions of the F4S.

The CAMPHOTO VX3000 incorporates compact, low power con-

sumption type, 1/2-in, 3-chip CCD image sensors which have been de-



veloped based on the newest solid-state technology. It is a color camera module with a high performance horizontal resolution of 720 TV lines (for the camera), which makes it highly suitable for broadcasting stations.

Tokina Light Stands

photokina — Tokina Co., Ltd., the marketing arm of Universal Electronics, Hall 4.2 B19, Booth 1, has added a line of low-priced light stands to their extensive line of electronic studio flashes and other studio accessories. Combining the quality, appearance and workmanship of costly European light stands with Tokina's customary low prices, the company is especially rigid and strong and provides the sturdiness which you expect of light stands.

An Explosion of Digital Technologies Kodak and Ilford Announce Major Breakthroughs in Digital Print Permanence

by Henry Wilhelm

Note: This is the second of three articles on the many options now available for making prints from scanned and digitized photographic originals, digital cameras, and computer-generated images. The previous installment covered digital output on traditional photographic papers. The concluding article, which will appear in the Sept. 26-27 issue, will cover digital output with color copier/printers, large-format

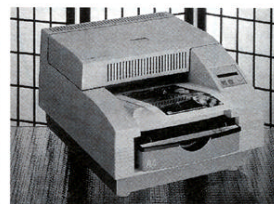
ink jet, electrostatic, and thermal-wax printers used for poster, display, and signage applications, and will describe the UltraStable and EverColor processes for making high-stability and high-quality pigment prints from digital files. In addition, we will discuss where all of these exciting new digital output technologies are headed, and how they fit into photolab and minilab markets.

photokina — Reflecting the stunning worldwide growth of digital imaging - which includes scanned photographic images edited with Adobe Photoshop and other computer programs, computer-generated art, large-format poster and billboard imaging, Photo CD pictures, images on CD-ROM's, medical imaging, digital camera images, prepress proofing, and a wide variety of other applications - visitors to Photokina this year will see a substantial increase in the number of digital output systems being offered. These new products are coming not only from the traditional photographic manufacturers like Kodak and Fuji, but increasingly from computer and electronics companies such as Iris Graphics, LaserMaster,

plied by Durst, HK, Metrum, Gretag, San Marco, Agfa, and Kodak were discussed in the last issue (Sept. 22-23). Although the output from digital photographic printers of course requires wet processing and drying, traditional color papers and translucent and transparent display materials can offer significant advantages in terms of high image quality, low materials costs, and fast printing speed. What system is best for a specific application can become a very complicated question, and, to satisfy the needs of a wide range of customers, more than one type of digital color printer likely will be required.

Thermal Dye Transfer Printers

Made by Kodak, Sony, Tektronix, Radius, Fargo, Nikon, Seiko, 3M, Shinko, and others, thermal dye transfer printers are presently by far the most common type of "photo-realistic" digital output device. These printers form color images by passing a color "donor" ribbon in tight contact with a special image receiving paper over a thermal print head which has tiny, individually-addressable heating elements that cause image dye to transfer from the dye ribbon to the print paper. The heating elements, which typically number 300 per inch (300 ppi) and run the full width of the print, can reach temperatures of above 200°C. The amount of dye transferred to any particular point in an image is a function of the temperature of the heating elements: in a continuous-tone fashion, the higher the temperature, the more dye is transferred. The cyan, magenta, and yellow dyes that make up the final color image are transferred in separate passes over the thermal print head.



Sony, Hewlett-Packard, Canon, Epson, Encad, Raster Graphics, Xerox, Tektronix, 3M, Summagraphics, Fargo Electronics, Radius, and others.

These new digital output devices form color images using a host of technologies with names like thermal dye transfer (often incorrectly called "dye sublimation", but more about that later); thermal development and transfer; liquid-toner electrostatic; high-resolution continuous-tone and other types of ink jet; thermal wax transfer; dry-toner electrophotography or xerography; and Thermo-Autochrome.

Image quality, maximum image size, color permanence, consumables costs, capital equipment expenses, and intended applications can differ greatly from one system to the next and all of this can become rather confusing to those of us who grew up with Dektol developer, Ilfochrome (formerly Cibachrome), and Process RA-4 compatible color negative papers.

To help give you a better understanding of current offerings in the digital output field, we offer the following guide (which continues in the Sept. 26-27 photokina news). But as you read these articles, keep in mind the newly-available digital printers that output on traditional color papers. These printers, sup-

Thermal dye transfer printers frequently are called "dye-sublimation" ("dye-sub") printers. This actually refers to a little-used imaging process in which dyes in a heated donor material vaporize (sublime) and then, passing through a small air gap maintained between the donor and the print sheet, condense into the print receiving layer to form the image. Some T-shirt printing systems work this way, but the high-quality digital printers we are discussing here do not. Properly speaking, these printers should be called thermal dye transfer printers, or "thermal-dye" printers for short ("thermal dye diffusion" is also acceptable but the word "thermal" by

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Digital Explosion

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itself is not quite sufficient, as this term could confuse the machines with inferior image quality thermal wax printers).

Since their introduction a few years ago, thermal dye transfer prints have exhibited a number of serious image stability shortcomings. These problems include: a) a high sensitivity to finger prints, especially if a person has used hand lotion or a moisturizing creme or soap (in a matter of only a few weeks, fingerprints can cause fading



in the areas where a print has been touched), b) severe fading and image irregularities caused by contact with plasticized PVC plastic such as that used with many notebook pages and photo pockets in wallets, c) transfer of image dye from one print to another when two prints are stored facing each other thereby ruining both prints (this can occur in as little as two days), and, d) transfer of image dye to 3M Post-It Notes and other sticky labels placed on a print, leaving a faded area where the labels were attached.

If carefully handled and stored, thermal dye prints can be quite stable, but when image deterioration does occur, it can be devastating. This writer has studied photographic permanence for many years and has rarely encountered image deterioration that can be so rapid and severe. In addition, most types of thermal dye prints have poor light fading stability when displayed.

Kodak's New Enhanced-Permanence XtraLife Thermal Dye Media

The Ektatherm XtraLife ribbon introduced by Kodak for use with its new XLS 8600 thermal printer is said by the company to have solved the problems described above. In a fourth printer pass following transfer of the cyan, magenta, and yellow image dyes, the XtraLife ribbon coats a thin, almost invisible clear laminate on the top of the print to protect the image from fingerprints, damage from plasticized PVC, and damage caused by water and other spills.

This writer's accelerated light fading tests have shown that prints made with the new XtraLife ribbon, as well as Kodak's other current Ektatherm ribbons, have much better light fading stability than any other thermal dye prints on the market. While the tests are continuing, the fading data now available indicate

that when displayed, prints made with XtraLife ribbons will outlast those made with current Ektacolor papers.

Taken together, these improvements are a major breakthrough in the permanence of thermal dye prints. For thermal dye prints that will be sold or otherwise find their way into the hands of the general public - or for that matter, any prints that may be kept for extended periods - this writer believes that XtraLife materials are the only currently available thermal dye products that should even be considered. (Other manufacturers of thermal dye print-

ers should take note: Kodak will supply XtraLife media on an OEM basis.)

The Kodak XLS 8600 printer, which costs about \$9,000 US, can produce 300 ppi images up to 8-1/2 x 10 inches when using XtraLife ribbons (consumables amount to about \$3.00 US. per print). A Post-Script version of the printer, the XLS 8600 PS, is also available. The printers are much faster than previous Kodak thermal dye printers, and can output an 8x10-inch print using XtraLife ribbons in less than 90 seconds (not including image processing time).

Kodak is supplying XLS 8600 printers with its new digital Copy-Print Station (about \$18,000 US), Digital Enhancement Station 100 (about \$40,000 US), and consumer-operated Creation Station (about \$69,000 US). These turnkey systems are being demonstrated at the Kodak stand in Halle 8.2.

Although there are many brands of thermal dye printers on the market, there are only a handful of companies that produce ribbons and print paper. Kodak and Sony both make their own dye ribbons, but most other manufacturers use ribbons manufactured by Dai Nippon Printing Co., Ltd. of Japan. For this reason, the image stability characteristics of prints made with these other brands of thermal dye printers tend to be similar. At present, none of them even come close to the permanence of prints made with Kodak's XtraLife thermal media.

Fujix Pictography 3000 Digital Printer

Employing a unique silver halide based imaging technology developed by Fuji, the Fujix Pictography 3000 digital printer produces very

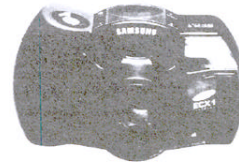
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Samsung ECX 1

photokina — The Samsung ECX 1 is equipped with a 38-140mm zoom lens for wide angle, portrait and telephoto subjects. The high speed f/3.9-f/10.5 high quality lens incorporates Samsung's traditional design excellence for brilliant colors and sharp reproductions. The lens also includes macro capabilities.

The camera is designed with maximum ergonomic comfort and user friendliness, with a design by F.A. Porsche. Full automation and advanced features include automatic film loading, advance and rewind, automatic exposure, and automatic film speed setting with DX-coded film cassettes. An extra-large LCD panel on the top deck alerts the photographer to every camera setting and "alert" condition.

An active infrared auto focus system measures in 96 zones for precisely focused photographs. For unsurpassed focus control, the ECX 1 features an all new full focus control system. This feature offers four distinct focus modes, including multi-beam focus where the camera's computer "average" the subject/scene: Single beam focusing for super-accuracy, snap focus when photographing difficult subjects such as active children or pets, and manual focus where the photographer sets the distance.



The landscape mode is an additional tool for taking pictures of distance subjects, even through a window.

To overcome virtually any lighting situation, the ECX 1 offers a multi-mode automatic flash system. When set to AUTO the built-in flash fires when the light is too dim for proper exposure. To overcome harsh sunlight a fill-in flash mode can be accessed. For deliberate dense and natural exposures the flash can be set "off." With red-eye reduction mode, pre-flash pulses are emitted which cause the pupils of the subjects' eye to contract, greatly reducing the "red-eye" effect.

The Samsung ECX 1 includes many other advanced features: Intelligent zooming mode including Fuzzy, portrait and step zooming; Versatile shooting mode including Continuous, Interval and Multi-exposure shooting. The ECX 1 also includes a switchable panorama feature for taking pictures with wide perspectives such as landscapes or group photos.

Omega D5500 Translator/Controller IV

photokina — Omega announces the development of the D5500 Translator/Controller IV for the Omega D5500 Automatic Dichroic Closed Loop System (CLS) enlarger. Developed for the corporate/industrial photo lab, the integrated D5500 Translator/Controller/Closed Loop Enlarging System enables operators to push through large quantities of work in half the time than with other enlarging systems.

The D5500 Translator/Controller IV can be used with any existing D5500 system, or it can be calibrated to work with other closed loop enlargers. No separate color transla-

tor is necessary with the new Translator/Controller IV, as it features VCNA inputs for Density RGB and YMD. The unit works without a probe, and has a built-in interface to attach a computer printer. It also features order memory and paper memory, a security code for data in memory, system diagnosis functions, and a timer mode for Y, M + Time or Y, M Density. Making the D5500 CLS lamphouse run twice as fast as the previous version of the translator/controller, the new D5500 Translator/Controller IV is an economical alternative to color analysis systems.

LumiQuest ProMax Kit

photokina — The new LumiQuest ProMax Accessory Kit allows users of the LumiQuest Pocket Bouncer and/or 80-20 to create a highly flexible system for use under a variety of different lighting situations. The ProMax Accessory Kit includes a

80-20, work with the automatic features of most strobes. While no exposure compensation is necessary, operating distances will be somewhat reduced.



white insert, gold and silver Metallic Inserts, and a frosted diffusion screen.

Components of the ProMax Accessory Kit attach in seconds to the LumiQuest Pocket Bouncer and/or 80-20 with Velcro; when affixed to the Pocket Bouncer or

EISA Trend Studio

photokina — There will be another premiere in the supporting program: the *EISA Trend Studio* in Hall 5, which is being organized by the European Imaging and Sound Association in cooperation with KölnMesse. EISA is an organization consisting of around 30 photo, video and audio magazines from 13 European countries. The Trend Studio not only provides an overview of new products and trends but also offers non-stop information and entertainment — from the press talk to workshops and product shows, plus panel discussions between experts.

Bretford AV Carts



photokina — Bretford's carries a complete line of AV carts that will make presentations a breeze. Each cart is designed from either sturdy steel or lightweight plastic and feature several designs to provide the most secure support for your valu-

able equipment. Bretford's Cabinet Carts are constructed from heavy-gauge steel, and feature a lower locking cabinet for secure storage of video supplies. Doors swing open on full light piano hinges and have recessed handles for easy access. Each cabinet includes 2 keys.

Safely moving large equipment is no problem with Bretford's wide-body carts. Recessed top shelves and lower shelves provide extra support for equipment. Bretford offers a pyramid design with or without lower locking cabinets. Strength and safety made the "BB" cart series a number one choice for the display and storage of AV equipment.

Bretford's adjustable carts adjust to multiple heights by simple resetting four screws. Open roomy shelves provide ample storage space. The top shelves are reinforced by arc-welding and come complete with a non-slip rubber mat that is standard on all models.

Cymbolic Sciences 4x5 Film Recorder

photokina — Cymbolic Sciences (CS) enters the fast growing 4x5-inch digital transparency market with the FIRE 450 Color Film Recorder. The high-resolution film recorder is targeted at commercial color labs, service bureaus, desktop publishers and the prepress industry.

The FIRE 450's maximum image size is 4x5 inches with a plot resolution of 1270 lines per inch (RES 50). A unique feature is the ability to plot "2-up" where two 4x5 images can be plotted next to each other on the same piece of film,

thereby increasing system throughput and operator productivity, and reducing film waste. The system's 16-point bi-cubic pixel interpolator allows low-resolution data files to be output as high-resolution digital transparencies.

A 4x5-inch image is plotted directly from the workstation's disk in 9 minutes. Pixel interpolation, color correction, density linearization and image transfer from the workstation's disk are all done in real-time, while the FIRE 450 is plotting, with no time penalties whatsoever.

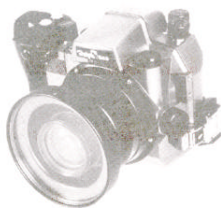
Underwater Housings For EOS Cameras

photokina—For the first time, marine photographers can take advantage of the EOS System with new underwater camera housings and dedicated flash units specifically designed for Canon's EOS line of SLR cameras. Manufactured by Kenko Delphinus Co., Ltd. to strict design specifications outlined by Canon, three new custom underwater housings allow photographers to use their existing underwater flash units in conjunction with autofocus capabilities — underwater.

The Canon EOS system is ideal for underwater photography due to its 16-bit super microcomputer that raises AF unit response speed, high-precision cross-type focusing sensor, control methods that achieve low reflectivity and low contrast, and Canon's proprietary Ultrasonic Motor lens drive system.

Designed specifically for the Canon EOS A2 and A2E, the CE-05 compact underwater housing was constructed with emphasis on its weight in the water, balance, size and ease-of-use. Corrosion-resistant aluminum alloy is used for the main body, making it possible for delicate high precision cameras such as the A2 and A2E to be used in heavy-duty environments. Even when scratched, the outer casing will not rust.

Although the housing is recommended for depths up to 75



meters/246 ft., independent tests have verified that it is waterproof to depths of up to 130 meters/427 ft.

Art Leather King-Size Products

photokina — The newest entry in Art Leather's king-size products is the 50.8x40.6cm (20x16 inches) Panorama Folio introduced at photokina. Already popular in the United States and United Kingdom is the giant-size 40.6x50.8cm (16x20 inches) Art Leather Vertical Album, which holds up to 15 inserts, or 30 photographs. The impressive display folio and supersize album are on display at the Art Leather photokina display—Hall 13.3, Stand A-11.

Both products are recognized as immediate "Show Stoppers" at bridal fairs, shopping mall displays, and in portrait studio sales areas.

Digital Explosion

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high quality continuous-tone prints with an image area up to 8.5 x 11.7 inches. The compact printer uses laser diodes to expose a silver halide sensitized donor paper. The donor paper is then moistened with a small amount of distilled water and rolled into contact with a sheet of image receiver paper. Heated to a moderate temperature, the silver halide image is developed and chromogenic dyes are formed, which then transfer to the receiver paper. The machine then peels off the donor paper (which is discarded) and the finished, full color print emerges from the printer.

The first print requires about 2 minutes from input to output; succeeding prints emerge about every



70 seconds. The printer costs about \$20,000 US and materials for each print come to about \$2.50 US.

The Pictography 3000 printer has developed a well-deserved reputation for the unsurpassed visual quality of its 400 ppi output (printing the full image area at maximum resolution requires a 48MB file). The prints are entirely free from the slight density irregularities which are frequently evident in thermal dye transfer prints. Such irregularities often manifest themselves as slight streaking in areas of uniform density such as skies or the seamless paper backgrounds often used with commercial illustrations and portraits.

In the high end of the commercial photography world, Pictography prints are increasingly being used

ropean Vogue that have been scanned directly from the Fuji prints.

Their truly excellent image quality notwithstanding, this writer's tests have shown that the light fading stability of Pictography 3000 prints is less than that of color negative papers - and of Kodak's XtraLife thermal dye transfer prints - and the prints are better suited for reproduction purposes than they are for extended display. The permanence of the Fuji prints is, however, much better than that of the typical (non-Kodak) thermal dye print. The Pictography 3000 digital printer and sample output can be seen at the Fuji stand in Halle 5.1.

Iris Ink Jet Printers and the New Ilford IfoJet Inks and Print Paper

Originally designed for direct digital graphic arts proofing applications, in the last several years Iris high-resolution ink jet printers have vaulted into prominence in the fine art photography world. For many, Iris prints have become the preferred form of photographic print! Employing a unique microscopic variable-size dot structure, the prints have an effective visual resolution of approximately 1,500 ppi. They have a beautiful, continuous-tone appearance.

Iris prints can be made with almost any paper (including heavy 100% cotton fiber watercolor papers), photographic-type paper and film supports, and even cloth. Iris printers, which range in price from about \$40,000 to \$130,000 US, can output images up to 34 x 46 inches. There is no other digital output device that can make prints of such high quality, in such large sizes, and with such a wide variety of papers and this is why Iris printers have such great appeal to fine art photographers. The ink and paper costs are very low compared with other high-quality digital imaging systems.

Iris prints can be found in many gallery exhibitions and were used by Vogue fashion photographer Arthur Elgort for his very well received show which opened this past April at the Staley-Wise Gallery in New York. The prints, which were made by New York City's new digital imaging lab, X(+C) Ltd. and are being sold for as much as \$7,000, com-



as final copy for reproduction in magazines. Without realizing it, in the last year or two you have almost certainly seen full-page cosmetic ads and editorial illustrations in fashion magazines such as Harpers Bazaar and both American and Eu-

ropean Vogue that have been scanned directly from the Fuji prints. The only drawbacks to Iris prints, in the view of most photographers

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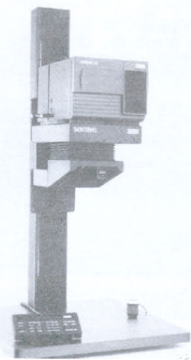
ZBE Sentinel Enlarger

photokina—The ZBE Sentinel Enlarger will accommodate all negative formats from 35mm to 4x5 in roll or cut sheet form. The autofocus/autosizing system allows for fast efficient setups particularly where accurate sizing is necessary. Once the required print size is entered the enlarger will move to the correct position giving an accurately sized and perfectly sharp image. Follow focus or zoom controls are incorporated and may be employed by the operator to adjust image size as required.

Many offsets are provided to accommodate different negative carriers and easels. The system is also provided with a number of user installed fast setups enabling the enlarger to quickly return to any preset standards. The Sentinel is provided with the Starlite 55 light source.

The Starlite 55 is a closed loop, controlled light source, specially designed to meet the needs of the busy photo lab. It is very fast; a massive 1080 Watts, fully stabilized internally to provide consistent results time-after-time. To control output we have designed an internal rotary shutter which allows accurate exposure control down to 1 second.

The Starlite 55 is preprogrammed for use with video color analyzers and packed with software features. Naturally, it is very easy to operate from the dedicated keypad. The head is also pre-programmed for black-and-white printing using variable contrast materials. The contrast range is divided into one tenth grades for fine control of the paper contrast.



Second Centre "Corporate Media"

photokina—An extensive range of information about audiovisual and multimedia solutions for decision-makers from industry and the corporate sector will be provided by Professional Media with its "Corporate Media" user centre in Hall 14.2. The centre, initiated by KölnMesse and Rolf G. Lehmann, the publisher and editor-in-chief of *MedienReport* magazine, will present a comprehensive program of lectures on about 60 themes from and for communication experts. Solutions will be presented from all areas of marketing communication, information, education, culture medicine and museums. The highlights of the program will include lectures by renowned media experts from the USA on the future prospects of television technology.

VIVITAR COMPACT AF ZOOM

photokina—Vivitar Corporation, a leading marketer of innovative photographic equipment, has introduced a moderately-priced, power-zoom camera that boasts more features at less cost than other auto-focus compacts.

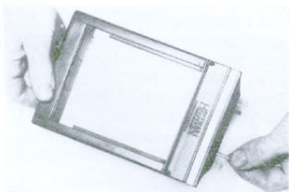
The new Vivitar Series 1 480PZ offers a sharp 38-70mm power zoom lens, an electronic self-timer, infinity lock, tripod socket and a sophisticated three-way sensor flash.

The affordable 480PZ utilizes a reliable, motorized film transport system that makes film loading as easy as opening the camera back, inserting the film cassette with the

leader extended and closing the back. The film is then wound automatically to the first frame as soon as the film door is closed, and is advanced automatically after each shot. Rewinding begins automatically at the end of the roll, and, for added convenience, the camera also features a mid-roll rewind switch.

The 480PZ's three-mode electronic flash incorporates a sophisticated zoom head to match light output to the focal length of the lens. The camera is available with an optional five-mode data back for imprinting time and date information on photographs.

Hoffman's New Holder



photokina—Hoffman Camera Corp., Farmingdale, New York, USA, manufacturer of photographic systems since 1953, is in Hall 14-2, Aisle F, Stand 50. They will have for inspection the new prototype 4x5" plastic cut film holder at quantity prices. This size holder will be avail-

able to the distributor or dealer who can purchase quantity.

The company makes their famous metal clad Metalmaster cut film holders — the very best in the world — in 4x5, 5x7, and 8x10 film sizes. These have no flaps to come off, and are patented. Virtually indestructible for the professional who wants the best. The company makes 4x5, 5x7, and 8x10 double sided glass plate holders and vacuum film holders in 4x5 to 20x24 in all film sizes. In addition, there is the Pin Register In-Camera masking vacuum film holder in 4x5 and 8x10 sizes for special effects photography.

Digital Explosion

(Continued from page 12)

and museum curators, is that the water-based inks generally used with the machines have poor light fading stability (although when stored in the dark, the permanence of the prints is excellent) and, unless treated with a waterproofing coating, are easily susceptible to water damage. Iris recently developed a special Fine Arts ink set with improved light fading stability, but photographers have clamored for inks with even better permanence

put together the new Printasia digital print making system aimed primarily at the minilab and small photolab market. It is a turnkey system which includes a newly-designed automatic sheet-fed Iris printer capable of making prints up to 14 x 21 inches, a flatbed scanner for input, a Power Macintosh with a color monitor, and specially designed software with an easy-to-use front end that can also directly access Adobe Photoshop image editing software for more complex work. The system can also accept a wide variety of digital image, page-layout, computer illustration files, and



and color reproduction characteristics.

This is where Ilford comes in. Ilford is now owned by the International Paper Company, which has made a considerable financial investment in the Scitex Corporation Ltd., which owns Iris. Ilford has for a couple of years also marketed Iris printers to the photographic trade. As part of a recently announced long-term strategic alliance with Israel-based Scitex, Ilford drew on its many years of research with dyes used in its Ilfochrome print materials (formerly called Cibachrome) to develop a new, high-stability ink set and companion print paper for Iris printers. Shown here at Photokina for the first time anywhere, Ilford says the new IlfoJet inks and paper are the first ink jet materials ever designed to meet the demands of photographic markets. When used with the new print paper which, according to Ilford, has the "look and feel" of traditional photographic paper, the inks become waterproof once they have dried.

Samples of the new IlfoJet materials were not available in time for this writer to be able to include light fading data in this article, but Ilford says the prints have light fading characteristics which are "similar" to that of most current color negative papers. The prints are assumed to be essentially permanent when stored in the dark. Ilford has indicated that it plans to make the new inks and print paper available to other manufacturers of ink jet printers on an OEM basis.

Ilford's New Printasia Digital Printing System for Minilabs and Small Photolabs

Utilizing the new IlfoJet inks and paper, Ilford, Iris, and Scitex have

Photo CD's brought in by customers.

The Printasia system, which will become available in June 1995 after extensive field trials, is expected to sell for about \$60,000 US. Options will include a film scanner and a larger printer that can make prints up to 21 x 28 inches. This is of course a daylight operating, pollution-free system. The materials costs are very low, with the ink and paper for an 8 x 10-inch print coming to about \$0.75 US. The printing time for an 14 x 21-inch print is about 6 minutes.



The Printasia software, which was developed by Scitex in consultation with Ilford, allows easy correction of "red-eye" and can quickly remove dust and scratches from images. The system can output both enlargements and package prints. Various digital templates are supplied which allow pictures to be easily dropped into birthday and other greeting cards, business cards, personalized large-format calendars, decorative frames, and the like. Lyne Moody, an imaging systems product manager for Ilford, says that the Printasia system offers the minilab "an easy entrance into digital imaging field with a focus on value-added services that will appeal to a wide range of consumer and business-oriented customers."