

Ultravision P-Link

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For more information regarding anything in this newsletter, please write to or contact any of the Executive Committee Members. We appreciate any comments, recommendations and contributions for the next issue. If you'd like to help or show your support in any other way, please let us know.

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We Have Moved!

Dear partners and friends,

From April 2001, we will be moving to our new office. The new office is 3 times the size of our present office space. We believe this new office will provide better support to all our business partners. Address below:

701, Sims Drive, #04-01A, LHK Building, Singapore 387 383

Our contact telephone and facsimile numbers remain unchanged.

Lee Wee Khiang
Managing Director

What's New

JAI COLOUR DIGITAL DOUBLE SPEED MEGAPIXEL PROGRESSIVE SCAN CAMERA (CV-M7)

CV-M7 incorporates a 2/3" colour CCD sensor, with Bayer pattern RGB primary mosaic filter. Additionally, it provides 1300x1030 pixel resolution and utilises proprietary sample/hold and correlated double sampling (CDS) techniques to achieve double-speed readout without sacrificing image fidelity.

Features:

- 2/3" Colour Hyper HAD IT CCD sensor
- RGB primary mosaic filter (Bayer)
- Host based colour decoding
- Resolution: 1300x1030 pixels
- 6.7um square pixel
- 8-bit digital video output, LVDS
- Full frame rate: 24f/s
- Shutter: 1/12 to 1/10,000sec selectable pattern
- Partial Scan available
- S/N: >57dB
- Size: 40x50x90mm (HxWxD)



.....continue on page 3.

Editor's Message

Hello! Hello! Hello! We have some new write up for you to read in this issue.

First and fore-most important message, Ultravision has moved to a new office. This office is still in the Aljunied vicinity. Therefore, still very conveniently located to welcome guests and visitors.

JAI has developed another advance camera, the *CV-M7*. This is a megapixel double speed colour camera that we believe future new applications require. High resolution, colour and speed are some of the key features. However, if the application does not need high resolution, then JAI can also offer their low-cost standard PAL or NTSC camera, *CV-S3200/3300*.

Recently, we had been appointed by *Spica* and *Coreco Imaging* as their distributor in Singapore and Malaysia. *Spica* is a company located in Hawaii specialising in Digital Real Time Motion Analysis system. Very useful for trouble-shooting applications. *Coreco Imaging* is a new company form through the merger of *Imaging Technologies* and *Coreco Inc.* With the merger, we have not only *III's* products, but also *Coreco's* products to offer to you.

Courtesy from some of our customers, we are able to introduce 2 interesting applications that used machine vision technology to provide solution. First, is the Car Park Automation application where machine vision technology is used in the automation of car park. Next, is the OCR of a disk media. Very tricky, but successfully completed by the integrator. Pictures are not printed for confidential reason.

Hope you will benefit from reading this issue. Sayonara! ■

Ultravision - The Machine Vision Specialist

Special Review

- The information below is available with courtesy from our customers. This review is to keep our partners and friends informed of out-of-the-box machine vision's applications. Pictures are not printed for confidential reason.

INTERESTING APPLICATION

1) CAR PARK AUTOMATION

Machine vision system technology is no longer confine to being use in factory automation. Now integrator has transfer this technology for car park automation application.

Cameras are position to recognise the car licence plate number and then open the private car-park barrier for the car to enter or leave.

For public car-park, the date and time is recorded in the computer together with the car licence plate number. When the car is ready to leave the car park, at the exit barrier, another camera is used to image the car licence plate number and then calculate the parking charges. The payment can be made either with a cash or cash-card at the exit barrier location.

Components supplied by Ultravision:

- *Direct Perception* Pan-Tilt system
- *Coreco Imaging's Sherlock* software with frame grabber
- *JAI*B&W camera ■

2) OCR INSPECTION ON DISK MEDIA

One of our integrator has successfully completed an OCR application on disk media for their customer.

According to our customer, the application is to image and recognise the character that is laser mark on a disk media. The marking has a FOV of 10 x 8mm. The speed of the machine is 2.8sec/cycle for vision and handling.

Components supplied by Ultravision:

- *Xcaliper* software, *Mutech* frame grabber with Pentium III PC system
- *JAI* remote-head camera with customised lens
- LED lighting ■

.....from page 1.

What's New... (continue)

MVTEC SOFTWARE (ACTIVISIONTOOLS)

The *ActivVisionTools* is a family of tools enabling you to develop powerful machine vision applications quickly and easily without writing a single line of



code. The tools are based on *MVTec's HALCON* library and thus inherit its speed, robustness, and accuracy. However, the tools hide the complexity of image processing from the user; instead, they present solutions for standard tasks such as measuring objects, reading bar codes, or blob analysis. The user can adapt these solutions easily to his or her specific problem via graphical user interfaces.

ActivVisionTools provide all system integrators, OEMs, and end-users with a fast track to machine vision solutions.

ActivVisionTools is integrated into the framework of Microsoft Visual Basic. The communication between the tools is

set up and configured automatically by the tools themselves. No programming is needed to connect to a frame grabber, the user just selects frame grabber and grabbing mode. Thus, *ActivVisionTools* lives up to its name and assist the user actively in the development of machine vision applications.

On top of enabling the user to develop machine vision applications completely without programming, *ActivVisionTools* also offer flexibility and extensibility. On the one hand, *MVTec* will continuously develop new tools based on the extensive functionality of *HALCON*. On the other hand, the users themselves can easily integrate their own VisualBasic/ActiveX components.

Thus, *ActivVisionTools* provide all system integrators, OEMs, and end-users with a fast track to machine vision solutions.

JAI DSP COLOUR CCD CAMERA (CV-S3200/3300)

If you are looking for a colour camera to enhance the differentiation of the image quality at a reasonable price, *JAI* has the camera for you.

CV-S3200/3300 is produced with low cost high quality DSP colour CCD sensor to capture colour image.



Features:

- 1/2" or 1/3" HAD CCD sensor
- PAL: 752(h)x582(v) pixels
NTSC: 768(h)x494(v) pixels
- S/N: >50dB (AGC off, Gamma 1.0)
- Sensitivity on sensor 0.09lux (AGC on, 50% video, 2856K)
- VBS & Y/C video output
- Digital Signal Processing (DSP)
- Extended sensitivity with intergration for low light application.
- Automatic shift from shutter to integration for wider light range
- Output for video control and direct drive iris.
- On-screen menu control with push buttons on rear.
- Horizontal scan reversal. (mirror image)

CV-S3200/3300 is

produced with low cost

high quality DSP colour

CCD sensor to capture

colour image.

- Back light compensation with selectable patterns.
- RS232C interface/Win95/98/NT setup software.
- Size: 45(H)x55(W)x110.2(D)mm
- Weight: 350gm

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What's New... (continue)

SPICA 3D DIGITAL MOTION ANALYSIS SYSTEM (DMAS)

DMAS 3D Digital Motion Analysis System, employ the latest technologies in internet imaging administration and support, with Real Time, Automatic or Manual tracking algorithms.



Features:

- Simplicity, ergonomically designed for non-technical people. Plug and play.
- Minimal hardware required, computers and cameras only. No VCRs necessary.
- Support over the internet. They can troubleshoot or upgrade your system over the Internet.
- Internet Chat. Share and discuss your data with your colleagues over the web.
- 1024x1024 digital cameras at 40 frames per second as standard camera.

- Continuous high speed 3D real time motion analysis from 30 to 955 frames per second.
- Unlimited number of cameras and analog data channels
- Real time coordinate capture and kinematics calculations without any proprietary hardware.
- Dynamic calibration with wand or with user defined calibration object.
- Real time recording of uncompressed digital video to hard-disk array at 100MB/s per camera. ■

CORECO IMAGING

Coreco Inc. and Imaging Technologies have merged to form the largest supplier of machine vision's hardware and software products.

As a single company with the combine products ranges, the company is now known as *Coreco Imaging*.



Ultravision is proud to be appointed the distributor for the full range of *Coreco Imaging's* products. ■

Coreco Inc. and Imaging

Technologies have

merged to form the

largest supplier of

machine vision's

hardware and software

products.

Products:

- *PC-XXX* range frame grabber
- *IC-XXX* range frame grabber
- *Bandit* series frame grabber
- *Viper* series frame grabber
- *Cobra* series frame grabber
- *Python* series frame grabber
- *TCI* series frame grabber
- *Sherlock & MVTools* software development kit
- *Sapera* software development kit
- *WIT* software development kit

For more specification of the products, please visit <http://www.coreco.com>. ■

Ultravision Product Range

<u>Lens</u>	<u>Camera</u>	<u>Lighting</u>	<u>Frame Grabber</u>	<u>Analysis Software</u>	<u>Pan-Tilt</u>
- Optem / US	- Dalsa / Canada	- Illumination	- Epix / US	- IO Industry / Canada	Directed
- Avernia / Japan	- JAI / Denmark	Technologies / US	- Bitflow / US	- Optimas / US	Perception / US
	- Pulnix / US		- Coreco Imaging / US	- XCaliper / US	
			- Mutech / US	- Halcon / Germany	
			- Imagenation / US	- Sherlock / US	
				- Spica / US	

Note : If you need more information on Ultravision's products, please call us or visit our homepage at www.ultravision.com.sg.