

# Thinking

generationQ - the full story  
Making light work of HD  
Artist of the Year  
Monkey business



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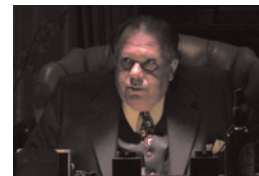
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Thinking Magazine  
produced by Quantel  
All articles ©Quantel

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Cover image  
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Introducing generationQ  
generationQ is a new generation of scalable, integrated technologies for editing, effects, graphics, news and production applications right across the broadcast and post production markets.

generationQ for graphics means that the Paintbox® is back! Of course, it never really went away but new generationQ actually increases the magic of the world's favourite video design environment and, for the first time, brings it to all levels of the broadcast workflow.



QPaintbox running on a PC

## generationQ graphics

**Next generation graphics**  
Paintbox has always been regarded as the doyen of graphics machines. Back in the '80s the first systems transformed the way graphics were created for television, and over the following two decades Paintbox and Hal® blazed the creative trail in broadcasters all around the world. For close-to-air graphics Quantel systems have no competition for productivity and reliability.

At NAB the new generation of Quantel systems hit the ground running and for the graphics world that means scalable software that puts the incomparable Paintbox design environment on the PC - a long-held dream for many designers - plus the launch of a new super-powered graphics platform for close-to-air applications. Together they create a resolution co-existent graphics environment for real co-operative teamworking.

**gQ - next generation hardware**  
gQ is the new dedicated hardware platform for graphics, which delivers blistering performance up to 60x faster than Hal® at standard definition! This top of the range machine delivers eye-catching, dynamic moving graphics with all the performance you need for close-to-air applications. Gigabit networking gives superb connectivity to the rest of the production team - whether PCs, Macs or other Quantel systems - so everyone can share media, templates and archives and gQ can act as a network hub, media management centre and final production compiler.

gQ brings Resolution Co-existence™ to the graphics environment allowing designers to combine material of any resolution in the same sequence. With gQ an SD video element, an HD background, a graphic downloaded from the web and a high resolution print scan can all work together. The new Digital Rostrum Camera feature makes it easy to fly around or zoom into high resolution backgrounds without building complex multi-tile DVE moves.

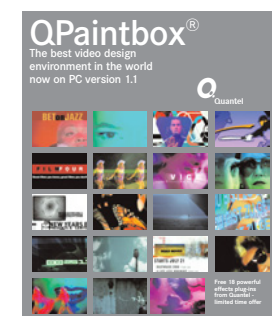
New features such as live layers, animated graphic elements, multiple undos and full graphical keyframe control increase productivity still further. Broadcast-specific features such as HD and SD key out make gQ the natural choice for demanding close-to-air applications.

**QPaintbox® - next generation software**  
Running on a standard PC, QPaintbox® brings the legendary Paintbox user interface and ergonomic elegance to the desktop where many more designers will now be able to work with a 'real' Paintbox and enjoy its unique features. Designers can now enjoy working on design development in the Paintbox environment but on a significantly lower cost workstation. The software has the same toolset and user interface as gQ and networked together any number of PCs can work alongside gQ and share images and data. The ability to save and recall every stage of a project makes QPaintbox® ideally suited for templating applications. It's great to spend time designing on the desktop and then, when the time is right, transfer to gQ for blazing processing performance to get graphics on air.

This all means that in a broadcast graphics department the 'right tools for the job' can be employed for different aspects of a project every time - detailed design work, pre-visualisation and templating can be done on the PC, and time-pressured work can be transferred to, or originated on, gQ. This is a workflow model that works efficiently, economically and delivers the best look to air.



gQ - close-to-air video design



Paintbox on the PC

# Thinking



**In this issue you'll find a huge amount of coverage on generationQ, our new product range. generationQ is the biggest product launch in Quantel's history with new products in all of our main areas of business - graphics, editing and effects, news and production.**

These new generationQ products are radically different - they have all of the special attributes that people have loved about Quantel products in the past, such as performance, reliability and great ergonomics, but they're based on all-new hardware and software, including Quantel software running on standard PCs for the first time.

These products all spring from a long running R & D project, known within the company as Monty. It has been many years in development, building the foundations for the products you see today. The first generationQ product was iQ, introduced at IBC 2000. iQ introduced some of the unique technologies that have sprung from the Monty programme, for example, Resolution Co-existence™. This ability to hold multiple resolutions in their native form on disk, edit different formats together and then choose any target destination format, has transformed working in a multi-resolution world.

However, we wanted to make our technology much more accessible. So generationQ is about delivering, for the first time in our industry, completely scalable solutions which share the same software, user interface and file formats, but making those available on a range of different price performance platforms. For example, customers for editing and effects solutions can choose a product to suit their needs and budget - at the high-end, iQ, which offers realtime 2K capabilities, or, at the other end of the scale, a software product such as QEffects, which has the same compositing and effects software as iQ running unaided on a standard PC.

That same philosophy extends to our graphics range. Our new high performance, close-to-air graphics product is gQ, but it is complemented by QPaintbox® - Paintbox® on a PC. Working together in a distributed environment these new graphics products offer superior workflow solutions and let many more people have access to the creative tools they need. I know how important Paintbox® is to many people from the emails I get - the fact that this new generation Paintbox® is available on the PC and accessible to so many more people will, we believe, be warmly welcomed in the market.

In our news area, we're applying the same philosophy - completely scalable server solutions, with no limits on storage or ports, combined with completely scalable timeline-based editing solutions running on standard PCs, PCs with Quantel hardware inside, or high performance realtime HD systems. Unique technologies such as Frame Magic™, and Integrated Server Automation make configuring a system easier and lower cost than ever before.

So that's it. The most ambitious product introduction in our history. New generation products that work with our existing range. The best of what we did in the past, combined with the best of the IT world in terms of networking, workflow and open standards. Massively exciting! We're keen to help people find out more about these new products and see them in action. There's lots of information in Thinking, but also check out our website for regular updates and details of events near to you. We hope you like what we're doing - don't hesitate to let us know.

Nigel Turner  
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generationQ for post powers up the already awesome iQ, introduces the new eQ mainstream editing platform and launches Quantel's first software-only professional post applications. True scalability means that performance platforms can now be blended with desktop software to build systems with unprecedented levels of flexibility and value.



eQ - a new value platform

## generationQ editing and effects

**next generation post generationQ gives post facilities the ability to create a completely streamlined, cost-effective, adaptable production environment. generationQ for post means ultimate power, total scalability and profitable workflow solutions - a new future for post production.**

The scalable hardware and software of generationQ means the right skillset, tools and performance are available for every part of the job. From the PC right up to realtime 2K, generationQ offers a solution. At the high-end, iQ delivers multi-resolution, multi-format working for 2K, digital film and beyond for a variety of applications - digital film assembly, hi-res colour correction, HD online, film trailers, 24p mastering and restoration. For SD work the new eQ platform is a high performance, resolution co-existent, timeline editing and effects workhorse which has the additional capability of handling HD work. And to complete the picture, QEffects brings all the compositing tools of iQ and eQ to the desktop, together with the same interface, for true project sharing between the PC and higher performance platforms.

### An even better iQ

iQ is in use in some of the most demanding post facilities all around the world, in applications that demand the highest quality and performance such as film restoration, digital mastering, HD online, realtime colour correction and film post. These facilities have played a vital role in developing iQ and setting future plans, and at NAB we saw the results of their feedback as the future-proof architecture of iQ enabled it to become even more powerful:

- Up to 7TB of storage allows for massive or multiple projects online
- A new SAN/fibre channel option adds even more networking flexibility
- HSDDL and a realtime 2K interface boost performance in colour correction applications
- AAF-based data archiving delivers open project exchange
- A new split screen multi-res offline/online comparison mode

### eQ - a new editing workhorse

eQ offers efficiencies and co-operative workflow in the SD environment and opens up new high resolution business to the mainstream post house. This is a new value platform with real media processing power available at a truly affordable price.

eQ is a completely new mainstream editing system that delivers powerful media processing at the price point of some PC systems. Built on the new architecture eQ delivers realtime Resolution Co-existence™ for HD and SD applications. Powerful frame rate and aspect ratio management tools make producing different versions a realtime playout task. Instant loading, YUV/RGB processing, RAID protected storage, gigabit networking and 100% project compatibility with iQ make eQ a workhorse platform for many SD and HD editing applications throughout broadcast and post.

eQ's gesture-driven, next generation timeline delivers real editing power but without the clutter of layers of menus. Every editor will feel at home in the player recorder view while the power of the freeform edit desk is only a pen press away. For a more physical experience the jog/shuttle unit provides a real manual control for precise tactile response and fast shot marking.

**QEffects** - extends the power of iQ and eQ onto the PC with the same toolset, the same user interface running on a less powerful platform. The common project format ensures that work can be easily transferred between QEffects, iQ and eQ with every set-up intact. QEffects is perfect for labour-intensive applications such as rotoscoping and complex keying and it is easy to set up test composites on the desktop and then transfer them to iQ or eQ for blazing processing performance, or if time allows, finish them in the desktop.



## V1.2 software for iQ

**The flow of software developments for iQ continues apace - Quantel has just released V1.2 with a host of new features as a free upgrade to iQ users. The new features are the direct result of customer feedback, and further help to make the particular needs of high resolution post a practical reality.**

V1.2 adds a sheaf of effects tools, including fast directional blur, multi-point tracking, spline garbage mattes and multi-layer text.

Complementing these are new workflow tools, all designed to get the job done even more efficiently - these include:

- Film matching - to ensure that what is on-screen matches what will appear on film. The configurable film matching LUTs offer colour matching in addition to grey scale - thanks to the power of iQ's hardware.
- Offline compare - critical in HD and film work - a facility to allow the offline edit to be viewed split screen with the online. Thanks to iQ's Resolution Co-existence™, each is held in its native resolution. Other systems without Resolution Co-existence™ require the offline imagery to first be up-rezzed to match the online, massively increasing both storage requirements and timescales.
- Any-res AVI export - allowing material to be exported (as a background task) in any required resolution - for example, to be remotely approved on a PC. Another benefit of iQ's Resolution Co-Existence™.
- Re-aspect versioning - self-explanatory, and a perfect complement to iQ's multi-format capabilities.

Keeping track of the project and distributing workload is equally vital in the modern post production workflow model, and V1.2 also adds a series of project management tools which keep the iQ user firmly in control. These are:

- Enhanced library - enabling the library to be set up with multiple 'bins' for different jobs, and stored footage to be reviewed directly from the library.
- Data archive - either via the network - perfect with an HSM system, - or to a DTF2 tape drive (both as background tasks).
- History editing - allowing later changes to be made without having to re-do the whole job.
- Background load - iQ will now accept material from the Image Mine background loader.

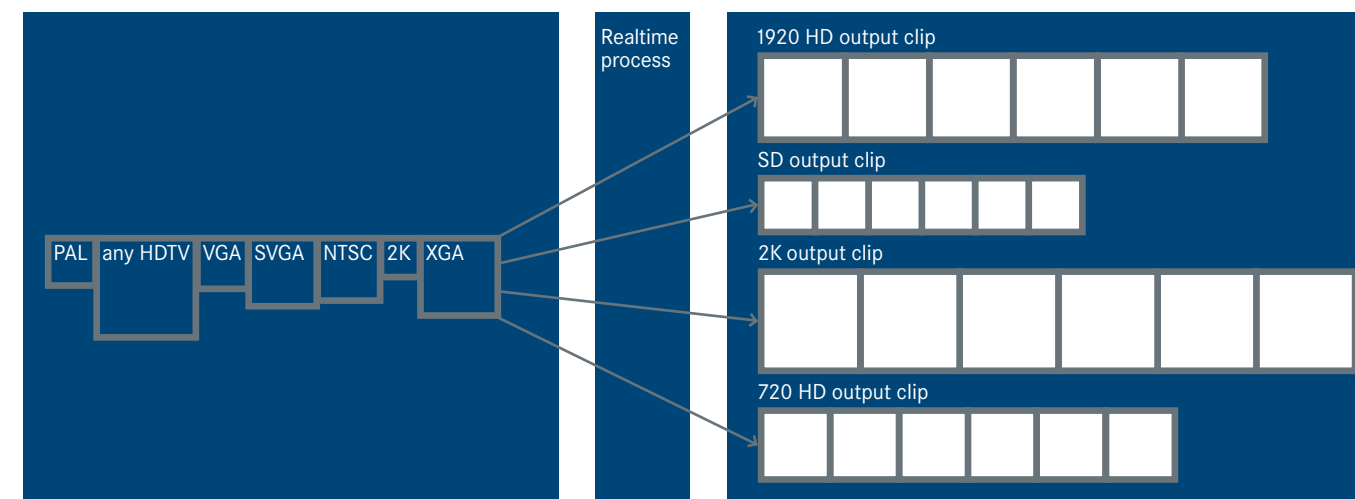
## Resolution Co-existence™

Resolution Co-existence™ is a technology invented by Quantel, and unique to Quantel generationQ systems. It describes the ability to ingest, simultaneously work with and output from, multiple clips of any resolution, in any format, at a variety of different colourspace and bit depths. Operators work with the clips interactively in any combination and still in original format, to produce results in realtime at full resolution. Work is displayed at full resolution in any chosen format at

all times - with no preparation, pre-conversion or pre-planning required. Any conversions happen in realtime as the edit is played out.

Resolution Co-existence™ guarantees the highest quality output whatever the material, since conversion only happens once. It also simplifies versioning in different formats as the edit is merely replayed requesting a different output format. It should not be confused with 'Resolution Independence', which

describes a system's ability to work with material at differing resolutions, but only with one at a time, depending on the operating resolution chosen. This clearly limits operational freedom in requiring the selection of target format before work can commence, restricting workflow, limiting output flexibility and leading to quality losses.



Multi-resolution timeline

## Five iQs for Modern

**Burbank-based Modern VideoFilm has purchased four additional Quantel iQ systems. These will join the facility's existing 2K digital film mastering iQ, which has been installed since December 2001. The impetus to purchasing the iQs came down to three critical factors for Modern, according to its president and CEO, Moshe Barkat.**

Currently operating eight linear editing suites, executives were looking to realise all of the benefits non-linear editing has to offer. Secondly, Modern was seeing an increase in high definition work (doubling annually) coming through its doors and needed a scalable and stable system to meet the pressing requirements.

And thirdly, the facility needed an editing system that could provide the speed and flexibility Quantel operators and clients were accustomed to for 2K resolution. 'The technology we see exhibited in the iQ opens the door for a much broader range of services that we can provide our clients,' said Moshe Barkat, president and CEO of Modern VideoFilm. 'We see the best of both worlds between the old Quantel values of ergonomics, speed and performance, and new Quantel openness to meet the needs of the environment in which we now need to function.'

Quantel executive chairman, Richard Taylor said: 'We are absolutely delighted with Modern VideoFilm's decision and the confidence this demonstrates to the post production marketplace. Modern has a reputation for being a pioneer that does its homework carefully. This purchase sends out a clear message to the market.'

In the coming months Modern plans to transition its HD editing activity onto the iQ, the majority of which is longform episodic television shows, movies of the week and sitcoms. During the current television season Modern VideoFilm worked on several HD shows, among them are: "Everybody loves Raymond", "Crossing Jordan", "American family" and "The Guardian" which was the first show to make the transition to the iQ.

Modern VideoFilm is a full service post production company with facilities in Los Angeles and San Francisco. The company provides feature film mastering, editing, visual effects, duplication, and audio services. The company's clients include all the major Hollywood studios, many of the independent production companies and over 30 television shows that air currently.

## First iQ in New York

**Manhattan-based Tapehouse has become the first post facility in New York City to acquire iQ. Known for years in New York as a company that constantly stretches the boundaries creatively and technically, it was only natural that Tapehouse embrace the iQ as the platform of choice for non-linear, multi-resolution editing.**

'As early players in HD editing technology, before we had the iQ, I used to brace myself for the complaints I would get for the things we could not do in the edit session,' said Peter Heady, senior high definition editor. 'I don't get that with iQ. Our clients are now surprised with what we can do rather than disappointed with what you can't do. The iQ has essentially replaced our linear editing rooms.'

Because Tapehouse has a robust feature film mastering business, the 24P dustbusting/digital restoration potential of the iQ was what first attracted them to the system. Around August 2001 a wholesale changeover in the deliverables of features with clients requiring 24P masters made the decision obvious.

To meet their clients' expectations, executives at Tapehouse had researched the marketplace for the right 24P HD solution. 'Nothing we saw was meeting all of our needs,' said Tim Spitzer, director of HD and longformat services. 'At that point Quantel approached us and said they had a box called iQ and it's ready for primetime! It was!'

Today Heady and his team have been busy churning out both short and longform work on the iQ on a regular basis. What started out in the minds of Tapehouse operators and producers as the perfect system to perform feature cleanup work, has turned into the perfect box to edit promos and cinematic commercials for such high profile brands as Ralph Lauren, M&M's candy, Moviefone, SiFi Channel's Babylon 5 and cinematic commercials to run in HD and in standard definition for Court TV.

In addition to shortform projects, Tapehouse has also recently completed extensive work on a new Spike Lee film titled Jim Brown, All American, due to air in November on HBO. 'For this project we were able to really capitalize on the iQ's media agnostic capabilities,' said Tim Spitzer. 'We were able to bring in material from 24P HD video, 2K data files and titles and

up-rezzed standard definition which our digital film division had also created. The iQ is very flexible in terms of being able to bring in a wide array of material. The ability to mix and match media format is a delight.'

Tapehouse Vice President of Marketing, Alfie Schloss said that clients welcomed the iQ as the tool of choice for today's creative production requirements. 'I think the speed with which iQ works gives us an edge. Our clients love Henry, so as a result when we tell them that the iQ is a resolution co-existent, format agnostic Henry on steroids, they are immediately excited to experience the new technology.'

Schloss went on to say, 'The bottom line is it's fast, cost-effective and versatile and as a selling tool it gives us an edge over people who have linear 24P rooms or people working on systems that require long render time. It gets the job done and there's no downside.'



iQ - ultimate performance for the high-end

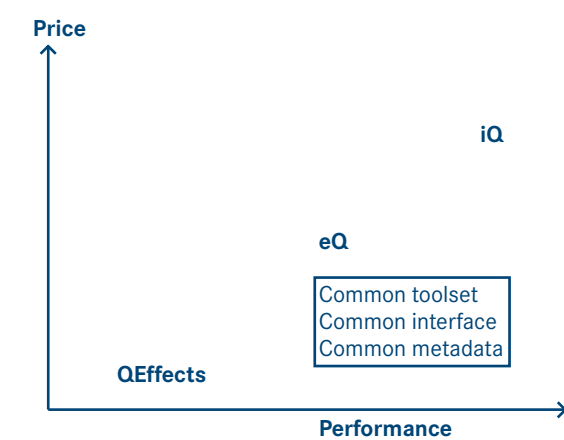
## The architecture advantage

The idea of scaling applications from the most powerful hardware all the way down to the desktop has attracted media professionals for years. But somehow that dream has never been realised, whether it's a different OS, hardware that doesn't scale or simply systems that don't have the performance and quality needed, something always gets in the way. Until now.

A few years ago Quantel realised that the only way to deliver what media professionals need was to design a new architecture for content creation. The architecture would be capable of delivering unparalleled levels of performance and quality but also of running on a desktop system. Insulated from the underlying OS, software could run right across the performance spectrum and take

advantage of new computing and hardware developments as they came along. Connectivity and project exchange would be at the heart of the approach allowing teams to share and exchange ideas without restriction. And of course, the architecture needed to be open, allowing Quantel and other developers to exploit its power without restriction. The new architecture was first used in iQ, the ultimate high-end system for post production and the first generationQ product.

Now with the introduction of eQ and QEffects - and indeed the whole generationQ range - the full benefits of this approach have become apparent.



generationQ for news and live production brings the integrated system to every level of the broadcast market, from the smallest station to the largest international provider. The new range offers true scalability of hardware and software for ultimate flexibility.



## generationQ news and live production

**next generation systems**  
generationQ for news and live production builds on the proven technology that has already made Quantel systems number one in news. There are already more Quantel systems installed and working in broadcasters around the world than from any other supplier. The generationQ systems combine this experience with powerful new technology that delivers at every level - complete scalability of hardware and software (key to the ethos of generationQ), next generation timeline editing on a range of hardware platforms, a common, progressive interface, true journalist integration, file-based connectivity, and, the ultimate flexibility to create a system of any size to meet any need.

**next generation server**  
At the heart of generationQ for news is the sQ Server, a development of Clipbox, Quantel's true random access server technology. The sQ Server has several unique attributes which together eliminate much of the system complexity and cost inherent in standard server technologies.

The sQ Server integrates and locks together browse and full bandwidth video in the same server, under a single, system-wide SQL database. The integration problems of separate browse systems - one of the biggest broadcast headaches - are simply avoided with the sQ Server.

The sQ Server is broadcast and IT bilingual - equally at home in the worlds of files and frames. Broadcast demands are met by its ability to deliver all its power across all its ports, all the time. A Clipnet gigabit Ethernet gateway and SQL database offer IT connectivity for simple connection to archive, ingest and automation systems - leaving video ports free for guaranteed realtime ingest and playout.

Frame Magic™ intelligent media management simplifies workflow and eliminates production errors - for instance, source clips can be deleted without harming unconfirmed edits, at a stroke eliminating the broadcaster's nightmare scenario. See the sidebar for a full explanation of this unique-to-Quantel facility.

Each sQ Server essentially acts as a building block which can be used to build a virtual server to create the size of system required - anything from the smallest local station to a national, 500 workstation system. Add more sQ Servers to create more storage, ports and editing - Quantel's unique Integrated Server

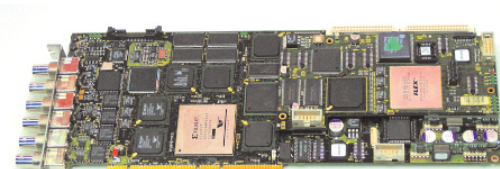
Automation (ISA) simply expands itself across all the connected servers without the need for additional software or integration - no matter how many sQ Servers the system comprises, they appear as a single unit to the outside world - an automator's dream.

Because the sQ Server takes total responsibility for its internal management, ISA also makes the system integrator's task much more straightforward and produces a system with built-in reliability. The sQ Server is also fully MOS compliant, making integration with newsroom systems a simple plug-and-play operation.

**next generation editing**  
generationQ scalable software, QEdit, runs on several different levels of hardware and the software can be configured at many operational levels thus covering every conceivable application in news and production.

In the newsroom or production centre, a standard PC sits on all journalists' desks. This is quite capable of supporting production viewing and reviewing (QView), simple cut-only editing and voice-over (QCut). Typically, the Quantel software would be running alongside other applications such as newsroom, wire services etc. on the PC, giving the user a totally integrated production centre on their desktop. For field editing, the Firewire-equipped laptop is the natural choice and this can be configured with all the necessary tools to support straightforward remote editing on a standard laptop PC.

For higher performance editing requirements, Quantel has produced a video i/o and image processing PCI card to boost the performance of the standard PC. In combination with fully featured QEdit software this will support most craft editing requirements. It is also ideal for applications such as stand-alone use in OBs/Remotes. For layering intensive or multi-resolution work Quantel's eQ platform offers additional capabilities.



Performance-boosting PCI card

All workstations are connected to the sQ Server via Clipnet gigabit Ethernet, leaving all the video ports free for guaranteed realtime broadcast operations. Editing can commence on any connected workstation as soon as the first frame arrives from the sQ Server. As soon as the edit is completed on the workstation, it is available to go to air from the sQ Server. This is possible because the edit seat shares the same database as the sQ Server. When an edit is completed on the workstation it does not need to transfer the edited video back to the server, only any modified frames (perhaps for a dissolve) and the edit instruction set (effectively an EDL) to inform the server to read out the frames in the modified order. Quantel calls this Delta Editing and it is only possible because sQ is a frame-based server. Delta Editing guarantees the fastest possible route from ingest, through editing, to air while keeping network transfer overheads to a minimum.

**next generation software**  
QEdit offers a single, simple timeline editing interface with all the tools for browsing and editing both the lo-res and broadcast quality material and provides a single, smooth migration path between material selection and craft editing.

On the way it includes features rarely found on any networked edit stations, though key to the slick operation of any live or near-live operation, such as voice-overs and split-audio edits. QEdit offers the entire range of features for the production network, individual users can access the level of functionality they require at their workstation. This enables the feature-set to be tuned exactly to the particular requirements, skills and abilities of each operator and ensures the most cost-effective use of available resources. As operators develop their skills, and the workloads change and grow, so this single software provides a natural, progressive, development path from browse to craft editing. Training becomes a fast and easy process.

**next generation broadcast graphics**  
generationQ also offers the broadcaster a scalable, integrated graphics solution. QPaintbox software also runs on a range of platforms, on the PC for templating and design work; on the new, powerful gQ hardware for close-to-air applications.

## Frame Magic™

An apparently simple and totally logical concept, Frame Magic is nonetheless unique to the sQ Server. Behind the simplicity lies powerful broadcast technology that eliminates cost and complexity from integrated production systems. Unlike conventional servers, the sQ Server treats every frame in the store as an entity in its own right, rather than as part of a larger file.

At its simplest level, Frame Magic means that when an edit is made between two clips of video, this is held merely as an instruction set in the sQ Server to read the

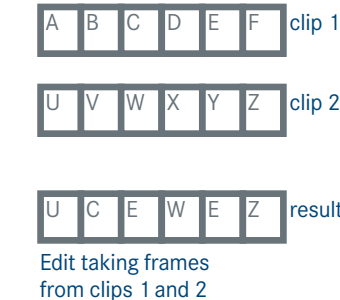
selected frames from each clip out of the store in the new edit order. Even if the source clips are deleted, the edit can still be played. Because Frame Magic looks after every frame as an individual, only the unused frames are actually removed from the store. Now imagine a newsroom with say 20 journalists and editors working simultaneously. If each is using different sections of the original source clips and one of these is inappropriately deleted without Frame Magic, 20 stories would be lost. This is a nightmare scenario for broadcasters considering entering

the server-based news production arena, which Quantel has totally eliminated.

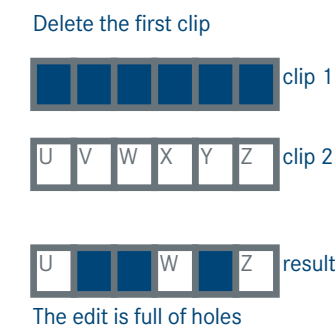
Additionally, Frame Magic eliminates the cost and complexity of the management layer that would otherwise be required to prevent such accidents happening; furthermore, there is no need with Frame Magic to hold onto unused material as 'accident insurance', which radically reduces the amount of useful storage in the server. Frame Magic is a win-win technology - reducing costs and complexity, increasing performance and security.



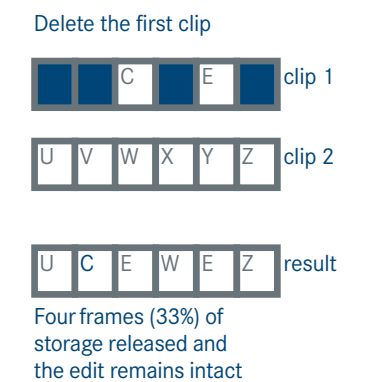
### Original Edit



### Without Frame Magic



### With Frame Magic™



## Integrated Server Automation

One of the major reasons for the cost and complexity of many server-based news systems is the need to manage the contents of several separate servers simultaneously. Where one or more of these is a browse server looking after journalist desktop editing, the problems multiply further. Quantel's generationQ news systems are unique in eliminating these problems, which not only provides more reliable service for the broadcaster under pressure, but also removes a major cost from the system - one of the reasons why generationQ for News systems typically have a significantly lower overall cost than competing systems.

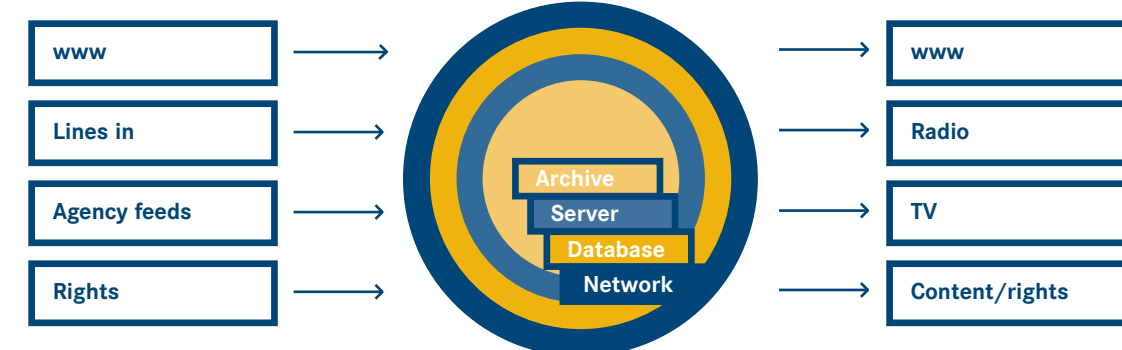
The technology that enables this is Quantel's Integrated Server Automation (ISA). This operates at two levels within the generationQ News system. Firstly, the sQ Server stores browse material alongside the full resolution video on its internal disks. This is only possible because sQ is a bi-lingual (browse) and broadcast (full resolution) server. Browse and full quality material are locked together under a single ISA database. Other systems utilise a parallel database

(usually with the browse material held on a separate server from the full quality video) which attempts to track changes in one and relate them to the other. The Quantel ISA approach simply eliminates this potential problem (and cost) at source.

Secondly, when a larger generationQ News system is assembled using several sQ Servers, ISA continues to treat all the material held as if it were on a single server. Effectively it is - a single database locks them all together. Other systems require separate management for each server, in turn brought together under a larger database - once again adding a high level of complexity and cost which the Quantel ISA approach eliminates at source.

generationQ has also given the network - which uses the same software across all its edit platforms - the ability to provide whichever version, the browse or the broadcast quality, is best suited to the application.

### Realising the broadcast vision



sQServer

## BBC orders generationQ for regional news stations

**BBC English Regions (BBC ER) has placed the first order for two of Quantel's unique generationQ news systems. At a stroke, the BBC has led the way into a new era of broadcasting technology that delivers all the potential of integrated production systems.**

The generationQ systems will be installed at the BBC's Norwich and Leeds regional news operations; in addition, BBC ER has taken options on a further three systems for other regions. The order, placed through systems integrator Dega Broadcast Systems of Basingstoke, UK, is part of the BBC's plan to re-equip all of its regional news operations with server-based systems over the next three years.

Quantel executive chairman, Richard Taylor, said, 'We could not ask for a better endorsement for our generationQ news technology. While we have only just announced generationQ publicly, we have been working closely with the BBC while the system was in development. They have been immensely supportive and have made an invaluable contribution to the final shape of the concept.'

The generationQ systems chosen are centred around the new sQ Server with 11 connected PC workstations running versions of the new QEdit progressive software. Five of these PC workstations are powered-up with Quantel video i/o and image processing hardware to boost performance for craft editing. Of these, two replace existing (tape-based) craft editing suites and three will be placed within the newsroom for journalists to use.

The remaining six workstations are standard PC's, running cuts/voice-over versions of QEdit desktop editing for the producer and programme editor, or QView for Subtitling, Librarian, BBC On-Line and Radio Transfer. The timeline editing interface remains the same across all these applications, simplifying training and offering the easy migration path necessary for multi-skilling.

The sQ Server is configured with 50 hours of MPEG25 and is expandable to any number of ports and storage required. On-air playout automation is also supplied by Quantel in the form of its sQ FX playout panel. Integration with the ENPS newsroom system is via MOS; ingest automation and archiving is supplied by IBIS.

The post production business is changing. Even at the high-end it's no longer just about standard definition commercials and productions. Post houses and their customers are busy developing new applications, often mixing a number of resolutions in a single production and demanding results in a wide range of differing formats. A project completed on iQ by forward-looking Australian post house, Ambience Entertainment, for the Toyota Motor Company, is a superb example of the kind of demands made on post houses today.

# Making light work of HD

## The challenge

The biannual Tokyo Motor Show attracts a massive two million visitors. Being in the heartland of many of the world's largest motor manufacturers, it naturally provides one of the industry's most important launch platforms for new models and new concepts – none more so than for Toyota. Not only does Toyota have more than 40% of the home auto market, it is also Japan's largest company.

The unveiling of the new Toyota prototype 'FXS' car at the show therefore demanded the full treatment: big, innovative and exciting. Toyota called in one of Japan's largest advertising agencies, Dentsu Inc. The car manufacturer wanted a concept and execution to convey the excitement and attributes of the new car to the thousands of visitors who come to the Toyota stand every day. Dentsu in turn brought in Australian post and special effects house Ambience Entertainment.

## Ambience Entertainment

Based in Crow's Nest, Sydney, Ambience Entertainment is one of Australia's leading post operations. More than a facilities house, Ambience Entertainment centres its operations around its strong design background, its expertise covering everything from broadcast design and animation, to feature film work, with particular skills in the effects area. With a Henry® Infinity and HAL® already on the equipment roster, Ambience Entertainment has long had a close relationship with Quantel – hence they were already well aware of iQ's capabilities when scoping the Toyota project.

Together, Ambience Entertainment and Dentsu designed the look and content of the piece, storyboarding, scripting and mapping out the various scenarios. They came up with a three minute visual extravaganza to give the stand visitors an amazing virtual 'trip' in the new car.

## The product

The story begins inside Toyota's R&D lab where the 'pilot' climbs into the prototype car (codenamed FXS) inside a holographic dome. The action then switches from the lab and follows the car from the pilot's viewpoint through a virtual world full of excitement and hazards, encountering and overcoming them all with flying colours.

The whole sequence – projected onto a 12 x 3m screen at the motor show – was designed at a 4:1 aspect ratio to give the feel of looking through the car's windscreen. The format and sheer size of the projection screen demanded that the production be carried out in HD to give a high quality result on-screen. The icing on the cake was that the whole production would be 3D stereoscopic to take the audience right into the virtual Toyota world. Viewers were supplied with polarising 3D glasses.

## The execution

The content itself is a mixture of CGI and live action, brought together at 1920 x 480 pixels to give the final 4:1 aspect ratio. 'It was effectively an HD job,' says Ambience Entertainment Head Producer, Pat Egerton. 'You can't really shoot at 4:1 – composition would be a nightmare, so by making it an HD job there was enough horizontal resolution for it to look 'schmicko' (Australian for 'good!') on a 12 x 3m screen.'

**'With each frame running at about 6MB of data, though, we faced a daunting prospect in actually putting the job together,' Egerton continues. 'That's where iQ came in – it's got the grunt to handle HD in realtime – we'd have been pretty dead in the water without it.'**

iQ acted as the centrepiece of the production effort where individual elements were brought together as they were completed, and dropped into the animatic previsualisation timeline on the iQ edit desk. Thanks to iQ's Resolution Co-existence™, mixing HD video freely with computer file format CGI imagery was a simple task. 'It meant we could easily review the job at any moment at full resolution, to check the look and quality. Basically iQ did an assemble edit job for us – a sort of visual compiler. Being able to see the whole job together at full quality also enabled us to do some finessing to individual shots while ensuring a consistent grade across the entire piece. Without iQ our only speedy way to view the whole edit was by rendering MPEG2 clips at NTSC resolution. While this was perfect for sending to Japan for approvals, it was obviously not ideal when trying to assess a job that will ultimately appear on a 12m screen!' says Egerton.

## And now in stereo...

The iQ also came into its own in the stereoscopic production process. Some of the scenes were rendered in-house at Ambience Entertainment as left and right eye – ie. the same scene rendered twice with the camera offset. Others were sent to DDD in Perth who used the Z-Depth matte to create left and right eye feeds. As the results came back from DDD they were imported into iQ as a background process from a file server. Assembly work was able to begin as soon as the files started arriving, dropping them into the visualisation timeline at the appropriate point and instantly reviewing the result.

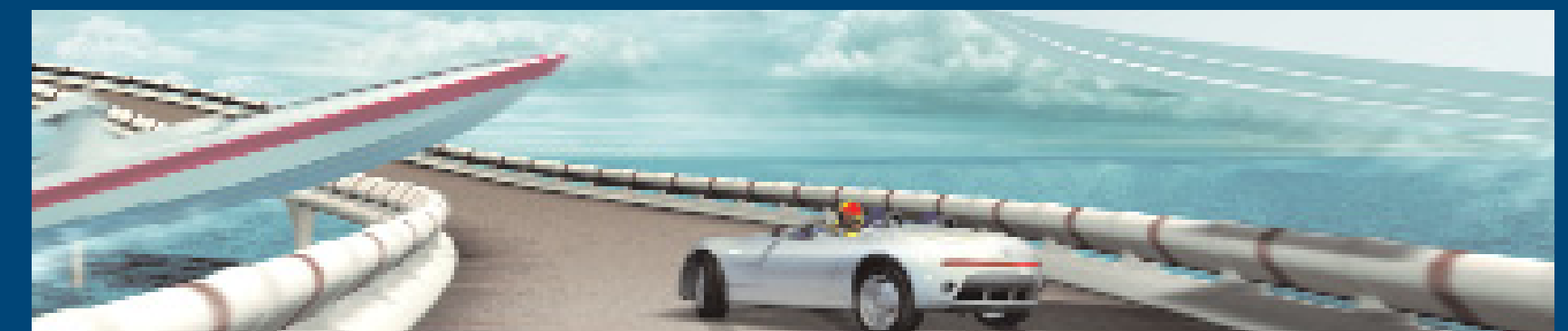
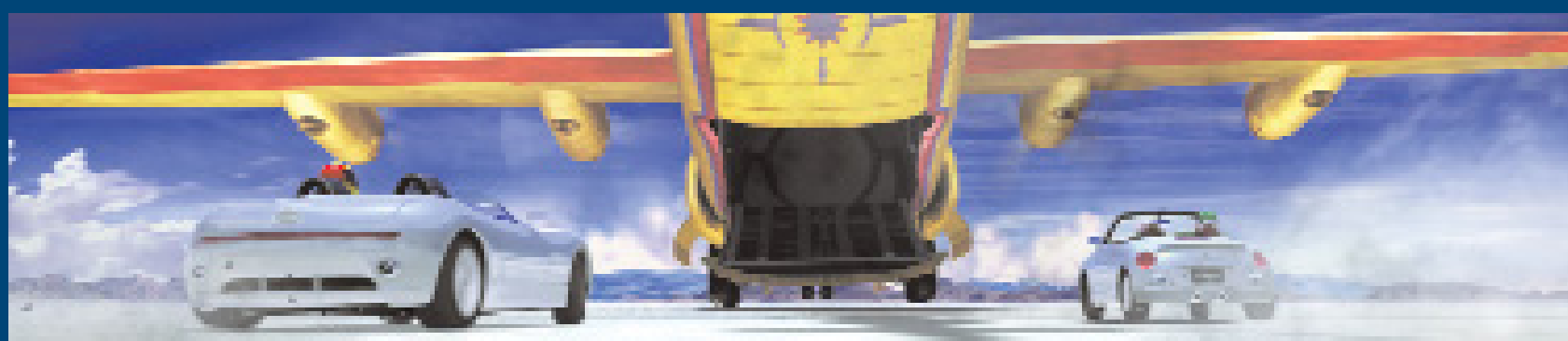
After final assembly had been completed for both left and right eye views, each was individually colour corrected on iQ, and then compiled together on iQ to check for synchronisation. In order to create a back-up dub on HDCAM, each 1920 x 480 sequence was composited over 1920 x 1080 black (this also allows viewing on a standard HD monitor). The finished piece was delivered to Japan as 1920 x 480 data on AIT2 tape (at 30 fps). In all cases, iQ was able to handle the conversion of material to the required format at output, on-the-fly.

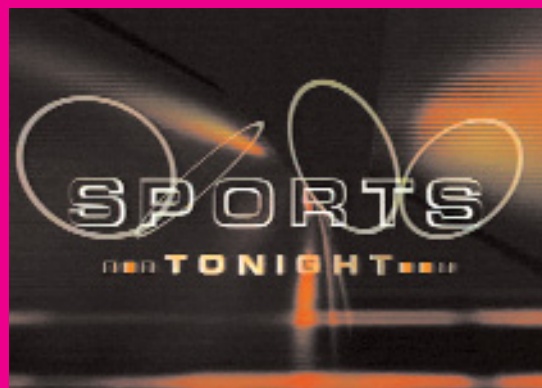
## The result

'A complex job like this is all about workflow just as much as creativity,' says Pat Egerton. 'iQ made it easy to assemble and view the material in all its various formats as the project came together. This is something that we would have seriously struggled to do any other way, especially given the very short timescale in which we had to work. It also made the whole approval process much more streamlined, both in-house and remotely. Reviewing the job at full resolution and being able to go instantly to any point in the timeline is a must for this kind of production. And even part way through post production it was no problem to offload some sequences and send these to Japan for projection testing. This could be done using the actual equipment destined for the Toyota stand at the Motor Show – a DVS disk recorder and 12,000 lumen Panasonic 9600 projectors. It all added enormously to client confidence.'

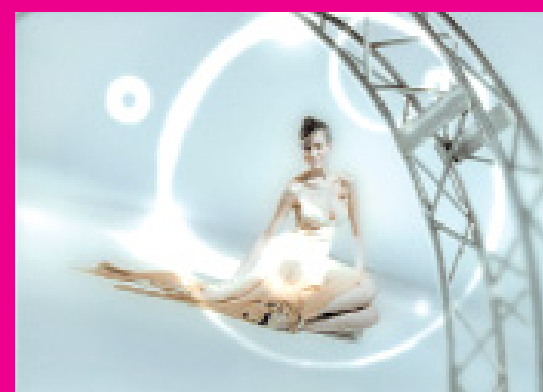
**'iQ helped to make this complex project manageable. It has great potential – it's got the grunt, it's stable and Quantel provides first class support too – but it's iQ's speed that sets it apart.'**

This article first appeared in IBE magazine.

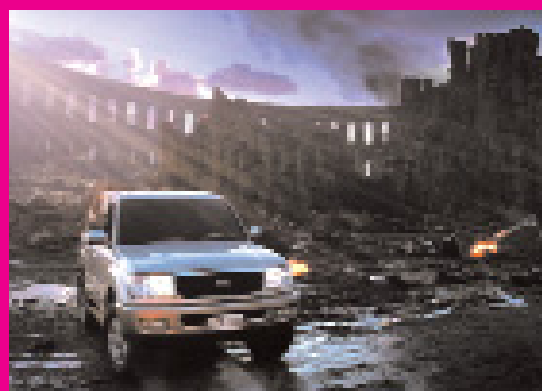




Asian winner Sumanto Roy, New Delhi Television, 'Sports Tonight' virtual set.



South American winner Armando Ortiz Pascal, Digit Post, Once TV channel branding.



Australian winner Anthony Fassilis, Videolab, Saatchi and Saatchi, Toyota Ad.



European winner Menelik, Chinatown, Avtoma.

The 2001/2002 Quantel Artist of the Year competition has now been judged in every region but North America - that announcement comes in June at the Promax/BDA Global Conference in Los Angeles, when the overall winner of the competition will also be announced.

Sumanto Roy from NDTV (New Delhi Television) is the 2001 Quantel Asian Artist of the Year. His entry, a specially designed virtual set for NDTV's 'Sports Tonight' programme, successfully fended off stiff competition from sixty other entries.

Different backgrounds were created to provide variety while keeping to the corporate feel of the Star News programme. Working with Paintbox FX, Roy took elements from the existing Star News design, and then added new elements, including new colour combinations and movements to portray a fast paced sports programme.

Meanwhile down Mexico way, Armando Ortiz Pascal took the prize in the Latin American leg of the competition. Working on Henry Infinity, Armando of Digit Post in Mexico City, produced three 16-second channel branding slots for Instituto Politecnico Nacional's new Once TV ID using a 'model playing with energy and light'.

And down under, Anthony Fassilis, formerly of Videolab in Artarmon, NSW and now senior Henry artist at Animal Logic, took the Australia/New Zealand regional title for his work for Saatchi and Saatchi, Sydney on a commercial for Toyota.

Toyota Landcruiser - Battle the Elements, a 60-second cinematic epic, showed remarkably believable lightning and fireballs emanating from a ferocious cloud. The explosions, smoke, fire and water were composited in Henry.

The European winner is Guiseppe Viggiano also known as Menelik. His piece called Avtoma was created on the Editbox for Chinatown in Milan Italy. Combining an eloquent mix between graphics and subtle editing, this experimental piece with its ecological theme positioned the programme with thought provoking text.

# Everyone's a winner

# Playing to win

Around the world TV channels are proliferating so the fight is on to establish and sustain market share. For some, with deep pockets, the answer may be to invest fortunes in rights to sports events, movies or back-catalogue shows. For others, the key to survival may be mass-appeal programming which is both economical to produce and which draws on imaginative sources of funding.

**The idea**  
The Italian game show 'Call Game' is broadcast on Italy's seventh TV network, La 7. The show has established cult status in only a few months and is broadcast for up to six hours, every single day. The concept, developed by Endemol Entertainment in the Netherlands, is simple but appeals to some primary human instincts: our desire to make money; our competitive instincts and for some at least, the desire to achieve a few moments of fame.

The show is entirely live; contestants are required to call in by telephone and solve some simple puzzles to win cash prizes - typically up to £500. Extra excitement is injected through the element of chance; those who pass the first stage are asked to choose from some random symbols on the screen - the right selections might double or triple their prize.

The production is visually appealing, with vivacious presenters, a colourful set and bright, computer-generated graphics. All of these help to attract thousands of would-be contestants every day. This is the essential ingredient in the business plan, because it is these hopeful callers who fund the show by paying 1 Euro (~\$1) every time they call.

**The production**  
Aran Endemol (the Italian company of Endemol Entertainment) handed the task of making 'Call Game' to Marco Cunsolo of Sermi Films, a long established film and TV production company based in Rome. Cunsolo was very aware of the problems facing anyone trying to produce six hours of live television every day on a tight budget: the technology would need to be powerful, reliable and easy to operate. After evaluating a number of options, he chose Quantel's Clipbox Studio.

With broadcasts for extended periods in the middle of the night and early in the morning, reliability is a key issue: "The reliability of Clipbox Studio means I can sleep at night," says Cunsolo with a smile. Ease of use is also important: the production team comprises many college students trying to earn some extra cash and the intuitive, PC-based Studio FX control panel can be mastered in an hour or two.

**The system**  
The show revolves around six highly colourful sets, each dedicated to a range of games and covered by three or four lightweight cameras. The Clipbox Studio is used for a range of effects: it plays moving backgrounds which are chroma-keyed over the presenters, break bumpers, stings and other short graphic composites. The ability to key moving images over moving backgrounds and play the complete shot out of a single port is important because it reduces the requirement for effects banks on the studio switcher and it reduces the stress on the operator. In extended live broadcasts it's important to keep the pressure off the humans wherever possible. Clipbox Studio can 'pre-learn' complex effects and play out complex shots or sequences at a single key-stroke.

The games themselves are played out live by a dedicated operator from the PC; the video is combined in the switcher with the Clipbox shots and the live action. As in any broadcast studio there is a dedicated sound control room, where the audio supervisor and an assistant have to juggle with the presenter's microphones, audio jingles from the Clipbox and, of course, the contestants calling in by telephone.

**The recipe for success**  
This is a self-funding show, running an interesting business plan. Contestants calling the show's premium-rate number are first played a recorded message explaining the rules of the game. They are then permitted to hang-up and incur no charges, or stay on the line and have 1 Euro added to their phone bill.

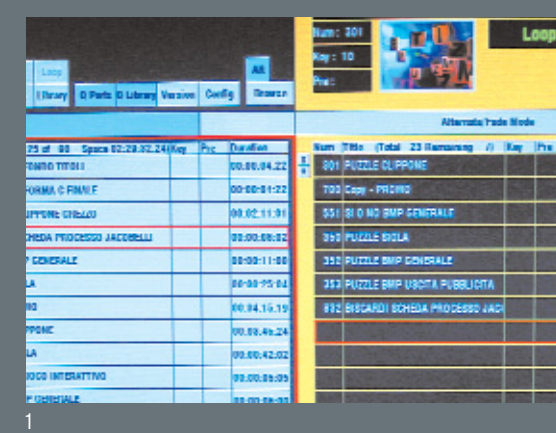
The show has quickly established a niche for itself with the Italian public and has achieved thousands of callers in a single day, each paying their 1 Euro for the privilege of participating in this novel show. It doesn't take a mathematical genius to work out what an excellent business proposition this show presents - a simple idea, well executed with a very visible revenue stream - and making a novel use of technology to keep costs low. A perfect recipe for success!

1 The Clipbox Studio FX control is highly intuitive - easily learnt, and confidently used under live broadcast pressure.

2 The on-air gallery, with its integrated Clipbox Studio FX control. Games are played out live from the PC (top right); this is combined in the switcher with the Clipbox output and the live action.

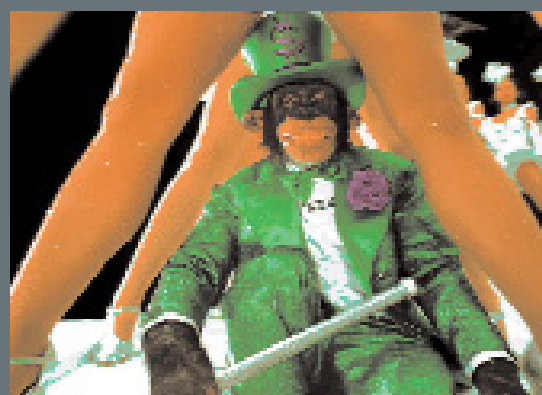
3 Marco Cunsolo of Sermi Films in front of his Clipbox Studio FX control panel.

Quantel Artist of the Year



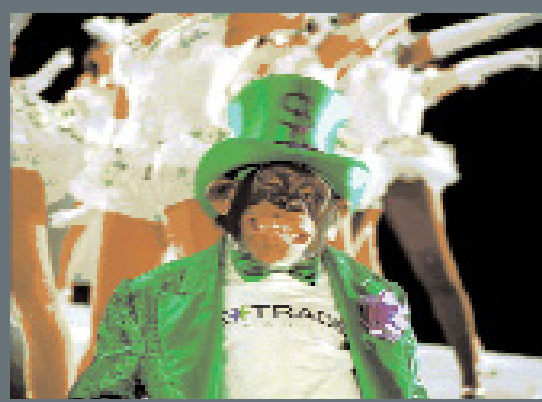
# There's no business like monkey business

With more than 80 million people tuning in to this year's Super Bowl, where the football game is so much window dressing for the main event – TV commercials – the pressure could not be greater to deliver a definitive killer spot.



No stranger to these kinds of challenges, Jerry Steele, visual effects artist and co-founder of Steele VFX, Santa Monica, was sitting comfortably in the hot seat. He was sitting in front of his Henry Infinity with a little more than a week before the game and a one-minute spot to finish for Goodby, Silverstein & Partners.

Not just any ad, Jerry and executive producer and co-founder Jo Steele once again landed the E\*Trade spot, this time to re-launch the company from a dotcom to a full service firm that does out financial advice, banking services as well as online trading. Steele VFX turned in last year's E\*Trade spot that was deemed the most popular commercial of the game. With airtime this year selling for nearly \$2 million per:30 seconds, and the main character being a monkey, Jerry's work was cutout for him.



"We have become so familiar with the Henry and the speed in which it works, we were able to bid the job at nearly a third of the time that our competitors could have probably done it for," said Jerry. 'Henry's speed played a major role in our getting the E\*Trade job again. In fact, we spent about a 130 hours on the spot. It was a really involved commercial.'

If you haven't seen the completed spot, and to understand the true meaning of what it involved, it is worth checking out [www.usatoday.com/money/advertising/sb02/ad-meter-thumbs.htm](http://www.usatoday.com/money/advertising/sb02/ad-meter-thumbs.htm) and clicking on the E\*Trade box for a look. You will immediately realize that the entire spot is a visual effect made to look seamlessly and effortlessly real.



The commercial is a parody of a Busby Berkeley musical/dance extravaganza whereby the E\*Trade monkey gets fired the next day by the new CEO of E\*Trade Financial for poor performance in promoting the company's name change. Cut to the monkey being rocketed to the moon, space ship, space suit – the whole nine-yards.

'The biggest challenge was getting rid of the cables,' said Jerry, in scenes where the monkey flies across the screen. 'There were about a dozen shots with these huge 2' cables travelling through the shot and obscuring girls faces, dresses and the backdrop. A huge part of the job entailed reconstructing all of the girls and the backgrounds before they could be placed back into the shot.'



Another equally complicated shot involved the monkey at the beginning of the commercial where he slides down a ramp in the shape of a dollar sign and then stands up to join the dancing girls.

Unfortunately, the first take was unusable so Jerry and Steele VFX's other Henry artist Dave Neuburger worked together on replacing the monkey with a monkey from a different take by tracking the second to the first. According to Jerry the finished shot comprised approximately 100 history layers and was all built in one infinite superlayer. 'We really put the Henry through its paces on this spot,' concluded Jerry.

## iQ supports Panasonic HD camcorder

iQ now supports the Panasonic AJ-HDC27v Variable Frame Rate High Definition camcorder. The Panasonic variable frame rate camcorder brings film's under- or over-crank flexibility to video acquisition and iQ now adds the same flexibility into post production.

Tapes from the variable frame rate HD camcorder are loaded into iQ to produce slow or fast motion 24 fps clips, just as would happen with the traditional film process. iQ makes full use of the information from the camcorder and speed changes are handled

automatically. iQ's unique resolution co-existence allows the 720p clips from the camcorder to be used in HD or SD projects without any pre-processing.

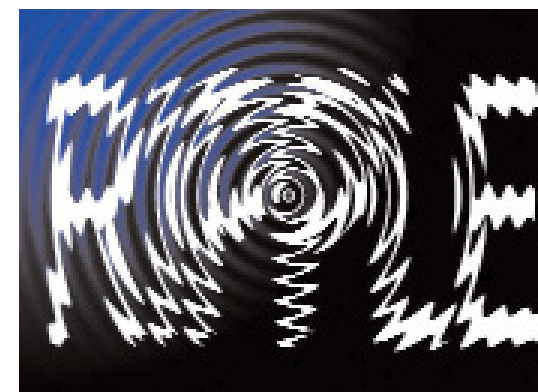
Quantel marketing director Nigel Turner comments: "Quantel is all about innovation and we recognised instantly that the Panasonic 27V camcorder brought something new to the video world. We know our post customers want to work with tapes from the variable frame rate camera and the flexibility of iQ now allows them to deliver that capability."

Michael Brinkman, director, strategic development, Panasonic Broadcast, adds: "iQ is unlike any other system; not only does it handle everything automatically, it also allows material from the variable frame rate camcorder to be used in projects of any format. In post, it beautifully complements the flexibility that the Panasonic variable frame rate camcorder delivers in acquisition."

iQ's unique purpose-built, open-programmable hardware and software architecture allowed the necessary changes to the video processing to

be made in software without costly hardware modifications.

Variable frame rate camcorder support is standard with every iQ system and is available now.



## New plug-ins for generationQ

Exciting new plug-ins – both home-grown and third-party – have been developed for generationQ products. Video Design Software (VDS), is releasing Synapse, a plug-in product which supports After Effects plug-ins within the Quantel user interface, and Quantel engineers have developed a new suite of effects plug-ins which brings together a range of transitions and effects in a single package.

VDS is a leading developer of broadcast automation software and the Liberty paint and animation product line. VDS' Synapse offers the Quantel operator direct, interactive use of any of the 56 supported Boris After Effects production-oriented plug-ins. These include fast blurs, true optical colour correction, displacement mapping

and customizable natural effects. No other set of filters available provides as useful and unique a combination of effects.

In addition, the Synapse package also includes Boris CONTINUUM, adding powerful and flexible compositing features for motion graphic artists. Continuum's time filters are easy to use, and render quickly with superior results. In addition, the natural effects and advanced particle systems have been improved for maximum usage.

'Quantel has redefined the industry standard with the iQ product and its new graphics product line,' said D R Worthington, director of marketing and product manager for Liberty. 'VDS is happy to be on board as the first developer to interface plug-in effects with the iQ, eQ and gQ

platforms. The opportunity to work with Quantel opens the doors to the thousands of post production companies, television broadcast stations and film F/X studios interested in expanding iQ's and the new range's capabilities.'

Synapse will be available for shipment from VDS at NAB. Additional plug-in bundles will be added to the Synapse line over the course of 2002.

The home-grown suite of plug-ins includes a total of 17 effects and transitions: Bubble, Pack, Bulge, Burn, Tunnel, Lens, Cone, Magic Crystal, Water Distortion, Kaleidoscope, Blur, Lens Flare, Nova, Mosaic, Ripple, Wave, Crash Zoom, Directional Blur, Wind, Whirl Pinch, Glass, Tile, Trail and Dissolve. Sensible defaults mean that straightforward

effects and transitions to be quickly set up and executed, while comprehensive parameter controls are also available for precision tweaking and execution. Full details of each effect can be found on the Quantel website at [www.quantel.com/plugins](http://www.quantel.com/plugins)

The new plug-ins join an array of third party plug-ins and programs already available, including Primatte and Ultimatte keyers, the Inscribe character generator and Miranda video tools.

## Seriously fast data transfer for iQ

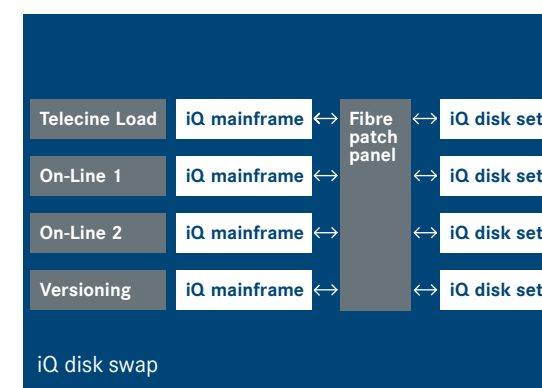
HD and 2K material demand the kinds of disk storage capacities that were undreamt of even five years ago – but are now a practical proposition with iQ.

iQ can offer up to seven terabytes of resolution co-existent, online disk storage – equivalent to a

massive six hours of 10 bit, 2K RGB material. But even with current high-speed networking technologies such as Fibre Channel and Hippi, such a vast quantity of data makes for relatively slow transfers – for instance, 90 minutes of 2K would take approximately six hours

to transfer. Not between two or more iQ-based systems though. Quantel has introduced a 'Disk Swap' option which allows the disks from one system simply to be re-patched to another in moments. For the larger facility operating a number of telecine, online and versioning suites,

this capability will be a massive time-saver, and also offers the possibility of configuring one of the systems purely as a 'Load/Unload Station', allowing the front-line iQ's to carry on uninterrupted with client attended or close-deadline sessions.



Carrier	1.75TB (90mins 2k)	3.5TB (3 hours 2k)
Hippi	6 hours	12 hours
Fibre Channel	6 hours	12 hours
100 base T	6 hours	4 days

iQ disk swap

Typical data transfer rates without disk swap

## Quantel demonstrates broadcast quality video transfer via the Internet

The ability to share content across a number of remote TV Stations has enormous potential benefits for broadcasters. For example, 'Centres of Excellence' become practical propositions – offering centralised production of generic graphics, say, for a station group – with the ability to send those graphics over low cost communication routes to remote sites. This offers the broadcaster considerable scope for streamlining news production, particularly across multiple sites – and any broadcaster will quickly add to this list.

With this in mind, Quantel has recently demonstrated the transfer of broadcast quality video between two continents – using standard IT infrastructure, and with minimal costs. At either end of the 5,000+ mile connection (Los Angeles and Newbury, in fact) was a Quantel server. The connection used was Quantel's internal VPN (Virtual Private Network) – normally used for the exchange of internal company business communications. Transfer speed is clearly entirely

dependant upon available bandwidth. In this demonstration a rate of around one minute per one second of material was achieved – sufficient to make such remote networking a practical proposition for short animated sequences, for example.

There is no quality loss because the media is transferred as a file, not video. The remote device need not be a Quantel system – the same transfer could be effected between a remote PC and a Quantel server. Whatever the equipment used, for any business that already has an existing connection, there may be no marginal cost. Transfers between sites with no wide-band connections are also clearly possible – for example, between a television studio and a private address – where many freelance graphic artists work.

The demonstration went further than just the transfer of material – the server at the Newbury end was unattended. The operator in Los Angeles was able to see inside the Newbury server, select

the desired clip and initiate the transfer entirely independently. Furthermore, since the transmission and reception of data via a Quantel system's Clipnet connection is a background task, normal operation is not impaired or prevented during the process.

Once received at the remote site, the internal processing capability of the Quantel server can be used to key locally shot footage over the centrally produced material. In this way, a station group can easily manage a house style across multiple outlets but with the flexibility to add local input for audience appeal.

## Realtime 2K colour correction with Pandora and da vinci

Until now, colour grading of film material has been a laborious, iterative and time-consuming process – far from ideal for directors and colourists. With the introduction of iQ, there is now for the first time a digital platform with the power and resolution to handle film electronically. This potentially offers enormous benefits to directors, DoP's and colourists, enabling them to make decisions interactively and to review the results in context. Quantel has collaborated with Pandora and da vinci to unlock this potential and deliver integrated systems capable of non-

linear, realtime colour correction at 24fps with 2K (2048 x 1556), 10 bit RGB imagery at full resolution when interfaced with the iQ media platform.

The iQ media platform provides the bandwidth and processing muscle to supply 24fps 2K material in realtime to the colour correction system, and to record the corrected result back onto disk. Pre-sizing allows multiple resolution clips to be handled, while post-sizing enables re-framing without destroying colour corrector set-ups, all carried out as a realtime process in iQ concurrently with the

colour correction. The interface to Pandora is patchable 2.5Gb/sec fibre, designed by Quantel, but open to all. The da vinci interface is HSDL. The interfaces are multi-resolution, so are equally at home with HD or SD, and are open to any third party device capable of handling 300 MB/s.

No other system in the world offers realtime colour correction operation with 2K material, allowing directors and colourists to benefit fully from the potential advantages of the digital intermediate for the first time.

## ITK Millenium Machine 2K transfers

The ITK Millennium Machine telecine has a novel means of transferring 2K pictures at 15fps over 30fps HD SDI. It achieves this by subdividing each 2K frame and rearranging the pieces from a single 2K frame to fit into two 1920 HD video frames. This enables 2K to be recorded onto conventional, unmodified HD VTRs.

Of course the reverse process is required in a post production system to reassemble the resultant HD video back into 2K frames. iQ's multi-resolution capability makes it a perfect place to do this, as does its unrivalled ability to handle 2K jobs quicker than most systems manage SD. Quantel has, therefore, developed and released a plug-in for iQ

that rebuilds 2K images from material stored on HD tape in this format – yet another example of the benefits of Quantel's unique combination of open connectivity with its dedicated superfast image processing hardware.



## iQ and Eyes make good HD sense

Having become the first in Canada to install the Quantel iQ, Toronto-based Eyes Post Group has wasted little time integrating the system into its daily creative workflow. In fact, as expected, the iQ has opened up new avenues for the company to take up high-end jobs and made possible the ability to economically and productively deliver high definition and theatrical shows in record time.

Fresh on the heels of the Winter Olympics where curling received its share of television coverage, Eyes Post recently completed the movie trailer for the March 8th release of 'Men With Brooms', the Canadian romantic, comedy drama starring Leslie Nielsen. Shot on film and transferred as 2K files to the iQ, output to hard disk and transferred back to film, the trailer has been making the rounds on the

front end of 'Lord of The Rings' throughout Canada. 'We turned around this trailer in three days working with the 2K material all in realtime,' said Eyes Post iQ senior editor, Frank Biasi. 'There's no wait time for the drives to catch up or displays to catch up. The iQ has allowed us to do high-level tasks much quicker than ever before and it's faster than any other HD system.'

Since October the iQ has been working full-tilt day in and day out. In addition to the recent movie trailer, Eyes completed work on a movie of the week for Alliance Atlantis 'Jennifer' in late fall. The movie was shot on film, transferred to HD and then onlined on the iQ.

Biasi and team are also in the process of editing 16 HD episodes of the 'Nero Wolfe Mysteries' for A&E on the iQ. 'The speed is a huge benefit to us on



shows like this,' says Biasi. 'In fact, you forget how fast it works in HD considering how blown away you are by the speed when you first start using the system. You can do two or three layers of HD on the iQ and scrub along the timeline as if it were all an analogue digital Beta Cam signal.'

He is also quick to proclaim the ease with which he transitioned from working in a traditional digital online suite to the iQ. 'There was no hard learning curve or difficult adjustments for me and that is significant considering that I had never worked on a non-linear system before the iQ,' said Biasi. 'What's more, the ability to mix resolutions or what Quantel calls 'Resolution Co-existence' is truly wonderful in the fact that I can work with virtually any format of material without a care in the world.



## iQ for DIGI-GUYS

Digi-Guys have ordered an iQ media platform from Quantel as the centre-piece of their new digital media facility at Pinewood, in the heart of the UK's film industry. With their roots in CGI, computer games development and broadcast, Digi-Guys are setting out to create a new breed of company that will fully exploit the potential of its digital content creativity.

'We're building a new style of digital media company - one that will create content for both the big screen and computer games simultaneously - the game of the movie, and the movie of the game!' said Digi-Guys Creative Director, Andy Whitehurst. 'This is the first time that something like this has been attempted - but with iQ, the technology base is there to do it now - just plug it in and away you go - you'll need some content, of course!'

The iQ will sit at the heart of the facility, acting as both the workflow hub for CGI workstations, Digital Audio sound studio and as the 2K/HD/24p finishing suite. 'iQ's ability to work with multiple resolutions is key,' Whitehurst continued.

'We are developing games for the Nintendo GameCube, which is one of the first games consoles to output true HD (480) signals alongside SD. We will create all our material at full digital film quality 2K and use the iQ as the central image store for the CGI outstations. After finishing on the iQ, we can then down-res on-the-fly to 720 or 480 for the GameCube while keeping the pristine 2K for the movie.'

Digi-Guys have a clear vision of the digital future. 'Television, movies, computers and games are no longer separate entities - they are all overlapping parts of a bigger entertainment picture,' concludes Whitehurst. 'The digital content creation technologies that support them are also increasingly merging, and the iQ is the breakthrough that will bring them all together. This technology is cutting edge now, but soon we'll find it hard to believe we ever lived without it, especially as 24P becomes the de-facto industry finishing standard across all production environments - be they film, broadcast or FMV for games.'

# Customer news

## WFAA Dallas adds creative muscle with Clipbox Studio

ABC affiliate WFAA, Channel 8, in Dallas, TX has acquired the Quantel Clipbox Studio to add to its arsenal of Quantel news production tools, providing its creative and technical news staff unlimited story-telling capabilities when it comes to enhancing live news presentations at reduced costs.

Built to be scalable in virtually any news production setting, the Clipbox Studio can produce an entire live broadcast with one operator or serve in a variety of capacities such as a play-out device or a storage device for news material to be played out later.

According to Don Hazen, WFAA Post Facility Manager, the Clipbox Studio removes the current limitations to producing 'cutting edge' live news shows. 'The Clipbox Studio has more

capabilities than we can think of how to use right now,' said Mr Hazen. 'It will permit us to have more control of graphic elements in our newscast and allow us to react faster when breaking news happens.'

Another barrier-breaking benefit to WFAA is the ability to build an unlimited stack of clips to roll at any time during the newscast. 'In a typical day we may run 50 graphic element clips,' said Mr Hazen. 'This is all the

opens, the bumpers, the stings, and transitions. Then when breaking news happens we'll be able to have our Henry or Hal create last minute packaging and through Cliplink put it right into the Clipbox Studio without any interface from our TD/AD's. This will allow us to freshen elements of a pre-built switcher timeline.'

Clipbox Studio's speed, flexibility, and compact power give merit to its 'studio-in-a-box' moniker. And, according to WFAA, the future looks bright for the Dallas news leader. 'The Clipbox Studio will take us to the next level in our market and I don't believe anybody will be able to do what we'll be doing with this combination of Clipbox Studio and our Grass Valley 4000 switcher.'



## iQ for Reala

Film-maker Marcus Dillstone, recently used iQ on a promotional demo short for Fujifilm's new Reala 500D negative film. The Glow, an eight minute film shot in in Hastings and Herstonceaux Castle in the UK, is an unusual story about a young boy, an elderly eccentric collector of electric light bulbs and a very special delivery.

It shows almost every possible lighting situation in twenty one different set-ups.

The film was shot in both 35mm and 16 mm then matched, repaired, compiled and versioned on iQ - output in HD, NTSC and PAL in both 16:9 and 4:3.

## eQ catches imagination of North American post

Grace & Wild of Detroit and Sundog Films of Toronto have become the first facilities in North America to acquire eQs.

Emerging from the same technology as the iQ, eQ's ability to handle any resolution of HD and the work-flow efficiencies and speed with which it manages SD has customers making a confident decision to buy.

'The eQ fills a niche that we have and it's something we were looking for that ties our other systems together,' said Wayne Trickett, President of Sundog Films. Trickett has a track record of recognising niches and trends. Fifteen years ago he became the first in Canada to purchase the revolutionary Quantel Henry and purchased an Editbox three years ago. eQ's flexibility and speed greatly influenced his decision to purchase Quantel's newest product this time around.

'We do a mixed bag of work here whereby we do an HD television series and D1 series, we do movies of the week, commercials and music videos,' said Trickett. 'Since our work flow is

always changing, it's nice to get a piece of equipment that we can mix and match and not have to partition drives or go through the different conversion hassles you have to do on other systems to handle the different resolutions that come in.'

Like Sundog, Grace & Wild jumped at the eQ for its mixed media capabilities and scalability. Sr. Vice President of Technology, Keith Neff, said that his company's long relationship with Quantel also made the purchase of the eQ a comfortable one. In fact, Neff purchased one of the first Quantel Paintboxes in the US and went on to buy a Henry and three Editboxes.

'We've come to rely on Quantel products and feel that they offer a lot of value for our clients,' said Neff. 'Initially we are going to use the eQ in a standard editing capacity which probably means standard definition for the near-term. We see an increasing demand coming for HD in the spot world and we believe we are well positioned for that business with the eQ.'

## Sci-fi Henry

The unrivaled track record of Henry Infinity continues with Australian VFX Company, Animal Logic's work on the hit sci-fi series, Farscape. Officially renewed for its fourth season, Farscape is now the longest-running original series to be aired in the history of the Sci-Fi cable channel. With its numerous awards, huge fan-base, its own magazine, and hundreds of fan Web sites, Farscape's success can be directly attributed to its spectacular visual effects, innovative approach to established Science Fiction principles and its exceptionally imaginative alien characters and sets.

The show follows the exploits of Cmdr. John Crichton, space scientist and pilot who took off in episode one on an experimental mission. Crichton's ambition was to travel 'at previously unrecorded speeds' but things got a little out of control and soon he was going so fast that he was sucked into a swirling, gaseous vortex, a kind of blue hole in the very outer reaches of the universe. Indisputably lost in space, we follow Crichton's quest

to comprehend and survive the new worlds and creatures he encounters.

The series is full of inventions and creative flourishes that are all its own making, much of which are skillfully created by the Animal Logic team, two of whom include Quantel compositors, Anthony Fassillis and Kent Smith. Both compositors come from a design background. Anthony started his career as a Paintbox artist in 1988 and has been working on Henry since 1993 for a host of TVC and television projects. Kent's background is in broadcast design, including opening titles and logos for TVCs. Both artists were also finalists in the international 'Quantel Artist of the Year' Award (part of the PROMAX & BDA Event); Anthony for his work on Toyota and Kent with an Olympic piece for Network Seven.

Farscape certainly keeps the pair busy. With 40-50 visual effects shots per episode in series 3, 22 episodes per season, and approximately seven working days between

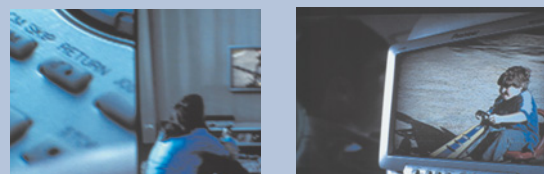
deadlines, the Farscape team maintains a crazy workload - especially when you consider that two to three episodes are in production simultaneously. In fact, in the year that Animal Logic has worked on Farscape series 3, a staggering 1109 effects have been created for the series with the help of Quantel's Henry Infinity.

The pressure to keep images and effects fresh is constant, and Kent Smith says, 'since being recognised with the Quantel Artist of the year award in 2001, opportunities like Farscape have complemented my broadcast design background and allowed me to meld my design experience with the challenging aspects of longform television'. Fassillis adds: 'the scope for creativity is what drew me to the project. On Farscape you can do almost anything; everything's possible within the genre. The challenge is to make it believable.'

## April launch at RTP

Portuguese public broadcaster, Radio Televisao Portuguesa (RTP), began broadcasting with its new inspiration, integrated news and sport production system, in April. Inspiration covers all the needs for news production, from acquisition and managing to journalist editing and broadcast automation. The heart of the system is two Clipbox Power servers with embedded editing, five Clipbox Studio production servers, and eight Edit Seats, while the newsroom system will be ENPS. OmniBus is providing the automation systems, control and browsing capabilities for journalists. The system will also support other services offered by RTP

such as RTP1, RTP2, RTP International, and RTP broadcasting for Africa (RTP Africa). Through the MOS protocol the system interfaces with other systems already installed at RTP, such as the iNews Newsroom Computer System. It also interacts with the more than 50 other different units from Quantel already in operation at RTP.



## Are we there yet?

The Finish Line in Santa Monica recently provided Henry visual effects and final conform to Filmcore, SF for a Pioneer spot created by BBDO West, San Francisco and directed by Gary McKendry of Go Films.

The Finish Line's visual effects team, led by Paul Song, worked on a :30 and :60 version of 'The Long Drive', which features a worried dad about to set off on a long car journey with two boisterous children. His wife, on the other hand, isn't the slightest bit worried as she's creating a DVD for the kids to watch in the car which combines car racing footage off the air with home movies of the kids in toy cars.

'Technically almost every shot had some form of tracking,' says Paul Song. 'We composited the elements in the TV monitors, executed the transitions and added a textural look.'

The Finish Line has recently taken a journey of its own, expanding the business to open a new facility in Orange County. The Costa Mesa location will offer the first Henry Infinity in the county plus a complete range of services, primarily for the commercials market.

## Olympic prize for Seven

Australia's Channel Seven design department (Seven Design) has won the award for 'Best Opening Titles Sequence' at this year's Australian Effects and Animation Festival. The winning entry was for their work on the Salt Lake City 2002 Winter Olympic Games.

Held at the Sydney Convention Centre in Darling Harbour the seventh annual awards night was part of a three day festival celebrating the best in visual effects and animation from around the world including major releases such as: Harry Potter, Lord of the Rings, Shrek, Monsters Inc and Moulin Rouge.

Entries were judged by an expert panel consisting of representatives from Australia, USA, UK and New Zealand. Network head of design Chris Cross pointed out that the Seven Network showed a strong

presence at the awards. 'Of twenty international finalists screened in the category of Titles, Idents and Stings, five were from the Seven Network and three of these five nominees were submitted by Seven Design - Sydney.'

Utilising Hal and Henry Infinity, the winning entry - 'The Salt Lake 2002 opener' consisted of live action shot on 35mm in two locations. One of these locations was Mount Hotham in August 2001, however the majority of the images within the opening sequence were specially filmed in a blacked-out ice rink and also within the Channel seven studios in Sydney.

Design director Tony Pepe explained: 'The complex ice environments were generated by combining elements provided by Maya and pre-filmed textures. These environments were hand-tracked with extensive

particle replacement and caustics. 3D ice and snow particles were then animated and fixed to these motion paths and lens parameters making for a complex, yet highly effective visual result.'

The entire sequence was composited using editing, visual effects and finishing tools from Hal and Henry Infinity, with the light distortion effects generated using Sapphire and 5D Sparks. Audio design was used to enhance the sense of scale in the environment.

Quantel was also the power behind the Olympic graphics for NBC. Nine NBC editors worked around the clock on two Editboxes, Henry and Hal to create teasers and bumpers during the two and a half week games. Stills were produced on Paintbox. All the graphics were then put into Clipbox where they were edited ready for play-out.





## Focus on the Future

Quantel recently hosted two days of seminars based on the theme 'Focus on the Future'. Held in the vaults of the Royal Society of Arts off the Strand in London, the success of the seminars highlights the fact that the industry is looking for luminaries to light the path toward a brighter post industry. In fact, 'Focus on the Future' was judged to be so successful that similar events are planned for later this year in the US and Germany (see [www.quantel.com](http://www.quantel.com) for further details.)

In London, 27 panellists and over 200 delegates debated how the state of the global economy is currently affecting the amount of work in Soho, but encouragingly the outlook was remarkably bright. What came across was optimism for the future and a keenness to meet the challenges of emerging technologies and workflow.

Delegates could also view the newest of Quantel's technology. This included iQ, both stand-alone and with a Pandora colour suite attached. The vaults also featured new developments on Editbox with V9 and a sneak preview of Quantel's newest technology.

A full rundown of the sessions can be seen at [www.quantel.com/rsa](http://www.quantel.com/rsa) but in brief here's how the programme looked.

- Introduction to HD - Andy King, technology development manager at BBC Resources in Bristol, outlined some of the issues with high definition production.

- Commercial or Promo - One of the most visually compelling of all the seminars, BSKyB really put on a show about how their 120-strong in-house production team produce quality promos that have the professionalism of a commercial.

- Technology Forum - Anatomy of an HD production - Mike Bassett: England Manager HD versus film - Director Steve Barron wanted a very documentary-style look to his movie and chose HD for its convenience. Milan Krsljanin, senior marketing manager, Sony, Dave Huckfield, strategy manager at Panasonic, Max Horton, senior colourist at MPC London (where the 120 effects shots for the movie were posted and Quantel's iQ was used for the digital grade), Sibylle Maier from Arri Laser and Mark Horton, market strategy manager, Quantel discussed the pros and cons of how the production was put together.

- Anatomy of a Production - Vidocq - Day 2 had a blistering start. Pascal Giroux, SFX producer and digital supervisor on Pitof's film Vidocq enthralled the audience with his in-depth analysis of this pioneering film, the first fully digital movie in the world. He ended with the involvement of iQ on the movie, arriving '...Like Zorro to save the day'.

- Technology Forum - Film Grading in the New World - If any session was to cause controversy, 'Film Grading in the New World' certainly provoked some interesting questions answered both on the panel and off. Gerry Vickers from da vinci, Ralph Chaloub of Pandora, award-winning colourist Luke Rainey, Bruce Everett, post production supervisor on 'Band of Brothers' and film director Marcus Dillistone formed the panel.

- The Business of Post Production - Possibly the most eagerly awaited of all the sessions, four big hitters of the industry in Europe took the opportunity to talk around the issues affecting their businesses. Panel comprised William Sargent, chief executive of FrameStore CFC, David Jeffers, managing director of the Moving Picture Company, Josko Rudas, chief executive of Rudas, Dusseldorf and Maurice Prost from Mikros Image in Paris.

- The Future for Post Production - In a wide ranging presentation Steve Owen, Quantel's business manager post production, examined where the future lies for post production and outlined Quantel's strategy for post.

- Producers Round Table - freelance director Simon Ratigan, Chris Purcell, director Discovery Europe, Brett Foraker, creative director Channel 4, Edmund James, director Discovery Network and Nicolai Amter, freelance director discussed the type of services post houses needed to provide in the future.

## NAB 2002



NAB 2002 was a landmark exhibition for Quantel, with the most extensive new product launch ever. Attendance at the show was a little down on previous years but the Quantel booth was as busy as ever as generationQ drew the crowds (which spilled into the aisles - sorry, NAB organisers) keen to see the new range.

A new stand design was also unveiled. Quite unlike any previous Quantel designs, the keynote for this year's booth was openness, with fabric, colour and lighting

creating highly attractive and distinct areas for post, graphics and news.

Quantel equipment also featured on a number of other stands around the show as part of Quantel working in partnership. These included da vinci, Pandora, Panasonic, Sony and ParkerVision.

### May

The Production Show  
Olympia, London  
21-23 May 2002

KOBA 2002  
Seoul, Korea  
23-26 May 2002

### June

Broadcast Asia  
Suntec Singapore  
Int. Convention Centre  
18-21 June 2002

Promax/BDA  
LA Convention Centre  
Los Angeles  
26-29 June 2002

### August

BIRTV 2002  
China International  
Exhibition Center, Beijing  
22-25 Aug 2002

### September

IBC 2002  
Amsterdam, The  
Netherlands  
13-17 Sept 2002

# 2002 diary