



## REPORT FROM THE EXECUTIVE DIRECTOR

2005 has been a year of significant accomplishments for the 1394TA, along with some very positive initiatives that promise to make 2006 an exciting year.

Last spring, we traveled to the Federal Communications Commission in D.C. to promote the benefits of 1394 in the Set Top Box. Eric Anderson and James Snider (accompanied by Attorney, Bob Schwartz) visited the Office of Engineering and Technology, the Media Bureau, and the offices of Commissioners Adelstein and Copp. We found the FCC to be interested in our comments and encouraged follow up meetings in the future.

We visited many of the major cable MSOs including Comcast, Time-Warner, Cablevision and Cox, during the summer to promote the benefits of 1394. With 1394 showing up in more STBs, we wanted to give the cable operators some insight into the advantages 1394 offers them in reducing their costs, increasing the quality of their product offering, and delivering advantages to their customers. James Snider was joined by Hans van der Ven and Dave Thompson on a number of these visits.

The meetings with the cable MSOs uncovered a number of areas where improvements can be made to 1394 implementations to optimize it for the cable TV industry. Hans van der Ven chaired two new task groups to address these areas: 1394 over Coax and the User Interface Task Groups. The latter group addresses how to use 1394 for sending the user interface generated in STBs to the HDTV. Good progress has been made in both of these areas, with demonstrations expected in multiple locations at CES in January.

Samsung sponsored the international meeting this past April in Seoul where they demonstrated their vision for 1394 in their Extended Home Theater (XHT) initiative. This is based on the CEA 2027a standard, which is gaining a lot of momentum in the market.

## BoD Elections Set for Jan. 26 in Hawaii During Q1 2006 Meeting

A new 1394 TA board of directors will be elected by the membership at the January TA meeting in Hawaii. All nominations are due by January 12, and while nominees need not be present to be elected, it is strongly encouraged (see below). The election will be held after lunch on Thursday, January 26th.

Any TA member may run for a seat on the board. Self-nominations are accepted along with nominations for any other member. No second is required, though in the past they have been common. Multiple people from a single member company may be nominated, but at most one of them can win a seat on the board.

All board seats are open for this election. The winners will then elect officers among themselves. Nominees should plan to attend the entire duration of the January TA meeting so all new board members can attend the first meeting of the new board, which will be held after the election on

In September, the 1394TA co-sponsored a 1394 plugfest in Milpitas with CEA. This ushered in a new relationship with CEA to move forward with interoperability of 1394- enabled AV products. In conjunction with this, the 1394TA published a Design Guide, which discusses the most common 1394 interoperability issues, with advice on avoiding them. This is available to everyone on the 1394TA home page.

Also, the 1394TA completed work on a 1394 Training Video for "Cable TV Call Center" training. This general-purpose overview of 1394 and the advantages of 1394 to the customer, is useful for a variety of audiences. Free copies of this video will be available in 2006 for member companies. Check the TA home page for a preview of this video and information on how to acquire a copy at no charge.

And finally, looking forward to 2006, the 1394TA will establish a liaison relationship with the HD A/V Networking Alliance (HANA). We will be participating in the HANA Lounge at CES (Rooms N223 – N225). This relationship will increase our effectiveness in promoting the benefits of 1394 for connecting HD devices in the home. Please come by and see us at CES.

Best Wishes for all your 1394 endeavors in 2006!

James Snider  
Executive Director

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January 26th. All board members will be elected for one-year terms. Board members are expected to attend all quarterly meetings in person (including the April meeting in Germany), and about seven monthly conference calls between quarterly meetings in 2006.

## The current Board of Directors includes:

Eric Anderson (Chair)	Declan O'Mahoney
Max Bassler (Vice Chair)	Jalil Oraee (Financial Officer)
Peter Johansson	Jong-Wook Park
(Chief Technology Officer and Editor)	Michael Scholles
Sam Liu	Dave Thompson (Secretary)

Send nominations to the TA general reflector, 1394-sig@1394TA.org. Nominations may be made until January 12, 2006 (two weeks prior to the election). Nominations received after January 12, 2006 (USA Eastern time zone) will be discarded. A list of nominees will be posted before and after this deadline. Please complete nominations promptly. This deadline will not

be extended under any circumstances. All nominations will be confirmed by reply email from the Secretary. Write-in candidates are not allowed.

Nominations must clearly state the name of the nominee along with a concise statement of qualification - minimum 100 words - focused on why the nominee is qualified to serve on the board, and listing relevant experience and past contributions to the 1394 TA along with any planned/desired role and initiatives the nominee would pursue.

Those making nominations are encouraged to focus on the past and potential contributions of the nominated individual, rather than those of their employer. Persons serving on the Board are legally bound to serve in the interest of the 1394 TA, rather than in the interest of their own employer.

Please send nominations to [1394-sig@1394TA.org](mailto:1394-sig@1394TA.org). Please note that nominators must subscribe to this reflector in order to post to it, so make nominations early in case of email difficulties.

Questions about the election process can be sending to Dave Thompson, BoD secretary, at [davethompson@agere.com](mailto:davethompson@agere.com).

## 1394 TA to Exhibit with Newly-Formed HDTV Alliance at ICES 2006

The Trade Association will co-locate with the new The High-Definition Audio-Video Network Alliance (HANA) at the upcoming International CES 2006, scheduled for Jan. 5-8 in Las Vegas.

The TA and HANA will be in room N223-N225 of the Las Vegas Convention Center. The co-location provides the Trade Association with a cost-effective, high-visibility exhibit space that is convenient for all attendees, said James Snider, executive director.

HANA, which will support the use of 1394 in its standards development efforts, officially debuted in New York City on Wednesday Dec. 14 with a news conference at Rockefeller Center. Among the group's members are cable operator Charter Communications, chip designers ARM and Freescale, Mitsubishi Electric, Sun Microsystems, Samsung and NBC. HANA will establish standards and certification procedures to ensure that hardware, software and content for high-definition movies, TV and audio will be compatible with each other.

The first HANA-certified products will come out in the first half of 2006. Rather than concoct a completely new collection of standards, HANA will leverage existing ones including IEEE 1394. A "HANA-certified" sticker on a piece of hardware will mean that piece of equipment complies with a series of standards, according to Bob King, a technology liaison from Vulcan Ventures. King served as a primary spokesman at the Dec. 14 news event, predicting that by the year 2010, some 63 percent of the U.S. population will have a high definition TV.

For more information about ICES 2006 visit [www.cesweb.org](http://www.cesweb.org), and for more details about HANA visit [www.hanalliance.com/](http://www.hanalliance.com/)

## 1394-Equipped Cameras for Machine Vision Applications Highlight Annual Vision Show in Stuttgart

A new set of 1394b-equipped industrial cameras from leading global vendors were highlighted at the 2005 VISION Show in Stuttgart, Germany in November.



Sony had two models of 1394b cameras for the VISION 2005 exhibition. One is color and another one is mono.

VISION 2005, which was attended by board members Michael Scholles and Sam Liu, featured the latest systems for various industrial applications. Machine vision applications represent a growing niche market for the IEEE 1394 audio-video standard, due to the significant performance premium 1394 offers over Ethernet.

"1394 is now everywhere in this important, growing market," said James Snider, executive director of the Trade Association. "An overwhelming majority of camera manufacturers now are providing 1394-equipped products, and they are penetrating several important applications."

Several multinational leaders exhibited cameras featuring the most advanced version of the standard, 1394b, which provides bandwidth up to 800 Megabits/second. Among them were Sony Corporation, which featured color and mono versions; Toshiba Teli; and Hamamatsu. Also, smaller technologically advanced companies such as Point Grey Research, Basler Vision Components and Allied Vision Technologies also are now delivering 1394b cameras.

At VISION 2005, Fraunhofer-IPMS demonstrated a 1394b camera development platform based on Texas Instruments' DSP and an OHCI Link Layer Controller. It delivers images with a spatial resolution of 1312 x 1032 pixels at a 15

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The Newnex booth featured 1394b optical repeaters working with the new 1394b cameras from industry leaders.



Hz frame rate, limited by the CMOS image sensor. A high level protocol IIDC is implemented, and by integrating a TI DSP in the system, basic image processing functions can be carried out inside the camera.

1394TA member signs on the show floor were distributed to Sony, Pleora, Hitachi, Toshiba, Point Grey, Fraunhofer IPMS, and Newnex Corp.

In a booth hosted by Newnex, a Point Grey 1394b camera was connected through a pair of 1394b optical repeaters. In another demonstration, Newnex 1394-over-CAT5 repeaters connected a Sony 1394b camera to an Apple Mac.

Expected market growth for the near future is strong; in 2006, a total of 100,000 1394b-equipped cameras will ship, growing to 160,000 units in 2007, and 280,000 cameras in 2008.

VISION has expanded quickly since its inception, with over a third of visitors traveling from outside Germany. Some 41 countries were represented from such diverse countries as Australia, Canada, USA, Russia, China and Japan. Attendance is growing by more than 10 percent a year.

## FireWire Maximizes Performance in Notebook Computer, Storage Connectivity; Fast Growth of 1394b Designs Expected In 2006

The 1394 standard achieved record design-ins throughout the global PC and storage peripherals markets in 2005, and design-ins for the 1394b (FireWire800) version will grow significantly in the PC and storage sectors during 2006.

According to 1394TA Executive Director James Snider, 1394b is being used in a new series of new external hard drives and in PC motherboards announced by industry leaders worldwide.

“The expanding design activity reflects FireWire’s versatility as a multi-purpose technology,” he said. “One of its major benefits is that it can be used for many purposes, and competes so well with single purpose interface technologies such as serial ATA.”

Currently, 1394a/FireWire400 is designed into more than 65 percent of notebooks. Estimates for 2006 reach approximately 72 percent. By the end of 2006, a total of more than 48 million 1394-equipped notebooks will have shipped, including more than 3 million with 1394b’s 800 Megabit/second speeds. Some 11 million consumer desktop PCs will also include FireWire connection capabilities.

Most PC motherboards now provide FireWire400, and new motherboards equipped with 1394b have been announced by Intel, Gigabyte, Asustek and Foxconn during this year, and leading makers of external drive and storage products are now using 1394b as a differentiator.

A recent series of reviews covering new computer peripherals demonstrates FireWire’s superiority for applications requiring fast, reliable, high bandwidth audio and video transport.

The new Western Digital WD3200JB 320 GB UltraATA hard drive, with interfaces for both USB 2.0 and 1394b, illustrates the performance advantage.

According to the October review carried by Tom’s Hardware, “Firewire proves to be the clearly more efficient protocol, as it hits a transfer rate of almost 40 MB/s reading and 28 MB/s writing, while the USB 2.0 interface stays below 32 MB/s reading and 29 MB/s writing.” The review can be accessed at:

[http://www.tomshardware.com/storage/20051014/western\\_digital\\_goes\\_flashy\\_with\\_lighted\\_hard\\_drive-01.html](http://www.tomshardware.com/storage/20051014/western_digital_goes_flashy_with_lighted_hard_drive-01.html)

There is currently a strong demand for complex Peripheral Bridge devices, and the high-end devices that typically provide large disk, encryption and RAID all include 1394b, which is seen as an ideal solution for improving HDD performance. While USB 2.0 demonstrates some tendency to create system bottlenecks, 1394b delivers the bandwidth to meet the maximum HDD performance and work around the challenge, Snider said.

All of the leading storage suppliers in 2005 introduced new drives that incorporate 1394b, with its transfer speeds of up to 800 Megabits/second. These include Western Digital’s WD3200JD, Maxtor’s OneTouch FireWire 800 edition; Seagate’s combination drives, and drives from Iomega, Lacie, and GTech. “The FireWire 800 connection is the performance pacesetter among all other interfaces includes on these multi-interface storage products,” Snider said.

Unlike other data transfer standards such as USB 2.0, PCI-External or external Serial ATA (eSATA), 1394b features multiple-source, real-time delivery with no ‘drops’ or misdeliveries under fully-loaded conditions. It also offers full networking capability using a peer-to-peer architecture in place of slower-moving master-slave configurations that require central processor intervention and additional overhead during each transaction.

## EVENTS OF INTEREST:

### January 2006

- Consumer Electronics Show  
January 5 – 8, 2006  
Las Vegas Convention Center  
Las Vegas, Nevada

- 1394 TA 1st Quarterly Meeting  
January 23 – 26  
Waikoloa Beach Resort  
Kona, Hawaii

### March 2006

- Electronic House Expo (EHX) Spring  
March 28 – April 1  
Orange County Convention Center  
Orlando, Florida