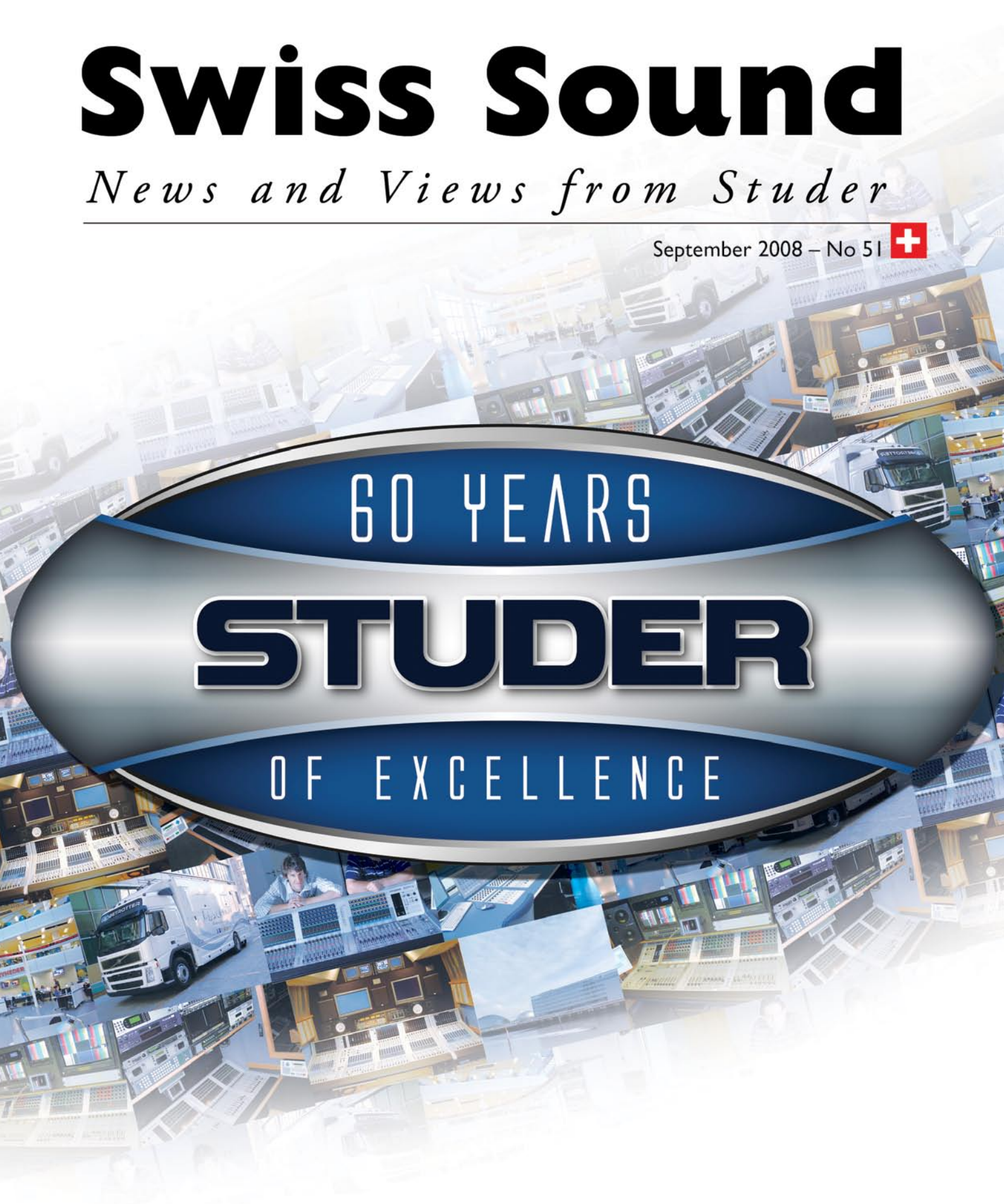
Swiss Sound

News and Views from Studer

September 2008 – No 51



Studer 60th Anniversary

Bruno Hochstrasser
EVP Sales
Soundcraft and Studer

Dear Reader

This year we celebrate Studer's '60 Years of Excellence' and I think it's a perfect time to look back on the many eventful years. I am very fortunate that I have been privileged to witness 38 years to date of the glorious history of this company and as a member of the Studer team working with great individuals including Willi Studer himself.

From products running with vacuum tubes, then transistors and now with very highly integrated circuitry with high performance processors for control and audio; it has been a very exciting experience and all this happened in a relatively short time span.

In the past most viewed us as a tape recorder company, today we are re-born as a highly successful digital mixing console, router and systems business which is especially rewarding for all of us at Studer and Harman International. May I direct my sincere thanks to all those of you who have contributed to this success, and who have supported and worked with us for so many years.

Now we are looking forward to the next 60 years of success and great relationships with you our customers. I believe the future is bright and our current and future products shall continue to generate excitement and recognition in our industry.

We continue to invest heavily in research and development which is focused on providing system solutions as well as individual products. At the recent IBC convention in Amsterdam we demonstrated how we are protecting your investment in our products by demonstrating I/O sharing across all our current platforms, so, from the very first VISTA and OnAir 3000 consoles delivered you will soon be able to equip them with this brilliant new feature-set adding even more value to your current investment.

You can read more about this soon on our web site and in the next issue of *Swiss Sound*. And incidentally, we are proud to announce that for this exciting new development, Studer received the Star 2008 TV Technology award for Superior Technology at the IBC 2008 show.

Coincidentally, I also turned 60 years of age this year so have two good reasons to celebrate! For me it is a year of change and I am happy to inform you that operational responsibility for Studer Switzerland has recently been handed over to a younger hand, Jürgen Bopst, a great individual who will continue to lead our company and I do wish Jürgen and the team much success.

I shall concentrate on developing new markets and on customer relations – an activity I especially enjoy. I am looking forward to visiting many of you in the near future and I am grateful to all of you for the many years of great cooperation and friendship.

Yours sincerely

Bruno Hochstrasser

SWISS SOUND TEAM

Editor
Keith Watson

Contributors to this issue:
Wolfgang Voigt
Axel Kern
Bruno Hochstrasser
Tibor Tamas
Gabor Soos
Dave Neal
Meinrad Lienert

Layout + Design
Oval

Please mail your letters to:
Swiss Sound
Studer Professional Audio GmbH
Althardstrasse 30
CH-8105 Regensdorf
Switzerland

e-mail
StuderMarketing@harmanpro.com

BD10.26.5990 (Ed. 092008)

In This Issue:

Dear Reader

We recently ran a vote to decide what strap line would best characterise Studer, the winner was: **Absolute Excellence.**

If we look back only a few weeks to the Beijing 2008 Olympic Games it becomes obvious why:

Our flagships, the **Vista 8**, the **Vista 5** and **OnAir 3000** consoles have been employed by a huge number of Olympic broadcasters to bring the exciting sound of the games into our homes.

Added to that, our sister company Soundcraft's Vi Series, a close cousin of the Vista family, was responsible for handling the opening and closing ceremonies and the Water Cube events amongst several other venues at the games. It makes us extremely proud to have participated in such an extremely impressive and perfectly organised event.

And as if this wasn't an exciting enough time for me to join Studer, there is even more. We have seen Studer's **Vista 5 SR** go from launch in October 2007 to global tours with Celine Dion, Billy Joel, Katie Melua and Rascal Flatts within a few months.

On top of all that, the **OnAir 2500** entered the market and set the pace in its class of Radio Broadcasting Consoles.

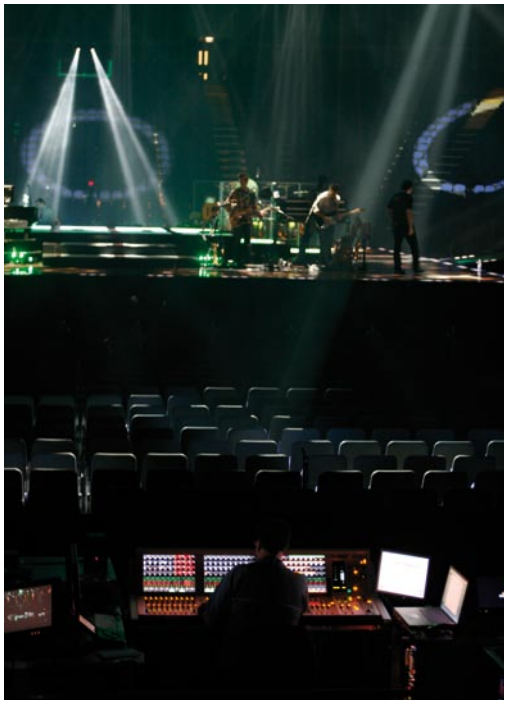
Perhaps most of all, joining a company with 60 years of excellence in sound technolgy, and with a future full of promising innovations is something very special.

Studer and the other high performance brands of Harman International are simply the place to be right now and I am glad to have the chance to work with a great team forging innovation and excellence for our customers. I am particularly delighted to be working with Bruno Hochstrasser, for whom I see the industry has such high regard. Together, we look forward to steering Studer to a great future.

Yours Sincerely,

Jürgen Bopst

Jürgen Bopst
General Manager
Studer



Happy Birthday Studer!

Studer celebrates 60th Anniversary

This year STUDER celebrates a remarkable 60 years in the pro-audio business. One of the bluest of blue-chip performers on the international broadcasting equipment stage, this resilient Swiss company has experienced more dramatic changes of identity than Madonna herself.

Willi Studer

In 1948, Studer was founded by Willi Studer to adapt American-made tape recorders to the requirements of the Swiss market. Studer soon stopped adapting and started improving, and in 1950 the first 500 units of the Dynavox tape recorders left the production line. Later, the brand became Studer in its own right.

From its beginnings as a tape recorder manufacturer, Studer went on to acquire a reputation as an analogue mixing console brand. In the late-70s, microprocessor control was used first in the famous high speed A800 multitrack tape machine and then, in the mid-80s, the turn to digital technology began with the digitally-controlled A810 analogue tape recorder, followed by the all-digital D820 and D820X tape machines. Shipping its last two analogue consoles to Japan at the start of 2008, the company is today firmly placed in the digital universe as a leading manufacturer of audio mixing consoles, routing equipment and broadcast systems.

Studer's first digital audio products were launched more than 10 years ago, the OnAir 2000 continuity console with its highly ergonomic user interface, and the D950 mixing console which was to introduce the revolutionary Virtual Surround Panning™ format. From these origins, Studer has developed its two most successful audio production platforms: the OnAir Series of broadcast consoles which pioneered the Touch 'n' Action user interface, and the Vista Series of digital mixing desks, featuring the revolutionary VISTONICS™ user interface.

In this last decade, Studer's R&D productivity has been at its height, also developing the SCore DSP engine and its SCore Live version, flexible digital routing systems, and the Studer CMS (Call Management System) which is used station-wide by Danish Radio and many other radio facilities, including the Swiss broadcasting organisation SRG. Through the versatility of its consoles, notably the Vista Series, Studer now appeals to customers in TV and radio broadcasting (both fixed and mobile) recording facilities, theatre and opera sound reinforcement, and most recently, the live touring business.

This year's 60th anniversary coincides with the 60th birthday celebrations of Studer's charismatic Bruno Hochstrasser, who started working there 37 years ago as a part-time test engineer for tape machines: "Throughout all the strategic repositioning and changes of ownership, we've kept our values. For 60 years, Studer's commitment to continuous investment in research and development has maintained our position as a world leader in both analogue and digital technology. This has resulted in the award of more than 20 technology patents but, more importantly, it gives Studer the engineering and design skills to turn these technologies into innovative and often unique products that our customers want to use."

Hochstrasser recalls a key moment in Studer's recent history. "In 2002, we launched the Vista 7 with its revolutionary VISTONICS™ user interface. Although we had the idea of the Vistonics user interface several years before, we lacked confidence in how we could implement it mechanically and we were put off by the high cost of the TFT screens. In time however, we came up with the solutions because we strongly believed then, and to this very day, that product differentiation and success would centre on the man machine interface and ease of use. When introduced, the VISTA consoles became an immediate success and are a significant backbone of our success today.

"The market has changed a lot in the past ten years. Product design is improving, and the look of products has become far more important. People want to work in a beautiful environment so that they can focus their creativity. It is frequently not the engineering type operating the equipment; in radio, for example, DJs are often at the controls.

"We are fortunate to have a very innovative team in R&D, many of whom have been with Studer for years. Also we have a very loyal customer base. Central to Studer is the partnership with our customers – all our products are tailored to customers' needs, and can be configured according to their requirements – and it is this philosophy which has shaped our business to become Systems and Solutions, rather than just audio products."

Hochstrasser looks ahead to the next decade: "In future, all manufacturers' products will last less long. They will be made, or parts of them will be made, in countries where production costs are lower than here in Europe. They will cost less, be simpler in design; although less cost doesn't necessarily mean fewer features, the opposite is true.

"How will Studer maintain its position? By adding value, by adding Studer's unique know-how and expertise in system integration, and by preserving the importance of the man-machine interface. We will have to work very hard to keep what we have in the face of new competition, but I believe we can do that by applying our system approach not just in the state-owned broadcast organisations, but all the way through the market to local radio stations In addition, our brand is well-positioned to tackle other markets. An example here is sound reinforcement, where reliability and ease of use are key factors for success."

Some of Hochstrasser's predictions are already bearing fruit. Largely because their electrical components are unavailable in ROHS compliant versions, the much-loved OnAir 1000 and OnAir 2000 consoles have reached their end-of-life. More than 2000 of Studer's loyal customers use these extraordinarily successful digital mixing consoles, but the last one has left the Regensdorf factory after more than 10 years in production. The OnAir 2000 was and still is the reference broadcast console in markets which placed high priority on availability and maintainability, while the OnAir 1000 delivered the same attributes for small to mid-size radio installations. Their outstanding reliability and robust design made them the workhorses of radio broadcast facilities around the world, from CBC in Canada to the Voice of Vietnam, from Radio Romania to the Namibian Broadcasting Corporation.

But, the future demands change and they are being replaced by the new-to-market OnAir 2500, a totally self-contained system which builds upon the operational concepts of its predecessors. This digital all-in-one on-air console for radio applications offers control surface, I/O breakout, DSP Core and power supply all integrated within a single compact chassis. It is available in three standard configurations with 12, 18 and 24 faders and motorised channel faders are available as an option.

With developments like this, Studer are poised to celebrate their 100th anniversary and beyond.

Studer celebrates 60th Anniversary

A potted product history

Here are just some of the product highlights from those 60 years, there are of course many more. Studer has painstakingly put together a Museum of all its products at the headquarters in Regensdorf.

1948

At the beginning of 1948, Willi Studer founded his business, After working for six months, day and night, the first ten high tension oscilloscopes were produced and ready for delivery. In September of the same year, the young firm moves to Wehntalerstrasse in Zurich into the basement of an old post office building, where the staff consisted of three people.

1949

The first tape recorders are imported from the USA. They are not marketable without modifications, so the importer approached Studer to modify these devices by replacing capstan-shafts, friction pulleys and rollers. Slowly the idea of developing and constructing a better tape recorder emerges. With the purchase of 500 recorders from the importers, development on the first Studer designed tape recorder Dynavox begins.

1951

The prototype of the first STUDER professional studio tape recorder is ready for operation, and it is used by the Swiss Broadcasting Corporation to record on tape for the first time the performances at the Lucerne International Music-Festival.

1952

In addition to the production of the T26 REVOX tape recorder (the successor to the Dynavox series), 100 studio tape recorders are built.

1955

A new era of professional studio tape recorders begins with the development of the series Studer A37 and B37.

1958

The prototype of the first portable Studer model 69 mixing console is completed, but before it can be offered to the Swiss Broadcasting System, it has to pass many tough tests in the Inspection Department of the Swiss Postal Authority.

1963

Introduction of the fully transistorized professional tape recorder A62.

1964

Presentation of the prototype version of the 4-channel-studio tape recorder J37. It represents the most complex, tube-equipped machine of its day and its use on *Sgt. Pepper's* paves the way for the acceptance of Studer products by well-known disc recording studios the world over.

1968

A new audio mixer, Studer 089, is offered by the studio equipment division. Compact modules, which provide a multitude of adjustments in each channel form the nucleus of this new product.

1970

The new generation of the series A80 professional studio tape recorders is introduced in the spring of this year. The entirely new design concept satisfies a wide range of applications while its well-conceived modular construction is optimised for production. Some of its outstanding characteristics are: Sturdy tape transport mechanism with integrated logic control, electronically controlled tape tension even during fast wind and braking phase, electronic sensing of tape motion and direction, electronic tape timing, electronic speed control, plug-in amplifier modules with separately plug-able equalization and level pre-sets plus electronic equalization changeover.

1978

A memorable year for the founder Willi Studer: in the autumn the ETH honours him for his relentless effort and research. They bestowed upon him the rare Honorary Doctor of Technical Sciences. The newly developed multi-channel tape recording machine Studer A800 is introduced. The largest machine ever provides exceptional features: micro-computer controlled drive mechanism, PLL-capstan-servo with 13-MHz-quartz control and flat disc tape tensioning. The late eighties and early nineties saw a great deal of

corporate activity. Studer Editech was formed after the buy-out of the American company Integrated Media Systems. Studer soon offered digital audio workstations complementing existing digital products as the D827 48 channel digital DASH recorder.

1990

A program of extensive reorganisation culminated with the sale of the Studer group to HARMAN INTERNATIONAL INDUSTRIES in 1994.
The first large scale digital mixing console, the D940, was sold to WDR Cologne in 1993. In spring '95 a complete digital radio broadcast system for Swiss broadcaster DRS went on air.
In the same year Studer presented its first 2 track MO-recorder, the D424. An 8 channel Mic/Line preamplifier with high-end A/D converters was launched as the first unit of the so called D19 Series.

1996

A year of new products starting with the new CD Recorder D741, followed by new digital routing equipment, a new analog mixing desk Studer 928 for broadcast, theatre and live production, and the digital continuity console Studer OnAir 2000 with a highly ergonomic user interface.

1997

The all new Studer D950 digital mixing console gains much attention on the first presentation due to its unparalleled performance and capabilities.

1998

Introduction of the revolutionary Virtual Surround Panning™ mixing format on the D950S and the PUMA-chip: this specialised high-power DSP-chip developed by Studer is used in the DigaStudio controller for the DigAS software by D.A.V.I.D.
Also in 1998 Studer introduced the V-Eight, an 8 channel 20 bit digital multitrack recorder based on S-VHS cassettes.

1999

Studer adapted the D950 core technology to the digital D941 broadcast mixing surface, resulting in a very powerful and flexible broadcast desk, the Studer OnAir 5000.

2000

Studer re-launched its very successful D950 high end digital mixing console as the D950M2 with a new surface design and many more features. In the same year Studer also introduced the OnAir 1000 digital mixing desk for radio broadcast and production applications.

2001

After more than 600 OnAir 2000 installations, the OnAir 2000M2 entered the market – a completely reworked and improved version of the OnAir 2000 including an input router and with new, attractive styling.

2002

A very busy year for Studer. At NAB in Las Vegas Studer surprised the industry with the most advanced user interface in the market, the Vistonics Touch'n'Access concept. Vistonics has rotary encoders and push buttons integrated within a graphical display, allowing the graphics to relate directly to the knobs and switches and to change according to the functionality selected.
In the same year, at IBC in Amsterdam in the autumn, Studer launched the broadcast version of Vista, the Vista 6, together with a decoupled and stand alone channel bay, the Vista Remote Bay, intended for theatre applications where the control needs to be in the audience.

2003

Studer enhanced its on-air mixing console product range with a smaller and fixed configuration all digital mixer, the Studer OnAir 500 and a highly flexible and modular system, the Studer OnAir 3000. The OnAir 3000 is based on a new mixing DSP core technology, the SCore, and a modern and flexible software architecture allowing seamless system integration and opening the way to complex networked broadcast systems.

2004

The Studer Vista 8 is launched, and becomes the de-facto standard Broadcast Production console. It is adopted by high profile companies like the BBC in London .

2006

A compact digital production console, the Vista 5, is launched. This small footprint desk is highly portable and easy to set up.

2007

Studer enters the Tour Sound arena, with the road-ready Vista 5 SR. Mechanically re-engineered, the desk immediately finds favour with the world's top sound companies and engineers.

2008

The OnAir 2500 compact digital broadcast console is launched.

Studer celebrates its 60th birthday at IBC.

World News Update

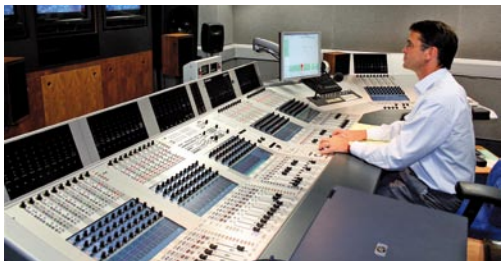
A selection of our customer's news over the last 12 months

FOUR STUDER VISTA 8 DIGITAL DESKS NOW INSTALLED AT BBC STUDIOS TELEVISION CENTRE IN LONDON

Four Studer Vista 8 digital audio consoles have been installed at BBC Television Centre in west London. BBC Studios, part of BBC Resources Ltd., ordered the desks for Studios Eight, Six, and Four, following the positive response to the installation of a 72-fader wraparound Vista 8 into BBC Studios' flagship Studio One two years ago.

Studio Six was the first studio to go on-air with its new Vista 8, having completed a console-only refit in the impressively short time-frame of five days. By contrast, in Studio Four, the Vista desk is incorporated into a new infrastructure. The Studer Vista 8 audio production format will be the most widely used at BBC Studios Television Centre.

The BBC Resources team evaluated all the alternatives in the digital broadcast console market, and the Vista 8 was judged to be head-and-shoulders above the competition. It offered other very significant advantages to the broadcaster, in addition to the engineers' existing familiarity with the operational design.



Studer's UK sales manager Andrew Hills points out: "Working on a Studer Vista 8, with its patented Vistonics™ interface, is a different way of working. Engineers get to grips with it quickly and love using it. With four Vista consoles at Television Centre, it will be even easier for BBC Studios to train more engineers in the use of the format."

STUDER VISTA 5 IN STARRING ROLE FOR FRENCH NEWS TV

Studer's versatile compact digital audio mixing console, the Vista 5, is making inroads into the broadcast production market, and has won a leading role at BFM TV, France's television news channel.

Headquartered in Paris, BFM TV reaches some 10 million viewers a week with its hard news programming, available on French digital terrestrial television and broadcast free 24 hours a day by satellite, by DSL, by mobile television, by cable providers, and live on the channel's website.

BFM TV's operation involves a number of external input sources – from broadcast cars and internet correspondents to phone-ins – which have to be edited and compiled in a very short time. At its busiest, there can be five guests in the studio and another eight correspondents on the line, so it is important to have everything on the faders so it can be accessed speedily.

Technical Manager Philippe Espinet explains that: "At this station, very different shows follow one another in quick succession, which requires rapid switching from one configuration to another. In this respect, our engineers are especially pleased by the Vista 5's integrated processing, and how easy it is to save a snapshot."

SPANISH VISTAS

Spain's public-service TV broadcaster has installed three of Studer's flagship digital audio consoles, the Vista 8, for its new studios in Barcelona and Madrid.

All three consoles are installed in new-build studio control rooms, as TVE (Televisión Española) develops its production facilities. In Madrid, a new studio has been prepared for Channel 24h, the international news channel which broadcasts round the clock, with more than twenty SDI interfaces built into the desk.

In Barcelona, two new control rooms have been added in TVE's Programme Production Centre. These are equipped with 62-fader Vista 8 consoles for the general production duties – musicals, debates, children's programmes – that were being temporarily handled by two OB vans.

These are the first Vista 8s for the Spanish broadcast giant, although the decision to purchase was made on the back of TVE's successful experience with a Vista 6 model, still being used on the 24-hour news channel.

Antonio Garcîa, director of Agave Broadcast, explains that there is general recognition in the Spanish broadcast market that the Vista 8 is one of the most powerful consoles available. "Because of the Vistonics user interface, the Studer desks are also the easiest for the operators to master, requiring remarkably short training."

OBSERVE PICKS STUDER FOR A SECOND HD OBV

Dublin-based outside broadcast facilities operator Observe has installed a new Studer Vista 5 digital audio console into one of the smaller HD vehicles in its fleet.

Observe has refurbished its HD2 vehicle, an 8-camera truck with production, audio and video control suites on board. An analogue audio mixing console has been replaced with Studer's state-of-the-art compact digital mixer, the Vista 5, which is ideal for the smaller projects that are the HD2's bread and butter work.

"HD2 is used for games, chat shows and other productions which are recorded in places where we can't park our expander truck HD1, for example at inner-city locations," explains Colm Flynn, Observe's Head of Sound.

"Although we considered other brands of digital mixer, the Vista 5 was always our first choice. Obviously we wanted to have consistency within our fleet, and there is a Studer Vista 8 in our HD1 vehicle. The other reason was the D21m remote boxes, which interface between the Studer DSP cores and other equipment, and which we can use with both trucks."

ROMANIAN RADIO COVERS NATO SUMMIT WITH STUDER ON-AIR DESKS

The Romanian Radio Broadcasting Corporation has, over the last 10 years, been one of the biggest customers for Studer's series of OnAir digital audio mixing consoles. Recently they purchased two of the latest models, the OnAir 3000, initially for use on the NATO Summit which was held in Bucharest.

The gathering of the NATO community leaders in Bucharest was a hugely prestigious event for host country Romania, which is one of the newest members of the Organisation. The Summit ran concurrently with the Bucharest Conference, a high-level gathering of decision-makers, opinion-shapers and academics, which acts as the public platform of the Summit.

Two studios were specially built to manage the recording and transmission of interviews and live coverage of proceedings.

Purchased for the event, two Studer OnAir 3000 digital audio mixing consoles were installed in the temporary radio studios, with relatively modest 9-fader configurations but having the capacity for expansion when relocated to Radio Romania's main broadcast facility after the Summit.

MIX MINUS IS KEY TO CNBC EUROPE CHOICE OF STUDER VISTA 5

Europe's leading business news TV channel CNBC Europe has commissioned a Studer Vista 5 digital audio console as part of a substantial refurbishment programme of its facilities in the City of London.

CNBC Europe uses two television studios for its daily live operations, which broadcast to the most influential figures in the European financial sector. Having taken the decision to upgrade its main audio facilities to a digital platform, CNBC Europe's Head of Technology Neil Burt headed the search for a new console.

Burt was specifically looking for proper mix minus capability: "The quality of mix minus was our first criterion, anything else the console could do would be a bonus," he says. "It's the key plus point for a broadcast rather than a general production console, and on the Vista 5, it is clearly at the operator's disposal."

CNBC Europe has a huge requirement for clean feed working. Local programme production includes four, five, maybe six guests per show. A whole range of external sources from the CNBC satellite network bring news from the main financial markets all over Europe. The studio processes feeds to tower connecting with a number of cameras in banks and trading floors in London, and there are pipelines to the US and Asia to pick up feeds from those territories.

The final decision to buy Studer was taken after a visit by CNBC's key operators to London's Royal Opera House, home to two Vista 5s and a Vista 8. "We saw the ease of use, the flow of the desk using the Vistonics approach, and we could easily see how it correlates with what we've been used to," explains Burt. "The Vista 5 was the only console that was user-friendly for everyone. Within two days of starting, people were already creating their own snapshots!"

STUDER'S VISTA 5 CONDUCTS SWISS FOOTBALL BROADCAST TRAFFIC

Ringier TV is one of the leading content producers for Switzerland's television channels, notably SF and Sat.1 Switzerland, and its value-added sports packages are made available to the public via the Teleclub subscription service, or over IPTV via Bluewin TV (Swisscom's new service).

Ringier TV made clever use of a Studer Vista 5 digital audio console to create the pay-TV channel content for the UEFA Champions League, the Swiss national football league and Switzerland's National Ice Hockey League A.

Ringier TV used the Studer Vista 5 digital console to automate the audio-follows-video process, and add the audio extras to the package. System planner Daniel Berthoud explains: "Originally our idea was to use six or eight small mixers to do this, but they could never give us the flexibility that we needed."

He continues: "On most consoles, you have only one or two master outputs, but with the Vista 5, you can specify as many as you want – 16 or more – depending on your DSP provision. In theory, you can expand indefinitely."

Typically, on Champions League fixtures, each game is mixed down on the Vista 5 from ten inputs to four stereo outputs. On a busy day, eight football matches will be handled simultaneously with ice-hockey games, and the only human adjustment will be the mix level of the commentators' speech!

According to Daniel Berthoud, the Studer-based audio control system could handle many more games; in fact, the only limitation is the maximum of 16 lines that can be sent to the carrier Teleclub.

PORTUGAL'S TVI TRANSITIONS TO DIGITAL WITH STUDER VISTA 8

Portugal's most-watched television network TVI has installed a Studer Vista 8 digital audio mixing system in a new general production studio in Lisbon.

TVI's prime-time programming is reserved for its own productions, mainly soap operas, phone-in quizzes and reality shows. There have been Studer analogue consoles at TVI for several years, but the upgrade path to digital facilities has led TVI to its first 42-fader Vista 8. The console specification includes a redundant control system, and the addition of two extra cards in the SCore DSP system enables autoswitching between MADI interfaces and a remote I/O interface.

"We're making the transition from analogue to digital facilities, so the whole concept of Studer's Vistonics™ user interface, which has a very analogue feel, plays an important role. The redundancy of the Vista 8 was another key factor in our decision: there is full 100% redundancy for all parts of the desk, including the control system, which gives us peace of mind."

Studer's Portuguese distributor Custódio Cardoso Pereira (CCP) has also delivered a 32-fader Studer Vista 5 console to Estudio Carvello, a privately-owned television production facility, where it replaces a 20-year old Studer 900 analogue console.

RADIO NETHERLANDS OPTS FOR STUDER ONAIR 3000 DIGITAL UPGRADE

Radio Netherlands (RNW) has picked the Studer OnAir 3000Net system as its route to the comprehensive digitalisation of its central network operation.

RNW is a public radio service, producing and broadcasting programmes for an international audience outside the Netherlands, and ranks alongside the Voice of America and BBC World Service as one of the most influential stations in the world.

The NOC handles the final output stage of all RNW's broadcasts, and also houses the main control rooms. As the station has grown, broadcasting more and more hours of programming, RNW has had to replace the technical infrastructure of its four radio production studios. In each of four self-op 'presenter studios', there is a new Studer OnAir 3000Net console. A fifth desk is located in a master control room which can access and control the worksurfaces in the individual studios, via an IP network.

Project manager at Radio Netherlands Chris van Gelder, explains that: "The excellent ratio of price to quality, combined with Studer's many years of experience in the broadcasting world, are important criteria which justify our choice of the OnAir 3000." His words are echoed by Rob Dam, Sales Director at Heynen, Studer's distributor in the Netherlands: "The OnAir 3000 system is very sophisticated, has a beautiful design yet is very simple to operate. It meets the highest quality standards and, thanks to its modular design, a tailored solution can be provided for every situation."

LEADING RADIO BROADCASTER BRINGS STUDER TO THE MEDITERRANEAN

Studer has delivered three of its OnAir 3000 Modulo digital audio broadcast consoles to MEDI 1 in Morocco, a leading radio network for the north African Mediterranean regions including Algeria and Tunisia.

In these Maghreb countries, 23 million people listen to the bi-lingual output of Medi 1. Also known as Radio Méditerranée Internationale, this French-backed commercial station is based in Tangier.

Installation specialists Decibel SA have upgraded Medi 1's existing digital consoles to Studer's newest Modulo version of the OnAir 3000, standardising the configuration throughout the station. Because the OnAir 3000 design is based on a completely modular desk, Decibel has specified two 6-fader modules for each control room.

"Although Medi 1 was well ahead of the game, installing digital on-air consoles in 2000, they were not satisfied with the support from the manufacturer," says Decibel's Jean-Pascal Ruch. "Studer lives up to its international reputation for quality build and software reliability, plus the OnAir 3000 has the advantages of its operating concept which ensures that the most important functions are just one touch away, accessible virtually instantly, which is vital in live on-air situations."

IMMANUEL BIBLE CHURCH FIRST TO TAKE LEAP OF FAITH WITH NEW 42-FADER STUDER VISTA 5 DIGITAL DESK

Immanuel Bible Church in Springfield, Virginia, has become the first purchaser of the new 42-fader Studer Vista 5 digital audio console in the United States. The console, which has been installed at front-of-house in the 1,100-seat auditorium, was selected for its input and output capacity, its simplicity of use by novice operators, and its flexibility, allowing simultaneous control of the main house system and monitors under two-man operation.

Services at Immanuel Bible Church range from the very simple, involving a dozen inputs, to large events such as Easter pageants, where 120 inputs are not unusual. Since many of the services rely on volunteers to mix the audio, operation had to be intuitive. Tim Heacock, the church's Director of Audio, Visual and Lighting, comments: "With the Studer, everything that you need in a live situation is right there, and it's logical. The stuff that you don't need in a live situation but you have time to prep is down a couple of menus, but it's not so deep that you can't find it. We decided on the Studer because it's just laid out so well. It has a tremendous design."

"With the Studer we can set the system up, program it, adjust mic levels, and have everything ready to go so that all our volunteers have to do is push up the faders. If he doesn't know how to set compression or EQ, we can do that ahead of time during a rehearsal. It doesn't have to be a perfect mix. We walk out and they take care of it. It's just fabulous to be able to do that."

There is another advantage to the Studer Vista 5 in the absence of a dedicated monitor desk, notes Heacock: "You can put an operator on a bank of 10 faders and he can sit there and get to any channel and adjust monitor levels. So I can have one person running monitors while I have another person running front-of-house on the other 30 channels. I can have them both working at the same time."

STUDER IS AT HEART OF THE KINGDOM'S HD PROGRAM

Studer has supplied seven Vista 5 consoles to the Ministry of Culture and Information, which takes responsibility for the Kingdom's television broadcasting, and operates the four networks of Saudi TV.

Although the company has supplied numerous on-air consoles and radio automation systems to radio stations in the country, these are the first digital desks to be deployed by Saudi Arabian government-owned TV stations. The Vista consoles are being delivered by Riyadh-based systems integrators First Gulf Company (FGC), nominated by the Ministry of Culture and Information, which is collaborating with Studer for the first time.

The first three Vista 5 consoles have already been installed in the Riyadh TV Centre, which houses the facilities for the Saudi Sport and Saudi News channels, the latter known as al-Ikhbariya, with the third console going into Production Studio D. Another two Vista 5 desks are due to be installed in the new TV centre in Dammam, where they will be used in the Saudi TV Production studio and in the Saudi TV News studio. Two consoles are destined for on-site HD TV studios at the Holy Mosques of Mecca and Medina. All audio installations are taking place as part of an ongoing programme to upgrade the state-run TV facilities to high-definition capability.

Having seven digital consoles operational in the TV networks of the Kingdom of Saudi Arabia completes the regional picture for Studer, which has been consolidating its reputation and user base in the Middle East for the last ten years.

This summer, in Abu Dhabi, the government-owned Emirates Media Inc. is taking delivery of four Outside Broadcast vehicles, built by Thomson in France, which have been equipped with Vista 8 and Vista 5 audio consoles,.

Vista 'Vintage Dynamics' A tool to shape the sound

Let the engineers be creative!

Peter Weber
Product Manager
Vista Series

The open architecture of the VMC (Virtual Mixing Console) based Vista consoles allows custom made mixing console channel/bus structures. This also enables the engineer to choose his/her preferred type of EQ and dynamics per channel type. There has always been the choice of two different EQ types, and now, since the release of Vista V4.0 there is also a second type of dynamics processing block.

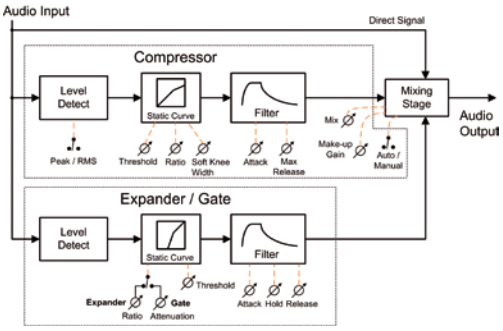
The dynamics processing block that has always been available we now call 'Classic' dynamics. It is known for its accuracy and sonic transparency and is particularly liked for productions with classical music. It consists of four stages: compressor, limiter, expander and gate. With the ability to set a look-ahead time for the limiter, it makes a great brickwall limiter for output channels.

The demand for a tool to shape and add punch to recordings has been increasing over the last few years, where modern Rock and Pop productions have become more and more dependent on creative dynamic treatment.

By listening to our customers' demands and after an intensive research and test phase, we have introduced this new dynamics processing block which we named 'Vintage Dynamics'. The name comes from the fact that we have studied the behaviour of some of the most legendary vintage outboard units such as the Urei 1178.

This new VMC processing block is available for mono and stereo channels and consists of a compressor which can be used in conjunction with an expander/noise-gate. The focus is very clearly set on the compressor. This new compressor unit is designed to be flexible enough for many different types of sound "colouration", including extreme and unusual settings.

Block Diagram :



The details:

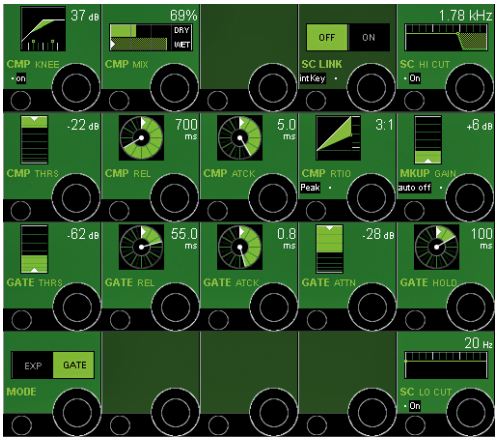
Peak/RMS signal detection lets the engineer select how the signal is controlling its compression. This choice was implemented to allow a wide range of applications requiring different types of responses, for example in percussion or vocal recordings. The RMS window size is coupled with the attack time. This is based on the observation that these two parameters have a relatively similar effect on the sound and tend to influence each other.

Auto Release Time. When the release time is set too low (fast recovery), the gain signal will modulate the audio signal. This can result in a normally undesired effect often referred to as 'pumping' or 'breathing'. On the other hand, when the release is set too slow (long release time), the compressor will not have sufficient time to fully recover before compressing the next peak in the signal. This means the next peak will have a reduced gain from the beginning, therefore eliminating the transient.

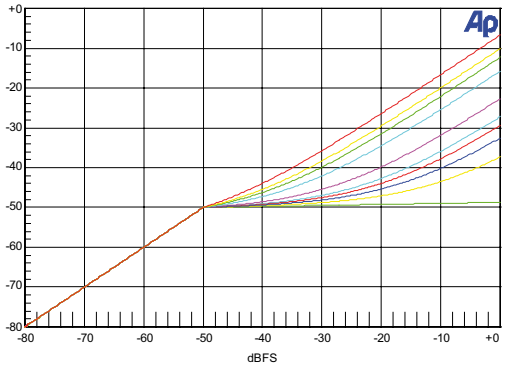
To overcome some of the compromises associated with setting a fixed release time for a given signal, the Studer Vintage Dynamics section uses an auto-release algorithm that adjusts the recovery time dynamically. To enable the engineer to retain control, there is the release time setting that lets him/her restrict the auto release time to a desired time limit.

Soft Knee. For smoother transitions between compressed and uncompressed signals around the threshold, the knee of the static curve can be 'softened', or given a 'Soft knee'. This smoothing takes place in a region around the threshold, the width of which can be adjusted (soft knee width). Soft Knee is also referred to as 'OverEasy' in, for example, the DBX 160A compressor.

The modern GUI (graphical user interface) on the Vistonics screen that controls the vintage processing block looks like this:



Wet/Dry Mix. To further increase the flexibility of the Vintage Compressor, a mixing stage letting the user combine the processed with the clean signal is added. Heavy compression can produce some interesting effects, but the clarity and punch of the original might get lost. By mixing the processed signal with the clean signal, this can be partially remedied. This technique is sometimes referred to as parallel compression.



The possibility to use the Vintage Dynamics processing block not only in the input channels but also on the bus masters, lets the engineer on the one hand shape every single input being fed to the mix and on the other hand add punch to a bus mix – be it a master or a group or even an auxiliary feed.

The choice of these alternative dynamics designs means that Studer Vista users are now well-prepared to process sounds for almost every program material that comes their way.

Vintage Dynamics is available in Vista software V4.0 and upwards, and is only available on SCore Live based systems.

Route 6000 – Version 2.0 approaching

A new system software to unveil the pure power of Route 6000 and to improve its flexibility at the same time.

Axel Kern
Product Manager
OnAir & Router Products

The Studer Route 6000 is designed as a powerful central device to interlink multiple digital audio devices in any audio installation. To meet the increasing requirements of future projects, Studer is currently developing a system software upgrade, which adds some powerful features and dramatically improves the effective usage of the DSP power.

Cross Platform Integration with Vista and OnAir Consoles

Route 6000 has always been based on the DNET platform of the OnAir 3000 digital consoles. This gives full compatibility with established software applications, like the Config Tool, which can be used for configuring either a Route 6000, an OnAir 3000 or an OnAir 2500.

Via DNET it is possible, for example, to recall snapshots remotely from any console desk surface in the network.

The scope of the version 2.0 software is to make the router the interconnecting device for Vista and OnAir consoles. Already available on the Studer OnAir consoles, it also fully supports I/O sharing for Vista consoles. It will be possible to share any audio signal within multiple Vista or OnAir consoles, with exclusive remote access to signal parameters from every console surface. Especially when sharing microphone signals on networked consoles, remote access to microphone parameters like analogue gain and phantom power is possible.

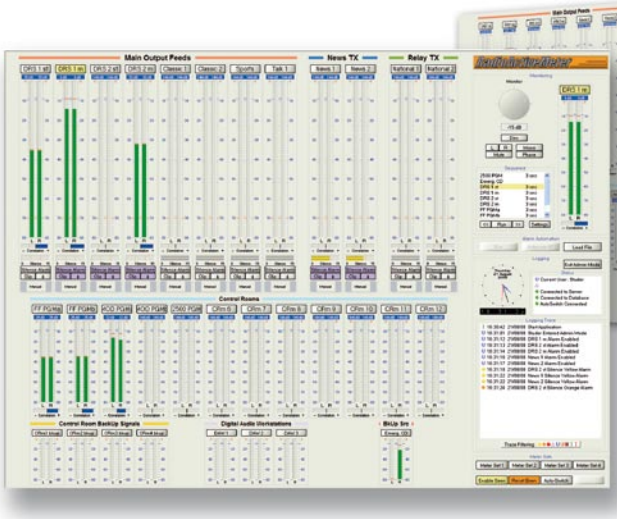
The Route 6000 will also serve as a central concentrator, tunnelling shared signals between multiple Vista and OnAir devices, independent of the signal format.

Assignable Processes

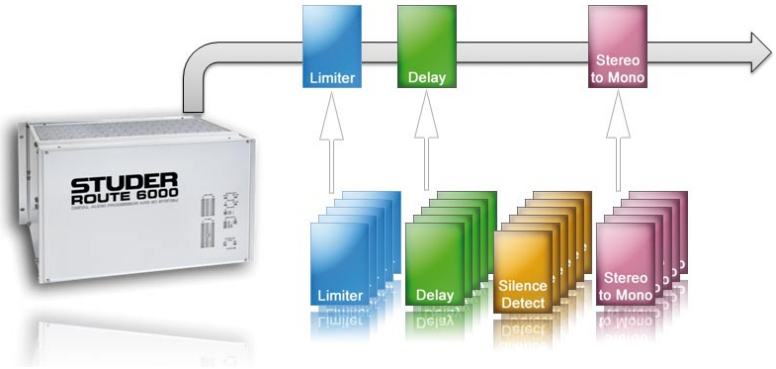
Focusing on flexibility, the system resources will be available in a high number of individual processes. Already enabled are standalone filters, dynamics and summing features. As a result, a large variety of different standalone processing functions can be achieved on the same hardware.

The real advantage for your application is the flexibility of using these processes. Any process can be assigned to either an input signal or an output signal. This is achieved as easily as setting a cross point. It is also possible to chain several processes into an individual sequence to manipulate a signal.

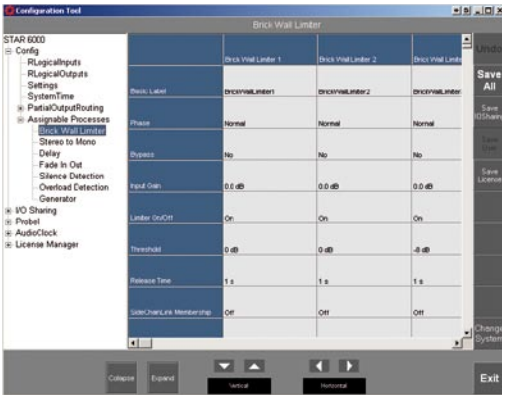
The single granularity increases the quantity of available processes into new dimensions. Besides many other processing features, every DSP module supplies, for example, 30 limiters, 30 delays and more than 60 summing functions.



With Virtual Studio Manager (VSM) as a controlling application, flexibility is carried forward into the user interface. VSM is a third party control system in a client/server structure, which is perfectly integrated with Route 6000, but not limited to Studer products. It represents a scaleable, comfortable interface to control cross point setting and processing in the router, giving a multi-user environment access to any internal parameter, either via hardware or software control elements.



Virtual Routing



The entire internal processing is handled fully independently from the matrix channel count. No matter how many DSP features or which type you use in your application, the maximum number of 1728 I/O cross points is not affected.

Output Monitoring

Listening to signals within the router is also improved in V2.0. It will be possible to monitor the very end or any position within a signal chain, to ensure a signal is processed correctly or leaves the device as desired.

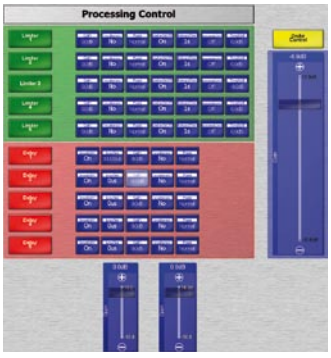
Operation and Signal Surveillance

SNMP (Simple Network Message Protocol) is implemented in V2.0 and will be available by default. It allows the user to survey system health in a scalable depth. At a basic log level, the router sends out Traps, automatically generated critical messages triggered by the router, whenever a parameter has reached or surpassed a specified threshold. In addition, system state messages and uncritical information can be manually triggered from external inputs. Such Polls can be used to create a comprehensive status overview at any time.

Optionally, Route 6000 systems can be enhanced by a very close integration with other applications, for example audio metering. You can monitor up to 64 stereo signals simultaneously and display them on 2, 3 or 4 high resolution screens. Custom meter layouts allow the user to highlight those signals which are important.

At the same time it is possible to survey levels of specified signals, and trigger alarms in case any level has fallen below a critical value. To prevent signal loss, multiple alternative sources can be configured, which are switched in the router as an emergency signal in the event of silence detection.

With V2.0 representing a powerful set of new features, enhancements and refinements, Route 6000 is now the one and only alternative to network your Vista and OnAir Consoles. No other system offers such a high level of integration.



OnAir 3000 V3.0

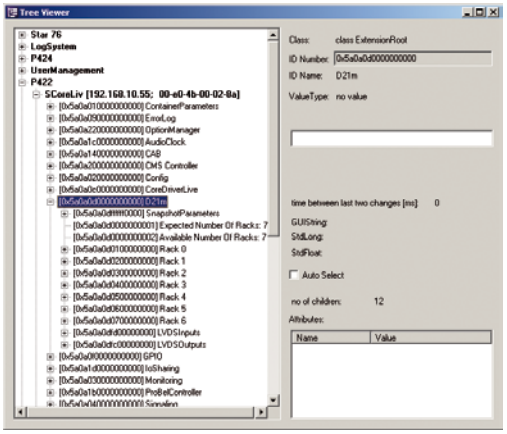
Software release 3.0 is not only a feature release extending the OnAir 3000 console with additional useful functions. It is also the result of a major software restructuring programme with the goal to separate the DNet framework from the OnAir 3000 application software.

It is an important milestone for future Studer OnAir product development and enables integration of all Studer products.

Gabor Soos
OnAir Research & Development Engineer

DNet Framework

From the user point of view, the control software of DNet-based products works as a distributed database on the network: Each subsystem (in the case of an OnAir 3000 it's a Core, a Main Screen, the Channel Screens, the Remote Console, the ConfigTool, etc.) is running a container instance publishing a hierarchical tree database and making it available for other devices in the network. Using a browser (Tree Viewer), the main database as well as all other available instances of containers in the network can be accessed in a tree. The most upper instance is the main database (System86→TreeViewer), which is locally stored. Starting from the second bold entry in the tree, all data is stored remotely on the respective containers.



The approach of a distributed database provided by the DNet Framework operating platform allows the linking of Studer products based on a TCP/IP network.

DNet represents a well-established and robust software framework operating 24/7 in hundreds of OnAir 3000 console installations worldwide. Now, with version 3.0, the framework was separated from the OnAir 3000 application software with clearly defined interfaces as a basic software platform for future OnAir product development.

As a result, customers benefit from a lot of true advantages. For example, it provides compatibility and continuity across the OnAir product range, a common management software (Config Tool) and outstanding I/O sharing functionality that offers more than just the ability to connect audio, provide ID labels and remote control of the microphone settings.

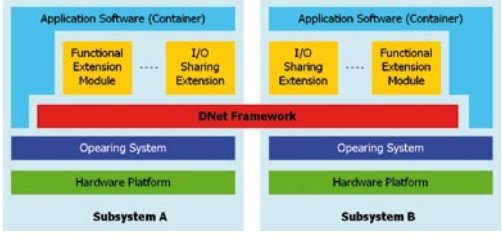
I/O Sharing Extension Module

The separation of the I/O sharing module into a product independent functional module is another step in increasing the modularity of the OnAir 3000 software.

In DNet terminology, the application software is called the 'Container'. During start up, a container loads the required functional extension modules, which forms the entire functionality of a subsystem. Subsystems are, for example, the two cores of two OnAir 3000 consoles using I/O sharing.

The functional extension modules typically cover a certain scope of console functionality. Modules are either related to a certain product or they are common and can be used for all DNet based products. With version V3.0 the I/O sharing extension became one of the common functional extension modules.

Using the DNet Framework, each functional extension module is able to publish its database to the network in order to be accessed by modules running on another subsystem.



Encapsulating the fundamental mechanisms of I/O sharing into a functional extension module together with the DNet Framework is the basis for smoothly integrating all Studer products. OnAir consoles, Route 6000 systems and the Vista product line are able to share their local inputs, outputs and Σ-busses.

Motorised Fader Module

Introduced with Studer's OnAir 2500, the brand new motor fader module extends the great variety of optional OnAir 3000 desk modules.

The module contains six full 100mm faders, four large illuminated and configurable pushbuttons with replaceable label and twelve illuminated small pushbuttons per channel. Two LEDs in each fader strip indicate channel overload (red) and active fader start (blue).

Eight small pushbuttons beside each fader allow immediate access to a linked subpage in the main screen of the OnAir 3000 (Touch' n' Action) for quick interaction on channel parameters, no matter what content was shown before a button is activated.

Two small USER pushbuttons are freely configurable to any channel function, for example as the bus assignment.

Level and gain reduction meters are shown on an OLED display on every channel. Channel label, the I/O sharing producer system name and channel process parameters are also indicated on the OLED. A touch sensitive rotary encoder with two associated pushbuttons below every display allows you to change the indicated channel parameters without losing focus on the fader strip. The OLED display gives outstanding readability of condensed content, even in bright ambient conditions.

Snapshots

With software version V3.0, the fader position and channel ON/OFF state are stored in the start-up configuration and user snapshots. This allows hidden channels (DSP processing channels, which have no fader assigned) to be used for background processing or auxiliary summation. The feature can be disabled.

Delay

To compensate for audio to video signal offsets when operating the OnAir 3000 in a TV environment, software V3.0 provides a delay function for all consoles based on the SCore Live DSP platform. During operation, delay can be activated and adjusted on input channels, master-, aux- and N-x busses and subgroups. It is possible to set any delay time between 0 and 5 seconds in a resolution of milliseconds.

D21m I/O System

Two additional D21m cards are now supported:

SDI De-Embedder Input card

EtherSound* I/O card

A new GP output function (Forward Input) allows the copy and redirection of an incoming control signal on any GP input to any GP output. This may reduce cabling costs as it allows external control signals to be transmitted through MADI from the core to a MADI stage box.

System Surveillance via SNMP

With version 3.0, the system state of an OnAir console can be monitored via SNMP messaging. The Simple Network Management Protocol is a common method to monitor and control networked devices independent of type and usage.

The way SNMP is implemented enables two different methods of receiving information from a single or multiple OnAir systems in an IP network.

Systems can actively send critical or other important status information to an SNMP manager connected to the network. Special messages (Traps) are triggered when parameters reach or surpass predefined thresholds. For example a processor's temperature has risen to a critical level or a console's on-air state is activated.

**EtherSound is a trademark of Digigram S.A.*

Additionally, traps are sent on any occurring system alert and such active sending requires no user interaction. Parameters to create traps and their associated thresholds can be configured in a corresponding XML file for each console.

User messages which usually appear on the main screen of the console can also be forwarded to an SNMP manager as traps. The category of messages to be forwarded is configurable.

For surveillance issues, users can also request the current status information of system parameters (Polls). This is possible at any time and is independent of status and parameter.

To view SNMP messages from an OnAir system, customers can use any third party SNMP manager software.

Usually, such manager applications combine viewing, logging and filtering functionality with useful features such as the ability to send a notification email when a specified trap occurs.

Radio Automation via TCP/IP

To support distributed studio setups, software version 3.0 now tunnels the popular existing radio automation protocol via TCP/IP. Longer distances between the console's core and the automation system can be achieved using the existing network infrastructure.

Multiple automation sessions from the same console can be achieved through tunnelling, providing control of multiple playout systems in parallel.

Virtual COM port software enables any automation system, which uses RS-232, to connect to the OnAir 3000 core without the need for hardware interfaces.

Other V3.0 Enhancements

Depending on the core configuration, up to 16 additional external talkbacks (sources and destinations) can be configured.

USB memory sticks can now be used in the same way as Compact Flash cards to save and restore configuration and user snapshots.

Partial Output Routings, which were successfully introduced with version V2.2, can now be activated from the desk or any other console. This allows remote control of the output routing of an OnAir console or the Route 6000.

Up to 20 XL boxes can now be connected to a single core allowing operators pre-listening and talking to external telephone- or codec lines and other locations like control room and studios.

OLED Technology

A major step in user interface advances

For the first time, Studer is using OLEDs to display channel status and various meter values in the new OnAir 2500 broadcast mixing console.

OLED stands for 'Organic Light Emitting Diode', the principle of which has been known for over twenty years and whilst the design is relatively simple the breakthrough to being economically viable was more recent.

It works like this; several very thin organic films are placed between two transparent electrodes that are both located on a glass substrate. Then, by applying a voltage between the upper and lower electrodes, the cathode injects electrons into the organic matter, while the anode does the same with holes. The electron-hole recombination builds-up excited matter that, when decaying, emits photons, i.e. visible light.

Whoever sees an OLED display for the first time will be impressed by its brilliance.

Since the organic matter emits the light itself, a very wide viewing angle results without degradation of colour or contrast; no background illumination is required, so a non-activated pixel appears really black, yielding an extraordinarily high contrast ratio of 1000 or even more, even very small font sizes can be read easily.

An additional benefit is that OLED displays can be designed to be very thin, in practice it depends only on the thickness of the glass substrates. Switching times are in the region of a few micro-seconds while current consumption is minimal.

Besides all these benefits other characteristics have to be born in mind, in high ambient temperatures the lifetime can be reduced. It largely depends on the on-time and brightness of the individual pixels, and in common with many types of display natural ageing can occur, depending on the colour, resulting in colour shifting with time. In manufacturing one of the challenges is sealing the complete unit in order to avoid the cathode matter reacting with humidity.

Impressive though they are, OLEDs are still at the outset of their development potential. Sizes of about 3" (76mm) are relatively common, but we will soon be seeing more and more of this technology as the TV market moves to OLED technology.

Meinrad Lienert
Department Manager
Hardware/Firmware

OLED screens are also used on the Soundcraft® Si3 digital console

Studer enters the live sound arena for the first time

It's little wonder that, with Studer's reputation for audio quality and the absolute ease-of-use of the Vistonics user interface, Vista consoles have been used in Live Performance environments for a number of years, particularly in high-end Theatre and Opera facilities. But less than 2 years ago, we started discussions with key sound rental companies about what would turn the Vista into a true tour sound console – one that not only would sound great, but also survive the physical rigours of being transported around the world in trucks and aircraft day after day.

We knew we had the sound and the user interface, so after some mechanical re-engineering for road stability, including steepening the Vistonics screens for easier viewing while standing, the Vista 5 SR was born. Rather than provide the full configurability as standard, we made two standard configurations for FOH and Monitors so engineers could start using the desk immediately. The Vista 5 SR was launched in October 2007.

Now, within a year, the Vista 5 SR is being used by some of the World's highest-profile sound companies on the biggest gigs.

TIMES SQUARE RINGS IN '08 WITH STUDER VISTA 5 SR AND SOUNDCRAFT VI6™

When it comes to daunting audio gigs, few can match the challenges presented by the annual New Year's Eve Show in New York City's Times Square. With a live audience of over a million and a TV audience in the tens of millions, this is one of those gigs where the whole world really is watching. Long-time audio provider Maryland Sound International (MSI) pulls off the seemingly impossible every year, but the most recent show was made better and easier with the addition of Studer and Soundcraft digital mixing technology.

Two performance stages – each with a 96-input Studer Stagebox – and a broadcast stage with 10 inputs were all fed to an optical splitter, which fed both a Soundcraft Vi6™ running monitors for each performance stage and a Studer Vista 5 SR in the main 'mix container'. According to MSI Owner Bob Goldstein, "The Studer Vista 5 SR is the console we have been waiting for. In the smallest of footprints it provides a 'no limits' solution to this project. We can bring three stages worth of inputs, truck feeds and playback into one console that is easy to use, sounds great and provides all of the outputs required, with total redundancy. With a ton of Vista consoles in the broadcast field and the extensive abuse we have put them through we know reliability is a non-issue. That is really important for this gig."

Adding to the obvious technical challenges was the fact that this show takes place in one of the busiest commercial corridors in the world and the powers that be can't exactly shut things down so the sound company can come in and set up.

"We have provided sound for some of the most difficult productions in the world – Pink Floyd on the Grand Canal in Venice and at the Palace in Versailles; Super Bowl halftime shows; inaugurations and Washington DC Mall events; and large-scale sports events, concert tours and festivals – yet these all pale in comparison to Times Square New Year's Eve," says Goldstein. "Not only can it be really cold, it is extremely crowded on the streets and sidewalks except for 2:00 a.m. until 7:00 a.m."

MSI took delivery of a pair of Vista 5 SR consoles in October with an eye toward using them for the Times Square event, which the company has been doing for longer than anyone cares to remember. Goldstein adds: "The first time I saw the Studer Vista 5, I was blown away. It has features that no other console has and its ease of use is hard to beat. An engineer no longer has to worry about layers or pages. This console answers a lot of the gripes engineers have with digital consoles. For a show like Times Square New Year's Eve, it provides a control surface that is straightforward, small and easy for our engineer to navigate through three stages, nine or ten artists, plus various feeds.

CELINE DION 'TAKING CHANCES'

Dion's world tour kicked off in South Africa on Valentine's Day 2008 and is due to run until the end of January 2009. Audio for the tour is being supplied by Canadian PA company Solotech, which has had a long relationship with Celine Dion; in fact, most of the tour's key personnel have worked with Dion for nearly 20 years, including tour manager Denis Savage, front-of-house engineer Frankie Desjardins and monitor engineer Charles Ethier.

"The priority was to find a small desk," says Desjardins. "We needed something compact to carry all over the world, which would work in testing environments like the humidity of an outdoor show in Kuala Lumpur. And we wanted the same console on monitors. This makes it much easier to train people, especially our support techs, and it means that if we want to switch engineers, there is no problem."

After spending so many years at front-of-house, Denis Savage knew exactly what he was looking for. The critical test involved recording a Dion show and playing it back. "We were very picky – we set the bar very high!" says Desjardins. "The Vista was one of the best-sounding consoles, and it had a very small footprint and weighed just 30 kilos."

Desjardins is using 96-100 channels for the show, mixing groups and input VCAs. "The Vista 5SR is really different from other consoles. You have to use it to get used to it, but that only took me about a week. Now I find it very fast to use, very powerful and overall a straightforward tool. I'm confident that it was the best choice for this tour. If there are any compromises to be made, we just remind ourselves of the amazing footprint of the desk!"

AUSTRALIA PLAYS BROADWAY - CLAIR BROTHERS

Australia Plays Broadway, was "one of the most complex I have worked on in many years," says Howard Page, director of engineering at Clair Brothers/Showco, which recently purchased multiple Vista 5 SRs. Not only does he hail from the 'land down under'; he was also instrumental in developing the SR version of the Vista 5 right down to spec'ing the viewing angle on the desk's touch-screens.

"A couple of the engineers saw the broadcast version of the Studer Vista 5 and we immediately recognized that the interface would be just incredible for live work," says Page. "We approached Studer about developing a dedicated live version and they were very responsive. They added fans, made the chassis more rigid and the rack that holds the DSP much stronger. We were able to explain to them that we require beyond a military spec because gear takes such incredible abuse on the road. Most manufacturers of install equipment just can't understand that."

"We had rock bands next to opera singers next to a concert pianist next to a didgeridoo next to twin cellists, and we had to put the whole thing together in one day," says Page. As Page is quick to note, a show like this is usually a three-day process with one day for load-in, one for rehearsals, and the morning of the show for final tweaks and 'tidying up.' But, in this case, rehearsals ran until minutes before doors opened to the public. "I had all 96 inputs full and more pressure than I have had in years and years," says Page. "I was creating snapshots and assigning them to cues – basically building the show right up to the last second – and even then I was changing VCA control groups on the fly."

"I also love the simplicity of the setup of the console. Three pieces – the worksurface and the case that holds the processing (which the worksurface sits on top of) and the stagebox all connected with one piece of fiber. We are able to get the console going in eight minutes maximum."

Studer has also responded to user requests in software updates adding features such as solo follow select, which Page says makes the SR "even easier to use." Note that this is not feint praise coming from someone who has designed a few consoles himself, including Showco's ShowConsole, a digitally-controlled analog desk that was the precursor to today's digital boards and that still ranks among the favorites of many engineers. In fact, Page credits the "brilliance of the Studer and the Vistonics software for making this very complex show possible at all.

"The software is brilliant. It's intuitive. It's stunning. You can do almost anything with it. You really are limited only by your own creativity," he says.

KEITH URBAN TOUR

Showcasing the quality, ease of use and reliability of the Studer Vista 5 SR console, Clair Showco recently provided the audio system for country music star Keith Urban's U.S. tour. The multi-city tour featured Studer Vista 5 SR digital audio consoles in use for both FOH and monitor mixing applications.

Taking both the Australian and U.S. country music scenes by storm, the New Zealand born Urban heavily relies on the sound quality of the Vista 5 SR while on tour.

FOH Engineer Steve Law and Monitor Mixing Engineer Jason Spence evaluated numerous consoles before the tour. Spence noted he had never felt as comfortable with a new desk as he did during the week he was trying out the Studer Vista 5 SR.

"When choosing a console, I have three criteria," said Spence. "It has to sound good to the artist on stage! If it doesn't, there's not much point in continuing. Second, I have to be able to get around it quickly.

With the 'inline design' of the input and output strips, the Vista 5 SR feels very 'analog.' I'm able to have control and access to all the parameters at my fingertips. There are not multiple pages to plow through to gain control of any particular feature. Lastly, it needs to be reliable and not crash. It seems that with other brands, I could get one, maybe two of my criteria met; however with the Studer, I got all three!"

BILLY JOEL AT SHEA STADIUM

Billy Joel is truly an entertainer as his 'Last Play At Shea' marked the end of an era of historic concerts at Shea Stadium.

Joel's world tour began in January 2006 and has been touring ever since. Sound reinforcement for the tour was supplied by Pennsylvania based company Clair Showco, which has had a long relationship with Billy Joel; in fact, many of the tour's key personnel have worked with Joel for multiple tours, including FOH Engineer Brian Ruggles and Production Manager Bobby Thrasher, who have worked with Joel for over 33 and 27 years respectively, as well as Monitor Engineer Mike Pirich, who has been with Joel for the past 10 years.

"The Vista 5 SR is capable of handling a lot of inputs," said Ruggles. "We've tried different digital desks before but I wasn't really thrilled at the way they sounded – until this one came along. The Vista 5 SR is by far the best sounding digital desk I've heard because it's closest to the sound of an analogue desk."

Pirich noted, "Using the Vistonics interface makes it really easy to see where you are. As far as digital desks go, this is by far the easiest to get comfortable with before a show and to prove it, I only spent a few hours with the Vista 5 SR before we did a show."

Pirich added, "It sounds spectacular! It's got lots of gain and no distortion. We have 30 faders in total consisting of three banks of 10 but are in no way limited by the number of inputs and outputs we can handle. We've just pushed 100 inputs feeding 18 stereo mixes and 22 mono mixes but really have more available inputs and outputs than we ever hope to use."

KATIE MELUA TOUR 2008

Embarking on her third European tour Katie Melua has been privileged to have her sound mixed for the second time by experienced US engineer Bill Fertig, using the pedigree of 60 years of Studer expertise.

"After the last tour I had been looking for a console that was quicker to use," states the sound engineer. "When you are talking about a live mix you have to consider a lot of paging, which is very queue intensive. Although digital consoles can make things much better, and you can recall most of your settings, there is often a 'slow down' trying to get to where you want to go. The Vistonics™ platform solves all these problems."

Bill contacted Studer, who arranged for UK rental company Capital Sound Hire (who had also serviced Katie Melua's last tour) to provide a DSP-rich, purpose-optimised 32-fader FOH desk for the tour — tailored to Bill Fertig's input and output requirements.

For the Melua tour Bill Fertig is running nearly 60 inputs, with some intensive channel patching. "It's easy to use the display, which has similar colours and icons to the Vi6. In fact the first thing that struck me apart from the Vistonics interface was the sound — just listening through headphones to know there was a great preamp meant this was enticing. In fact the Vista 5 SR is super exceptional — better than any other SR console, hands down. This far surpasses anything I've used before and it will be the console I will use for the next five years."

But overall he notes the compatibility of the Vista 5 SR's design with the live sound engineer's requirement: "Studer went into this with a different mindset and have got it exactly right. If you laid out this console in analogue format, where all the knobs and whistles were at your disposal, it would be enormous. Yet this is the smallest footprint, lightest and easiest to use of the lot — everything is where you want it to be and all the parameters and displays just open up."

Studer

Digital Mixing Technology

Already the choice of leading broadcasters and world-class concert venues, Studer's intuitive and failsafe digital mixing technology is now proven on the road.

The Vista 5 SR is a comprehensively re-engineered version of the acclaimed Vista system, incorporating revised ergonomics for operating in a standing position, and a unique temperature control system in a robust package that's already delivering flexible, Vistonics™-powered FOH and monitor mixing on some of 2008's biggest tours.

On tour with Celine Dion

"We were looking for one console that could be used for FOH and monitoring. The Vista 5 SR is one of the best sounding consoles, and it has a very small footprint and weighs just 30kg."

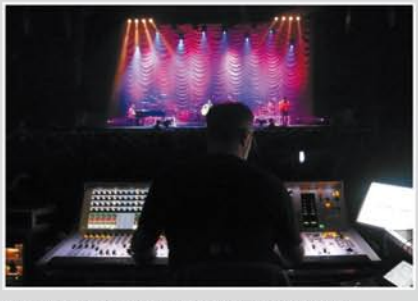
Frankie Desjardins, FOH Engineer

On tour with Rascal Flatts

"This is the only digital console I've been willing to tour with, so that says something. This one desk is doing what three other desks were doing...everything is one touch away."

Stuart Delk, Monitor Engineer

On tour with Katie Melua



"Studer have got it exactly right. This is the smallest footprint, lightest and easiest to use of the lot – everything is where you want it to be and all the parameters and displays just open up."

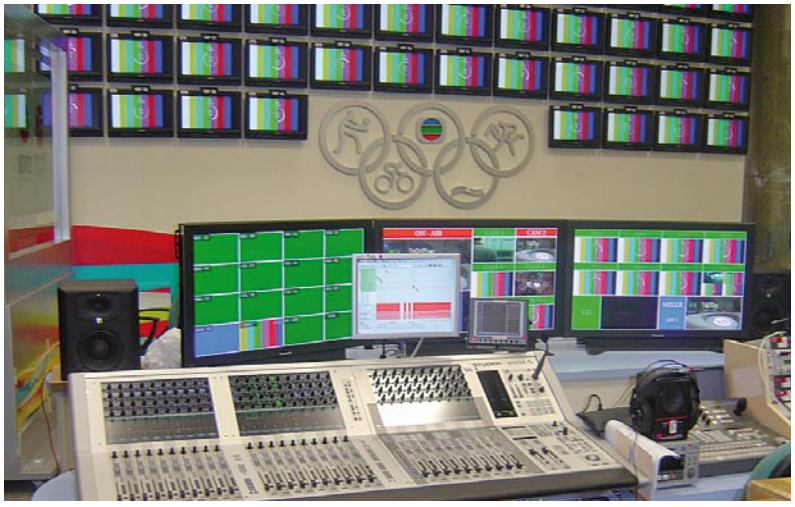
Bill Fertig FOH Engineer

VISTA 5™ SR
DIGITAL MIXING SYSTEM

STUDER
professional audio equipment

A Harman International Company

Studer at the Beijing Olympics



Tibor Tamas

The stunning Beijing 2008 Olympic Games involved a total of 10,500 athletes competing in 302 events in 28 sports. The Games took place in 37 sporting venues located in Beijing, Tianjin, Hong Kong, Qingdao, Qinhuangdao and Shanghai and a huge Broadcast infrastructure with unprecedented levels of broadcast equipment was required to bring the games to the rest of the world – and Studer was there in a big way with a total of 47 Studer consoles providing 'Gold Medal Studer Sound'.

Studer consoles were used in HD OB Trucks providing international sound for the world feeds to BOB (Beijing Olympics Broadcasting), at the IBC (International Broadcast Center) and for local Chinese Olympic broadcast. The list of consoles is impressive:

- **17 x Vista 5**
- **1 x Vista 6**
- **1 x Vista 7**
- **11 x Vista 8**
- **15 x OnAir 3000**
- **2 x OnAir 1000**

Studer consoles at the IBC (International Broadcasting Center) included:

TVE (Spain) – 3 x Vista 5 (42 Fader).
TVB (Hong Kong) – 2 x Vista 5.
TV Bandeirantes (Brazil) – 2 x OnAir 3000.
DR (Danish Radio) – 1 x OnAir 3000.
MBC (Korea) – 1 x Vista 8.
SBS (Korea) – 1 x Vista 5 (42 Fader), 1 x OnAir 3000.
KBS (Korea) – 1 x Vista 5, 2 x OnAir 1000.
CCTV (China) – 1 x OnAir 3000 CCTV TV compound (also used for the Paralympics).
MSC (Swiss SRG Media Services) – 1 x OnAir 3000.

Studer consoles used for Chinese Broadcasting coverage included:

CCTV10 – 1 x Vista 7, Beijing CCTV Broadcast Center, On-air TV Studio.
CCTV HD OBVan – 1 x Vista 8, 1 x OnAir 3000
CCTV5 – 1 x OnAir 3000, Beijing CCTV Broadcast Center.
Jinan TV, HD OBVan – 1 x Vista 5, on-air TV Studio.
Dalian TV, HD OBVan – 1 x Vista 5, used in Dalian City.
CCTV – 1 x Vista 5, Beijing Olympic Green Tennis Court.
CCTV – 1 x Vista 5, Beijing National Aquatics Center, the Water Cube, swimming (also used for Paralympics).
CCTV – 1 x Vista 5, Peking University Gymnasium, Table Tennis.
CCTV – 1 x Vista 5, CCTV (new) Building, Broadcasting .
Qingdao Radio, – 1 x OnAir 3000, Radio Broadcast Studio in Qingdao.
CCTV – 1 x OnAir 3000, Beijing Wukesong Sports Center Baseball Field.
CCTV– 1 x OnAir 3000, Beijing Capital Indoor Stadium, Volleyball.
CCTV – 1 x OnAir 3000, Beijing University of Technology Gymnasium, Badminton.
SMG – 2 x OnAir 3000, EFP (Electronic Field Package used in Shanghai and Beijing).
A Vista 5 was used for the Reception Banquet at the Great Hall of the People for the World Leaders and Live Broadcasted on CCTV9.

To provide the broadcast infrastructure and the international Radio and Television signals to the Right Holding Broadcasters (RHB), Beijing Olympic Broadcasting (BOB) was established in May 2004, as a joint venture between Olympic Broadcasting Services (OBS) and the Beijing Organizing Committee for the Olympic Games (BOCOG). For the first time in Olympic history the entire Olympic broadcast coverage (about 5,000 hours) was transmitted in High Definition.

The international live signals produced by BOB included the camera and audio signals and graphics generated at each venue as well as coverage of the opening and closing Ceremonies.

The international signals were transmitted from venues to the International Broadcast Center (IBC) where radio and television Rights Holding Broadcasters tailored the pictures and sound to meet their own requirement and transmitted the signals to their individual countries via optical fibres or satellite. BOB selected and tested 55 HDTV OB Vans and 7 Audio Vans located at the different venues. Studer was prominently represented:

- SBP (Italy) OB6 – 1 x Vista 8 (OSC Gymnasium, Handball).
- SBP (Italy) OB24 – 1 x Vista 5 (OSC Gymnasium, Handball).
- NRK (Norway) HD1– 1 x Vista 8 (University of Science and Technology, Judo and Taekwondo).
- Japanese production team from Fuji TV – (rent to Prisma OB).
- DIGI TV/Prisma OB (Germany/Sweden) – 1 x Vista 8, Shunyi Olympic Rowing-Canoeing Park and BMX at the Laoshan Bicycle Moto Cross (BMX) Venue.
- SFP (France), CP740 – 1 x Vista 8, Cycling Finish Lane, Badaling Great Wall and the Men's Marathon.
- VCS (France) – 1 x Vista 8, Chaoyang Park Beach Volleyball Ground.
- BTV (Beijing TV, China), – 1 x Vista 8, 1 x OnAir 3000 Modulo, Worker's Stadiums, Soccer and Olympic Soccer Final in the National Stadium (Bird's Nest).
- HLJTV (Heilongjiang TV, China) – 1 x Vista 8, 1 x OnAir 3000 Modulo, Beijing Olympic Green Tennis Court.
- TJTV (Tianjin TV, China), Audio Van – 1 x Vista 8, Tianjin Olympic Center Stadium, Soccer.
- SMG (Shanghai Media Group, China) HD Van – Shanghai Stadium, Soccer.
- Guangdong TV (China), HD Van – 1 x Vista 8, Qinhuangdao Olympic Sports Center Stadium, Soccer.
- Inner Mongolia, HD Van – Vista 5, Bicycle road.

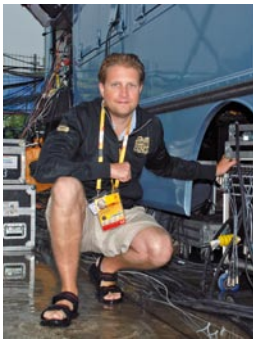
The trucks had to provide three different audio mixes; Surround 5.1 for TV, Stereo for TV and Stereo for Radio broadcast. The VandA (Video and Audio) from the trucks was delivered to the TOC (Technical Operating Center) located on the BOB Broadcast compound at each venue). The TOC acted as the BOB broadcast hub and transmitted the VandA circuits to the CDT (Contribution, Distribution and Transmission center) at the IBC via fibre optic contribution networks provided by CNC (China NetCom – BOB telecommunication partner). BOB provided and operated the required optical terminals (encoders and decoders) for the uncompressed HD SDI and/or SD-SDI signals between the Beijing venues and the IBC. VandA from Venues outside Beijing was transmitted to the IBC via MPEG-2/DVB encoding under 4:2:2 MP@ML (for SD-SDI) and 4:2:2 MP@HL (for HD-SDI) over CNC's national wide SDH network (SDH = Synchronous Digital Hierarchy, network over single mode optical fibre).

At the TOC and the IBC the VandA signals were monitored and then provided via the CDT to the RHB (Rights Holding Broadcasters).

The Commentary and Coordination Audio Network was another link between the IBC and the venues. This was a bi-directional, 4-wire network between the Commentary Control Room (CCR) at the venues and the Commentary Switching Center (CSC) located at the IBC. CSC received the international Radio signal from the venues and distributed them to requesting RHBs at the IBC.

BOB provided, installed and operated all the required terminal equipment like Audio Codec, Multiplexers, Patch Panels, and Network Management etc.

Mikael Ahnlund was the AIC (Engineer for Audio in Charge) with the DIGI TV truck used at the Shunyi Olympic Rowing-Canoeing Park and at the Laoshan Bicycle Moto Cross (BMX) Venue. He explained the Microphone setup and how the different mixes where achieved and fed to the world.



Mikael Ahnlund in the Beijing rain

Three different microphone settings were used to capture the ambient sound of the athletes and the audience. Stereo and mono shotgun MIC's where placed near the place of action (e.g. around the racing track of the BMX competition, near the wild water course) to get close sounds from the athletes. Stereo Shotgun MIC's were mounted on the video cameras as well.

To get the audience in surround, two AB stereo shotgun microphones and one mono large diaphragm microphones were mounted on tripods. The high tripods were placed near the audience hanging over the first rows of the bleachers in all four corners of the venue. The two AB stereo shotgun microphones were panned to the front channels and large diaphragm microphones were panned to the rear left respectively rear right channel.

The microphone ambience signals had to be mixed in three different versions:

TV Stereo mix: All microphones were used except the large diaphragm mics.
TV Surround mix: This mix was the stereo mix plus the large diaphragm mics panned to the rear channels. Center and LFE were only used in the opening and closing capture. For BMX and canoeing the LFE channel was not used at all. But of course in other sports the LFE channel was used, for example in the velodrome (cycling) where LFE sounds were delivered. The centre channel was left empty to leave space for the commentary. No stereo down mix was allowed .

Stereo Radio Mix: In this mix large diaphragm microphones were used. BOB requested the radio sound to be available one hour before and one hour after the last competition without the opening and closing capture and the close-up athletic microphone. To do this mix we used a stereo AUX. The radio mix ended up at TOC from where it was provided to CCR.

A total of 4 times 8 channel audio for TV were provided to the TOC and then to CDT:

- Audio PRG Main feed for TV – 4 AES pairs (TV Stereo, Front L/R, Centre/LFE and Rear L/R)
- Audio PRG Backup feed for TV, – 4 AES pairs (TV Stereo, Front L/R, Centre/LFE and Rear L/R)
- Video PRG Main feed, with 8 channel embedded audio (CH 1-2 TV Stereo, CH3-4 Front L/R, CH 5-6 Centre/LFE, CH 7-8 Rear R/L)
- Video PRG Backup feed, with 8 channel embedded audio (CH 1-2 TV Stereo, CH3-4 Front L/R, CH 5-6 Centre/LFE, CH 7-8 Rear R/L)

In addition 2 Radio stereo feeds via AES pairs were provided to TOC and CCR, one PRG Radio main feed and one PRG Backup Radio feed.

The German DIGI TV truck was operated by a Swedish team from Prisma OB and Swedish freelancers, and the Olympic production team was from RTV SLO Slovenian (Radio Televizija Slovenija).

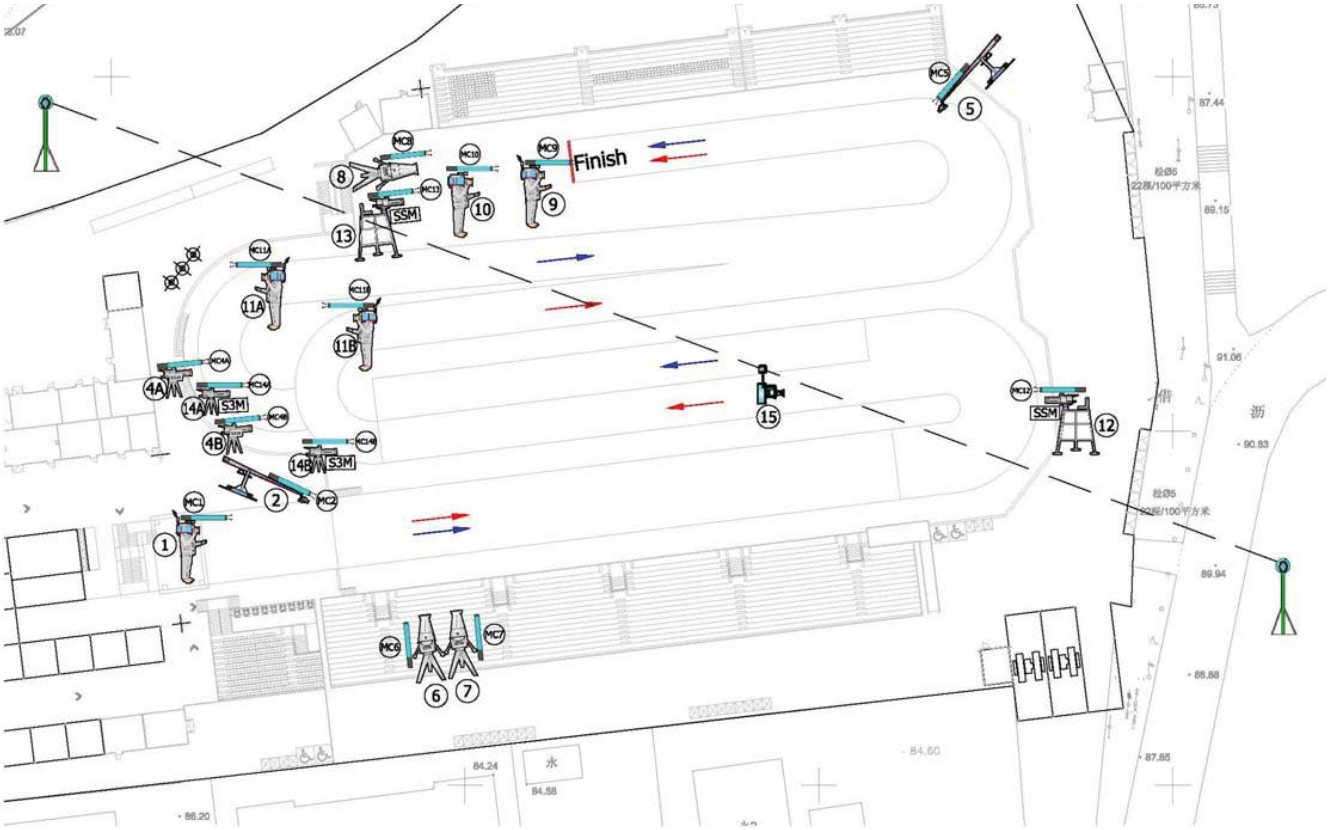
Mikael Ahnlund explained: "As well as having the great Studer sound it was really nice to have a Studer Vista because it's so easy and fast to move input channels to another fader on the desk when the director changes the camera position." Many thanks to Mikael Ahnlund for his feedback!

As we had so many Studer consoles at the Beijing 2008 Olympic Games, Studer provided local 24/7 support in Beijing manned by two Studer customer support engineers (Christoph Wirth and Tibor Tamas) and provided additional spares onsite in addition to the local spare parts stock already in place with ACE (Advanced Communication Equipment, Studer's representative in China). Studer customers were also provided a 24/7 local Chinese hotline number to access the provisional Studer headquarters which were about 15km from the main Olympics Birds Nest (National Stadium) and the Water Cube (National Aquatics Center) and other venues.

l-r: Aljosa Ertl, Mikael Ahnlund, Ales Koman

ACE also provided great support for their customers and added T.C Wong as (ACE Support Engineer and Chinese interpreter) and Roger Hayler (Technical Director ACE) to the Studer support team.

Camera Mics at the BMX track



OnAir 2500

Compact Digital Broadcast Console

Totally integrated On-Air/Production console with integral DSP, I/O and power supply.

60 YEARS
STUDER
OF EXCELLENCE

High resolution OLED channel displays

A completely self-contained and highly portable solution for broadcast, incorporating the same Touch 'n' Action user interface as the OnAir 3000, high-resolution OLED displays on every channel, and expansion to cater for various additional I/O formats.

The OnAir 2500.
Mobile broadcasting has never been so easy.

STUDER
professional audio equipment
A Harman International Company

www.studer.ch