Beyond

No. 1, Issue 1.

P2

THE P2 SERIES DEBUTS: NAB2004 BRINGS UNVEILING OF GROUND BREAKING NEWS GATHERING SYSTEM

Get Ready to Go

Beyond

When the Panasonic P2 concept was first announced at NAB2003, it generated a major buzz in the broadcast industry and garnered a number of awards.

Behind all the excitement was P2's ground-breaking approach of using solid-state memory rather than tape or discs. This fueled rising expectations that P2, with its superior reliability and speed, would revolutionize the news gathering and production workflow.

Now the wait is over. P2 makes its heralded debut at NAB2004, and visitors can see for themselves whether all the excitement and accolades were deserved.

Panasonic is rolling out two new P2 decks and a new P2 drive. The AJ-SDX800 camera/recorder and AJ-SPD850 recorder can record and play in both DVCPRO50 and DVCPRO. The AJ-PCD10 P2 card drive makes it easy to download files to a PC. All three products are being displayed and demonstrated at the Panasonic booth.

You'll find a lot of information about P2 inside this magazine. Pages 4 to 7 include comments from news professionals and broadcasters around the world, many of whom already have plans to introduce P2. On pages 8 and 9 you can learn about the efficient new workflow P2 makes possible.

On pages 10 and 11 you can read comments from companies that partnered with Panasonic in developing P2. These companies — Avid, Dayang, Thomson, Pinnacle, and Quantel — are global suppliers of nonlinear editing systems and network servers and offer products that handle P2 source materials seamlessly. System demonstrations of this smooth interoperability will be one of the highlight attractions at NAB2004.

Along with its P2 products, Panasonic is launching a new worldwide customer support concept. Turn to pages 12 and 13 to learn how P2 Support will use IT to help companies lower costs and boost speed in their news gathering and production operations.

NAB2004 is under way and the P2 era is here. Get yourself to the Panasonic booth — and get ready to go beyond.

Mr. Steve Paulus
NY1 News Senior Vice President
and General Manager

"AT NY1, WE SEE P2 AS THE CRITICAL FIRST STEP TO MAKING OUR NEWSROOM THE NEWSROOM OF THE FUTURE."
NY1, USA, DVCPRO P2 Purchaser

"In 1996, NY1 News was one of the first television stations to convert to the DVCPRO format. Since that time, NY1 has changed its operating system from a tape-based to a non-linear server-based platform. Although our newsroom operation has become a model of efficiency we still encounter bottlenecks at a crucial point, ingesting material into our server. As efficient as we are, we are still ingesting DVCPRO tapes at real time into our server.

We have been anxiously awaiting the time when that real time ingest can be transformed into a file transfer at much higher rates. With P2, we feel that the time is ripe for that transformation. We will soon be able to drag and drop video and audio files from flash memory cards into our operating system. We'll be doing this after first selecting the video we want to transfer in the camera through video key frames.

In essence, an NY1 video journalist will walk in the door and hand the memory cards to a media editor who will drag and drop the selected media onto our server. Almost immediately, it will be accessed by writers, the producer and the reporter, who will begin editing on the desktop. We will be able to cut our turnaround time in half (or even better).

In analyzing the cost factor of P2, while the memory cards are expensive today, their price will go down. At the same time, the savings we will realize in tape costs as well as in camera maintenance (no moving parts), will more than offset the new expense.

NY1 has always been eager to take the first steps needed to be the newsroom of the future. With P2 we are confident in taking those steps."
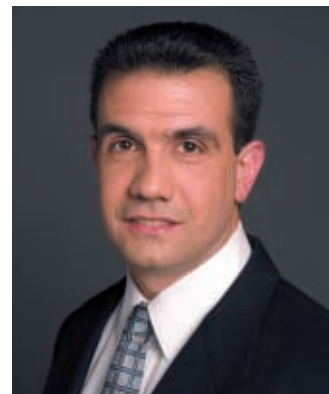
Steve Paulus

"In 1995, behind a black curtain at the National Association of Broadcasting convention, Panasonic pulled some NY1 people over and showed a few product concepts which represented Panasonic's new tape acquisition format called DVCPRO. A convincing argument about the new product line and operational benefits of DVCPRO sold NY1, and a relationship was born between the two organizations, which culminated in 1996 with NY1 becoming the first news station in the country to completely switch acquisition formats and take a chance on DVCPRO. The benefits and success of DVCPRO are still evident today and Panasonic has a share of its ENG products in every major market in the country.

Eight years later at the same venue, in a board room at the Panasonic booth at NAB, Panasonic put together an impressive demonstration highlighting a revolutionary new product line called P2. Using a PC card, Panasonic has developed a technology along with Solid State to record video files on a PC card and, using P2 drives, the AJ-SPX800 Camcorder, or the full blown AJ-SPD850 P2 record/player deck, you could take the recorded files and either play them baseband or FTP them into your server.

Panasonic is also showcasing the ease with which you could use P2 in the field to shoot, and edit a package. On remote shoots, you would traditionally go in the field with a camera, a bag full of accessories and a portable editing system; however, with P2 all you need is a camera and an editing laptop computer equipped with a compatible editing platform.

Once you shoot the piece, you have many options with P2. You could use the camera as a hard drive connecting to the laptop by USB 2.0 and edit the files right from the five 4GB cards or you could simply transfer the files to a portable hard drive and send the camera right back into the field and re-purpose the cards for a different story. This concept is a very attractive option for NY1 because we frequently send reporters on extended trips to file a series of reports. Instead of bringing a box of videotapes, the reporter could go out with a camera, laptop, external drive and the 5 PC cards that are assigned to the camera. After they shoot a piece they could transfer all of the

Joe Truncale
NY1 Director of Engineering

material to the external drive and reuse the cards immediately. Conceivably, all of the pieces could be shot and transferred to the external drive and then edited in the comfort of a hotel room or in a car on the way to a feed point.

The revolutionary vision of this product line was very attractive to us and, using a server based system like we do, we feel the migration to P2 in a server-based environment like ours is a no brainer.

Thinking of the workflow model we will create with P2, we are firmly convinced we will have the most technologically efficient system imaginable. We feel that our workflow model incorporating P2 could become the normal operating procedure and set the standard for television news organizations worldwide.

A quick summary of our model using P2 will be as follows:

A reporter comes back from the field with his camera and 5 cards. He takes the camera to our ingest facility where a technician takes the cards, inserts them into a P2 drive or record deck and, using a development from Pinnacle based on their Liquid platform, takes the files from the cards and FTP's them to our main server into specific clip id's at 4-10x real time.

This is the key and most attractive part of using P2.

Having the ability to take the cards and ingest the media significantly faster than real time is the goal of any news

"WE ARE REALLY EXCITED ABOUT THE CONVERSION TO P2."

organization with a mandate to get accurate news material on the air as quickly as possible. Having the ability to FTP files to our main server and have them accessible anywhere and to anyone in our facility is an incredible concept for us and it will only create an atmosphere of efficiency as we move forward.

Another added bonus with P2 is that the AJ-SPD850 player/recorder can have a DVD drive and part of our workflow model will be taking the material on the cards and burning it to DVD and creating a DVD database including all of the material we shoot. This is very efficient and a cheap solution to creating an archive of all of the material we shoot on a daily basis. The big dilemma in our present system is that our archive has a finite amount of storage and to complement it with a DVD database is a viable solution.

In summary, the ability to FTP files to our main server and the field editing capabilities make this a very attractive format for us and we are very excited to be the first organization in the world to push Panasonic's P2 format to the limits.

We are very excited about the conversion to P2 and are looking forward to pushing the technology to create a newsroom system like no other in the world."

Joe Truncale

"The new P2 technology from Panasonic represents a breakthrough in newsgathering. In historic terms, I think it is right up there with the transition from film cameras to electronic cameras and video tape.

The ability to move content directly from a standard computer PC card into our AVID newscutters without going through a proprietary player/recorder is amazing!

No one else can do that. Since our News Central platform is IT based, and heavily nonlinear, the resulting workflow advantages are a perfect fit for Sinclair.

One big difference is that video tape is a consumable and the P2 Cards are capital. Tape has a limited number of record cycles, so our yearly tape budget is significant.

We need to reduce our operating costs, and since P2 memory cards have a huge number of read/write cycles over

SBG
SINCLAIR BROADCAST GROUP

Mr. Del Parks
Vice President of Engineering
and Operations
Sinclair Broadcast Group

a much longer period of time, they will result in a large savings.

The camera features are also important. The clip marker and fire wire connection are just a couple of the features that will make this newsgathering system the system of choice."

"P2 REPRESENTS A BREAKTHROUGH IN NEWSGATHERING."
Sinclair Broadcast Group, USA

"A COLLABORATION FOCUSED TOWARD THE 2008 OLYMPICS"

China Central Television

China Central Television (CCTV), Matsushita Electric and Dayang Technology Development Collaborate on TV Broadcast Production System Development Incorporating P2 Solid State Memory Technology

China Central Television (CCTV), the largest broadcasting station in China, Matsushita Electric Industrial Co., Ltd. (MEI), best known for its Panasonic brand of consumer electronics and digital broadcast products, and Dayang Technology Development Inc. (Dayang), the leading manufacturer of professional broadcasting equipment in China, have announced that the three organizations have agreed to collaborate on the development of a TV broadcast production system based on Panasonic's DVCPRO Professional Plug-in (P2) solid-state memory card technology. The production system will be developed with MEI's solid state memory technology and Dayang's non-linear network technology to integrate news gathering, editing, content delivery and archiving work processes for the news and documentary programs of CCTV's "Economy Channel".

As a part of its preparations for the 2008 Beijing Olympics and the relocation of its premises, CCTV plans to innovate the production workflow, expand the overall network production model, and improve the media asset management

system. The agreement will provide the P2 related technology and expertise of MEI and Dayang that are required to meet CCTV's demands, with optimum engineering concepts and operations. At the same time, MEI and Dayang will also promote the R&D of the P2-based production system to provide an integrated solution for TV broadcasting production workflows most suited to the latest market needs in China.

The development of CCTV's "Economy Channel" content production system will begin initially by the R&D of products and operating technology. Through their collaborative efforts, the three organizations will facilitate the drive towards the broadcasting of the 2008 Olympics.

"When Panasonic asked Raycom Media to join them in their efforts in the planning of what was to become the P2 line of products, we eagerly agreed.

Raycom Media has long felt that this effort was a natural progression in file-based video recording technology based in the tried DV compression scheme.

There are obvious advantages in the use of a solid state, non-linear, file-based recording medium which could provide both reliable, virtually maintenance free recording and playback.

This technology also delivers on the advantages of faster than real-time file transfer as well as immediate use in PC laptop editing when directly using the PC card-based P2 card. By basing this technology in the ubiquitous DV recording scheme, it also allows the broadcaster to use a whole host of relatively inexpensive, mature and reliable non-linear editors that range from cuts-only to full on-line.

Panasonic has insured a long and extensible future for this technology with the adoption of 50 and 100 Mbps recording capability for use in higher quality productions and eventual HD recording.

We are happy to play a small part in what we believe will be Panasonic's next success story."

Mr. David Folsom
Vice President of Technology,
Raycom Media Inc

"WE ARE HAPPY TO BE PLAYING A PART IN THE P2 SUCCESS STORY."

Raycom Media, USA

"Testing P2 at Athens Olympic Games"
Beijing TV Station, China

Ms.Lui Ping
Engineering Director
Beijing TV Station

Beijing TV Station, Panasonic and Dayang Jointly Develop P2 Application Network System for Beijing TV Station Sports Channel

"Located in the capital of China, Beijing TV Station is an influential TV media in China. With its business flourishing, it gives priority to the adoption of modern digital TV technology. During its digitization process, Beijing TV Station has had good cooperation with Panasonic. Currently, the news center of Beijing TV Station has introduced over 150 DVCPRO50 units, and the DVCPRO50 format has become the major format for news coverage at Beijing TV Station.

The network system of Dayang is also adopted in the network construction of Beijing TV Station.

According to the development plan of Beijing TV Station for this year, priorities will be given to upgrading digitization of ENG equipment and establishing a program storage system. Beijing TV Station is very interested in the solid state memory storage (P2) technology newly developed by Panasonic and the network advantages of Dayang.

Beijing TV Station would like to take this opportunity to cooperate with Panasonic and Dayang to establish a new program production system combining P2 technology and network technology mainly for the Beijing TV Station Sports Channel so as to raise its program production efficiency. At the same time, Panasonic and Dayang will also gain some knowledge of the demands of Chinese TV station clients through the establishment of the system and be able to develop more P2 solutions that better suit the Chinese market.

The 2008 Beijing Olympics will provide total transmission of high definition TV signals. Beijing is the hosting city of the 2008 Beijing Olympics and in considering the construction of the new TV Station Building, Beijing TV Station is well aware of the advantages of P2 in high definition applications, and hopes to seek a way leading to a successful transition from the current standard definition to high definition in the future.

Beijing TV Station hopes to try out P2 products in its reporting of the Athens Olympics this year so that Beijing TV Station Sports Channel can better understand P2 through actual coverage of the event."

"The arrival of Panasonic's new P2 solid solid state memory technology based on SD's small cards, means a step ahead in the inevitable substitution of ENG cameras that use tapes, by cameras with devices that use digital recording technology. A few years ago, something like this would have been difficult to imagine.

The potential benefits of this new technology are clear: on the one hand the complete elimination of transport mechanical devices (less power consumption, weight reductions, low failure probability and, as a consequence, greater reliability and an important reduction in maintenance costs), and on the other hand the integration of the new devices (cameras and "decks") with IT technology, making information exchange easier: making it easy, fast and safe.

Although solid state memory card prices are still high, a spectacular reduction of them is foreseeable in the short and mid-term, like what has happened with other IT products

Mr. Angel Pacho
Sogecable Sub director of
engineering and maintenance

"The future is now."
Sogecable, Spain

(hard disks). On the other hand, its reusability is infinitely greater than traditional tapes.

Sogecable, aware of the benefits and advantages that this change can provide to broadcasters, has participated with Panasonic, making all kinds of technical and operational tests on the equipment, and contributing their views as a potential user."

Bringing Greater Reliability to News Acquisition: The P2 card

The P2 card far surpasses videotape and discs in reliability. It withstands shock up to 1,500 G and vibration up to 15 G, operates in temperatures from –4 to 140°F (–20 to 60°C), and can be stored in temperatures from –40 to 176°F (–40 to 80°C). The P2 lets you work in the harshest news gathering environments in the world. And a card can be rewritten up to 100,000 times, with no degradation and no drop-outs. With the P2 card's compactness and rewritability, you don't have to carry as much gear to acquire the news. This means greater mobility in the field, with less equipment and a smaller crew.

Unique Features for News Gathering: The P2 Cam

Unlike a VTR, the P2 camera-recorder has no mechanism. That means it doesn't take time to unload/upload the cards, and it provides reliable recording even when subjected to vibration and shock. This,plus the P2 cam's rugged and well-balanced body – it weighs approximately 8.8 lb (4 kg) – gives you outstanding mobility. The P2 cam also offers unique functions that are only possible with the memory card. It has five P2 card slots and allows seamless, continuous recording over all five. And its hot swap function lets you replace any card except the one being recorded on the fly, giving you outstanding data capacity and non-stop recoding. Proxy data recording and wireless LAN
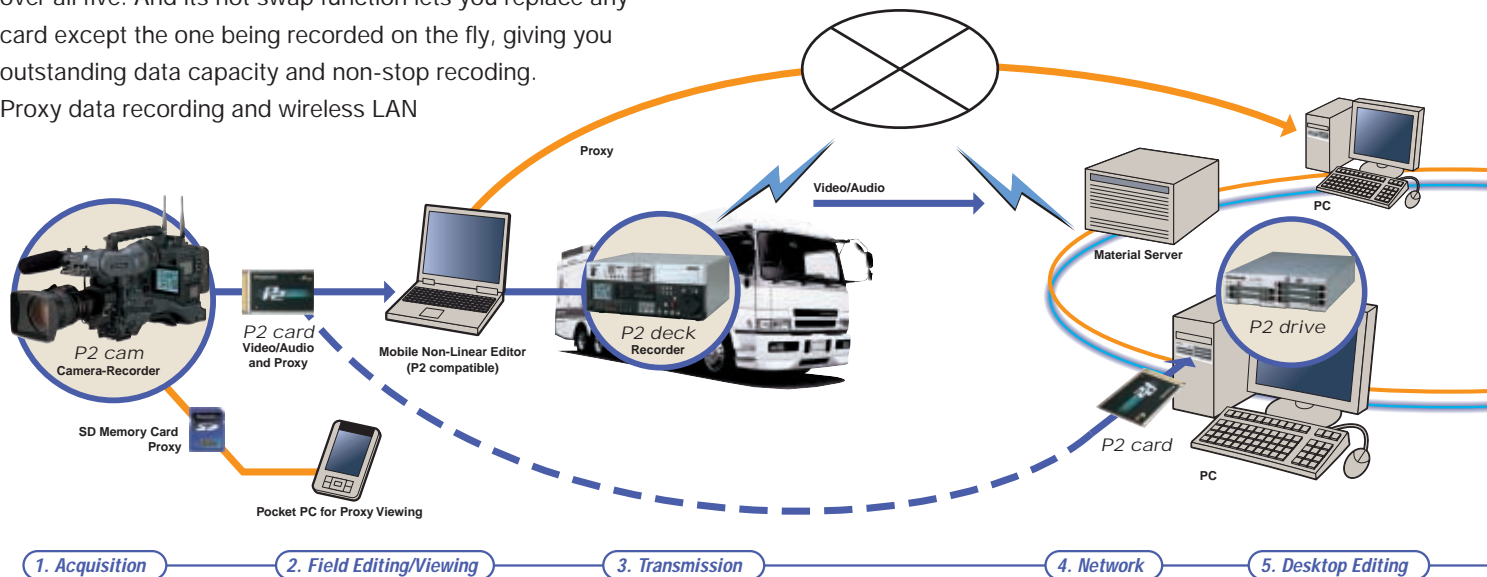
functions let you transfer low-resolution proxy AV streams with wireless ease. The P2 cam's built-in Color LCD Monitor displays thumbnails of recorded clips and allows seamless playback. The P2 cam also offers convenient features such as voice memo capability and shot markers.

Immediate Viewing, Data Transfer and Nonlinear Editing

P2 is fast. In data transfer and editing speed, it stands far beyond other media. The P2 card slips into the card slot on a laptop PC and mounts directly - no digitizing required - for immediate viewing or network data transfers.* With a P2-compatible mobile nonlinear editor, you can edit recorded clips directly. No uploading (file copying) is necessary. With a USB 2.0 cable, you can connect the P2 cam to a PC and use the cam's five card slots as an external drive. Powerful functions like these deliver you unprecedented speed in the field and greatly reduce production time -- a big advantage in this "get the news first and faster" business. Also, being able to use a laptop PC as a monitor, editor, and for data transfer means more mobility and less strain on your budget.
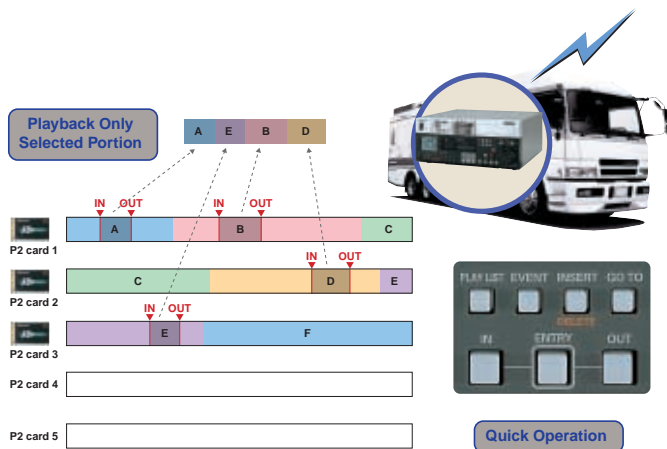
*The P2 card driver (bundled with all P2 cams, decks and drives) must be installed. The P2 card driver is supported by Windows XP and Windows 2000.

Proxy

Video/Audio

PC

Material Server

P2 drive

P2 cam
Camera-Recorder

P2 card
Video/Audio
and Proxy

Mobile Non-Linear Editor
(P2 compatible)

P2 deck
Recorder

P2 card

PC

SD Memory Card
Proxy

Pocket PC for Proxy Viewing

1. Acquisition — 2. Field Editing/Viewing — 3. Transmission — 4. Network — 5. Desktop Editing

Random Access Playback and Nonlinear Editing: The P2 deck

DVCPRO P2 provides super-fast transmission of news material from OB vans. A key component is the P2 deck, which features five P2 card slots and the same jog & shuttle operation as a VTR. Simply view the thumbnails of the recorded clips on the front-panel Color LCD Monitor, and use the jog dial to select the ones you want. The clips can be sent instantly for on-air playback.

The new Playlist function lets you play the equivalent of 100 events on a nonlinear editor, for quick post-acquisition program production and transmission. With a USB 2.0 cable, you also can connect the P2 deck to a PC and use the deck as an external drive for a P2-compatible nonlinear editor.

Studio Networking: The P2 drive

The DVCPRO P2 Series stands as a remarkably high-speed solution to studio networks that use nonlinear editors and AV servers. The P2 drive is designed for either built-in or external use on any PC equipped with a USB 2.0 interface. With the P2 drive connected, you can use a desktop PC* to instantly preview the data on a P2 card or transfer it to the server. Or, with a P2-compatible nonlinear editor you can use recorded clips directly as editing clips.
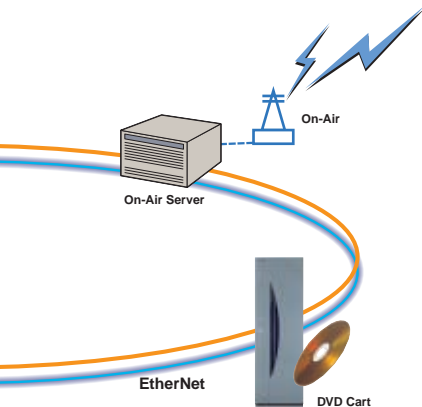
*The P2 card driver (bundled with all P2 cams, decks and drives) must be installed. The P2 card driver is supported by Windows XP and Windows 2000 operating systems.

More Flexibility — DVD Archiving and Combined VTR Use

Panasonic's ING concept – IT-based news gathering – is an open system. The P2 deck can be equipped with an optional, built-in DVD-RAM/R drive for archiving materials onto DVD. And P2 decks are equipped with the same interfaces as today's DVCPRO VTRs, so they can link seamlessly into conventional systems for tape editing and on-air transmission.

Simply, the P2 Series lets you make full use of existing equipment while moving your operation forward to a true nonlinear editing system.

Panasonic is also developing archiving cart systems that use optical discs. This will provide exciting ways to build a powerful, flexible system that delivers the higher performance you need at a cost that fits your budget.

6. On-Air/Archive

"Avid and P2"

Mr. David Schleifer
Director, Broadcast and
Workgroups
Avid Technology, Inc.

"Avid Technology, Inc. enthusiastically supports Panasonic's groundbreaking P2 format with native support for P2 files. The integration of P2 technology with the industry-leading Avid® NewsCutter® nonlinear news editing system and Avid Unity™ for News environment provides a comprehensive acquisition-to-playback workflow with unprecedented speed, ease, and flexibility. Media can be seamlessly moved into shared storage, while all metadata is transparently registered in the Avid Unity MediaManager asset management system. Multiple journalists and producers can immediately preview media, create shot lists, enter logging information, and when necessary, send media directly to playback.

When Avid Unity for News or Avid Unity LANshare™ for News and Panasonic P2 systems are installed at multiple sites, users can search all media at all sites, *simultaneously*. A simple drag and drop is all that's needed to move media from a remote site to a local site, via existing LAN or WAN links.

Avid editors can access the P2 media natively and begin creating news stories using the Avid NewsCutter editing system's wealth of news editing, effects, and workflow features. The NewsCutter newsroom computer system tool feature allows editors to open interactive Avid iNEWS or ENPS edit sessions simply and interactively editing video to the script. When the story is finished, editors simply move the story to air via the Send-to-Playback command, and use Post-to-Web to move the story to a Web server while automatically transcoding to Web resolutions. At any point in the workflow, media can be restored to a P2 card or drive, even directly from archival storage."

Products Supporting P2
• NewsCutter® Adrenaline™ FX
• NewsCutter® XP Mobile
• Avid Unity™ for News

Most Avid nonlinear products are expected to support P2 by end of 2004
www.avid.com

"Workflow at the Speed of News™ P2 Duo: Pinnacle and Panasonic Team to Improve Editing Workflow"

Mr. Greg Lowitz
Vice President of Marketing
Networked Solutions Group
Pinnacle Systems, Inc
Mountain View, California

"As flash memory proliferates in everything from PDA's to digital cameras, it was just a matter of time that the reliability of solid-state memory made its way into the first professional video cameras *with no moving parts.* Panasonic's revolutionary P2 flash memory technology is poised to redefine how news is done. While Pinnacle Systems has been shipping tapeless news production systems such as Vortex™ News for a few years now, the missing link has been widespread adoption of a tapeless acquisition format.

With P2, however, all that changes. Now, you can capture high-resolution video on a compact card that slips into your shirt pocket. Designed for the most demanding environmental conditions, the reliability of P2 is all but assured based on the proven track record of the SD memory chips inside. Plus, the handy PCMCIA format makes it universally accessible from any laptop or PC equipped with a card reader or USB2 serial bus. Simply remove the card and slip it into a card reader and you're ready to edit. No more transferring content from tape in real time. The high-bandwidth data transfer of P2 allows immediate access to video, giving an important edge in getting stories on the air.

Pinnacle is integrating support for P2 in the latest versions of Liquid *Edition, chrome* and *blue* non-linear editing software. A simple *XReceive* software plug-in is all that's needed to support basic A/V file import into the editing environment. This plug-in is accessible to an installed base of over 50,000 Liquid users, giving Pinnacle customers in post production and news a path to an all tapeless process. And since NLEs such as Liquid *Edition* and Liquid *blue* integrate seamlessly into the Vortex News architecture, Pinnacle is able to offer an end-to-end tapeless workflow, from acquisition to editing to playout— including support for rich, real-time graphics.

To see the Pinnacle-Panasonic P2 duo in action and learn for yourself how P2 improves *workflow at the speed of news,* visit Pinnacle Systems at NAB 2004 booth number SU10160 and Panasonic at booth number C3811."

Products Supporting P2
• Liquid Editing System
• MediaStream Server
• Vortex News System
• Palladium Storage System
www.pinnaclesys.com.cn/

"Quantel is extremely pleased to support P2"

Mr. Trevor Francis
Team Leader, Broadcast
Quantel Inc.

"With News and Sports production accounting for around 40% of Quantel's business, we recognise the advantages of a new format which offers many benefits to the broadcaster, including extremely rapid mounting of acquired media.

Quantel servers have supported native DVCPRO since the format was introduced. Now, broadcasters who combine P2 acquisition with Quantel's generationQ systems will be able to edit directly from the P2 memory, so gaining maximum advantage from Quantel's unique Frame Magic server technology."

Products Supporting P2
• generationQ Editing Software – QView, QCut and QEdit Pro
• sQServer
www.quantel.com

"Thomson Supports Solid-State Memory"

Mr. Jeff Rosica
Vice President, Strategic Marketing & Technology, Thomson Broadcast & Media Solutions.

"Thomson will support the Panasonic solid-state Professional Plug-in (P2) Series recording system and integrate it tightly into current generation Grass Valley™ brand digital news production and M-Series iVDR products, and plans to further integrate it across the product line. This next-generation workflow will make digital news acquisition and production as easy as removing a P2 card from a camera/recorder, inserting it into an iVDR for storage and playout - or immediately into the

Grass Valley NewsEdit™ non-linear editing system for digital news production.
Thomson recognizes the overwhelming advantages that solid-state memory (SD) media provides over tape-based solutions. The potential offered by SD memory in terms of instant access and higher transfer speeds, coupled with the equipment ergonomic benefits of a new form factor, make SD technology an important one to support going forward."

A **THOMSON** BRAND
Products Supporting P2
• News Edit
• Profile M-Series
• GVG News System
www.thomsongrassvalley.com

"The joint development of the P2 workflow by Panasonic and Dayang triggers video editing and storage technology innovation"

Mr. Yao
President, Dayang Inc.

"The new-generation P2 brings significant workflow change into TV stations and the global video broadcast circle. Avid, Pinnacle, Quantel, and Thomson will provide P2 supported equipment. In the Chinese local market, Dayang will provide P2 support for all the product lines while putting forward closer cooperation with Panasonic. It is expected that Panasonic will provide P2-employed hardware and network solutions at the same time as P2 introduction. Clients have attached great attention to the advanced P2 techniques as well as Dayang's strong system

integration competence.
Dayang expects P2 to be popularized in combination with the workflow of TV stations. A framework agreement was made by CCTV, Panasonic and Dayang on December 9, 2003, for a project utilizing P2 in producing programs for the CCTV economics channel. It inaugurates a new creative project module in the Chinese video-broadcasting field.
It is highly expected that the development of P2 will bring fantastic change to the video broadcasting field next year and, moreover, influence the future, with a view toward use in the 2006 World Cup and the Winter Olympics."

DAYANG
Production Automation Archiving Networking
Products Supporting P2
• X-edit
www.dayang.com.cn/

BBC

cbs

RAYCOM *Media*

FOX

ITN

tf1

REUTERS

mdr

Sogecable

ZDF

P2 - A JOINT DEVELOPMENT WITH THE WORLD'S BROADCASTERS

With P2, it's not just the technology that's new. It's the concept, too - achieving a better workflow in currently operating news and broadcasting operations by introducing equipment that dramatically reduces size, time and cost. Bringing this concept to life is not something an equipment manufacturer can do alone.

That's why Panasonic, developers of DVCPRO series equipment, listened closely to the demands of news and broadcasting companies. Our goal was to develop a next-generation system. Our approach was to form a partnership with leading broadcasters all around the world (as shown above) and develop the system together.

The result is P2.

Every stage of development - from initial concept to final specifications – was driven by actual needs and included extensive testing. That's why P2 is both highly innovative and extremely practical.

And it's why P2 is revolutionizing the workflow in the field and at the studios of news and broadcasting companies all around the world.

P2 Support Program

Panasonic has won the customers' confidence for outstanding DVCPRO Service around the world. As the P2 Series leads the workflow innovation from ENG to ING (IT-Based News Gathering), DVCPRO Service is now evolving to take advantage of IT technology. The P2 Support Program will blossom fully into an ING style providing GLOBAL, LOW-COST, and RAPID Service.

P2 Global Support Network

Panasonic presents the P2 Global Support Network. Fifty-four (54) support locations will be ready to support P2 products in 2004. In addition, (30) thirty of these locations are capable of supporting both NTSC and PAL systems and will provide 'ING' news crews support around the globe. For example, when you travel to Germany with NTSC equipment and require service, the support center in Germany can provide a backup unit.
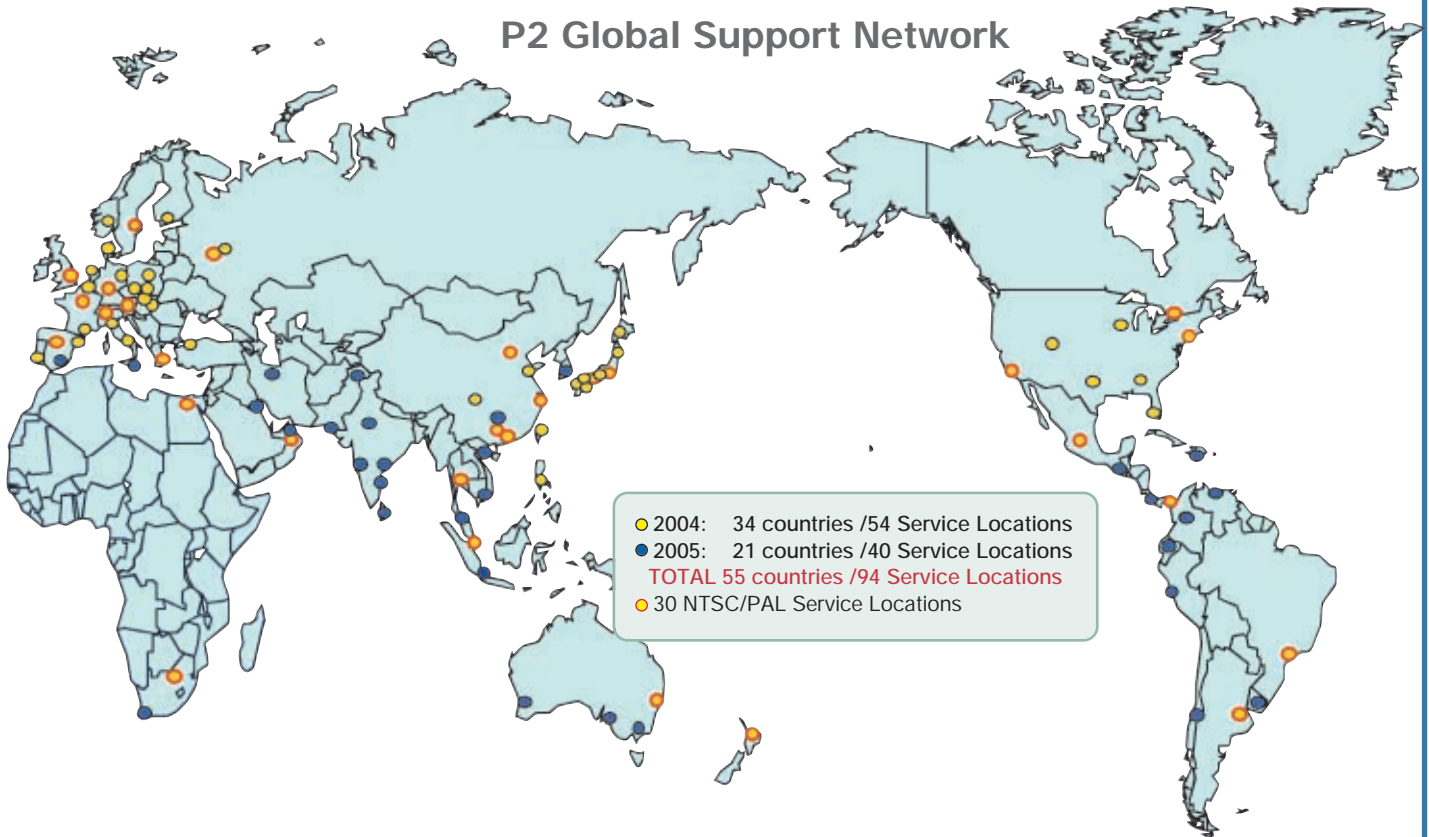
P2 Low Running cost & 48 Hour Repair

Unlike conventional VTRs, the P2 series doesn't require mechanism maintenance such as cleaning video heads, or replacing worn parts. Furthermore, with its "No Tape" mechanism, the P2 design eliminates most adjustments and provides for speedy and low-cost repair. Panasonic's P2 repair centers, equipped with special tools and skills, will target to complete repairs typically within 48 hours.

P2 IT-based Support (Option)

The P2 improves the support workflow with two IT-based support features (Optional).
One is software upgrading via an SD card. You can download the latest software from the Panasonic support Web Site to a SD card, put it into a P2 equipment and updating is done by a simple menu operation. Thus your P2 can always be up to date.

P2 SUPPORT – NEW CONCEPT, NEW TECHNOLOGY

P2 Global Support Network

- ○ 2004: 34 countries /54 Service Locations
- ● 2005: 21 countries /40 Service Locations
- TOTAL 55 countries /94 Service Locations
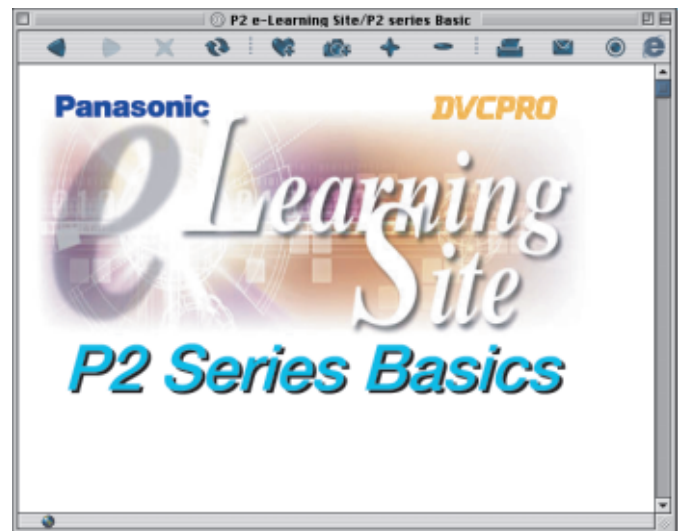- ○ 30 NTSC/PAL Service Locations

The other improvement is computer-enhanced diagnosis, that will minimize problems in the field by checking your P2 product's condition before it goes into the field.

P2 E-learning (Option)

Panasonic has held DVCPRO Web Based E-learning courses since 2001. The newly-offered P2 courses will help your smooth transition to an ING environment.

Course Contents: Features, Operation, Basic Technology, Circuit Description, Q & A.

Welcome to Beyond and the DVCPRO P2 world. I would like to express my deep gratitude for your interest in our products.

As you know from industry trends, we are living in a most exciting time. The proliferation of advanced AV and information technology is bringing profound change to our industry, and at unprecedented speeds.

The transformation from analog to digital and now to information technology promises to bring the broadcast industry greater workflow efficiency at each level of operation, reducing your cost of ownership.

Clearly we are at the dawn of a new era. An evolutionary shift is taking place in the industry, as the new IT news gathering - or ING - begins to replace conventional electronic news gathering.

As core products for this new era, Panasonic is launching the DVCPRO P2 series - highly market-oriented products that bring higher speed, quality and cost-performance to broadcasting operations. P2 is based on the same core technology as the SD Memory Card, now the world's most widely used digital media.

The P2 cam, P2 deck, P2 drive, P2 card and other key nonlinear equipment are all strategically supported by our partners, global leaders in their fields. And the P2 product range will continue to grow over time, bringing dynamic performance and greater efficiency to an ever-wider range of applications.

In line with our "open mind" strategy, Panasonic is working closely with several key partners in establishing a P2 workflow. With P2 as our base, we will continue developing ING systems and equipment that meet the industry's news gathering and production needs.

At the same time, we will introduce new P2 cards with greater memory capacity and launch P2-HD equipment as part of a migration from SD (standard definition) to HD (high definition).

I'm certain that our customer-oriented approach will allow everyone in the industry to adopt a long-term viewpoint in their investment strategies.

I hope this publication will be useful to you, helping you learn more about P2 and the industry's evolution.

We will keep you informed as this technology and family of products spread around the world through the mutual efforts of Panasonic and our partners. We look forward to your joining us in the ongoing evolution toward P2.

T. Shimozuru

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