
DFC
Gemini


13 going on 30
Against the Ropes
Alfie
The Big Bounce
Bridget Jones: The Edge of Reason
Connie and Carla
Dirty Dancing: Havana Nights
Fahrenheit 9/11
The Girl Next Door
Harry Potter
Robots
I, Robot
The Incredibles
King Arthur
The Last Samurai
Million Dollar Baby
New York Minute
Mooseport
The Perfect Score
The Polar Express
The Princess Diaries 2: Royal Engagement
Racing Stripes
Raising Helen
Scooby-Doo 2: Monsters Unleashed
Secret Window
Shark Tale
Shrek 2
Sky Captain and the World of Tomorrow
The Stepford Wives
Starsky & Hutch
The Day After Tomorrow
Torque
Veer-Zaara
8 Mile
The Matrix Reloaded
Tears of the Sun
Signs
Pirates of the Caribbean
The Pianist
Old School
Master and Commander: The Far Side of the World
Lilo & Stitch
Sub-Zero Heroes
Ice Age
Hulk
Finding Nemo
Daredevil
Ghost Ship
Nature Calls
Brother Bear
Gangs of New York
Die Another Day
Chicago
Vin Diesel
Blade II
Star Wars: Episode II
Stuart Little 2

DFC Gemini - The Definitive Film Console

The result of extensive research and development work with major motion picture facilities, the **Academy Award winning DFC Gemini** is by far the most accomplished digital mixing console designed specifically for multi-format film dubbing and post-production.



With an unrivalled installation base, DFC is the choice of the world's premier motion picture facilities, including **Buena Vista**, **Todd-AO**, **Pinewood Studios, De Lane Lea, Skywalker Sound** and **Warner Bros**. In smaller configurations it makes the ideal focus for growing studios who can share the experience with these impeccable names.

Operational and file compatibility with the world's most successful and prestigious studios gives DFC Gemini facilities a huge business advantage. The DFC has international recognition within film production companies, international film distribution, top class film mixers as well as the **Academy of Motion Picture Arts and Sciences**. This places DFC equipped facilities in a completely separate class world-wide.

The DFC is the first choice for sound on many of today's Hollywood blockbusters. Engineers, operators, producers and directors alike cannot fail to be impressed by the DFC's endless credit list which boasts: *Robots... Million Dollar Baby... Racing Stripes... The Incredibles... The Polar Express... Bridget Jones... Shark Tale... Sky Captain and the World of Tomorrow... Alfie... King Arthur... I, Robot... Harry Potter and the Prisoner of Azkaban... Shrek 2... The Day After Tomorrow... The Last Samurai...* and many more.





As well as an endless credit list the DFC also boasts a comprehensive list of film mixing features which easily outweighs the feature lists of competitive consoles. Continual innovation and development combined with proven reliability have sustained the DFC's position as the number one choice for film mixers world-wide.



Buena Vista



Todd-AO

Better Sound, Greater Control

The DFC feature list is the benchmark for digital consoles. **Over 200 new features** have been implemented in the DFC since it's launch - leaving other manufacturers way behind.

Designed specifically for mixing sound to picture

The DFC has been designed from the outset as a mix to picture console whereas other multi-purpose consoles are often compromised in film-specific features. AMS Neve's experience in developing digital mixing to picture consoles spans over 15 years which gives the company an unassailable lead in the market place.

Better Sound

AMS Neve is synonymous with the highest audio quality available. Time and time again users refer to the audio quality and the power of the equalization tools at their disposal - fully parametric EQ with +/- 24dB, powerful filters offering up to 24dB per octave and legendary dynamics.



Greater Control

The surface is *the* most flexible in the industry as any channel strip can control all the resources on a mono, stereo or up to eight channel inputs. The DFC can be configured according to the facility or project's needs - place compressors and inserts on mix busses or simply increase the number of channels in an instant by re-distributing the DSP.

Ease of use

The DFC is an easy transition for any mixer. The depth of features may be explored and exploited when required, and do not get in the way of a simple well thought out user interface. Through ease of use AMS Neve's DFC has arisen as the market leader in predominantly freelance markets.



Console Surface

For such a large number of inputs to be accommodated within a realistic working footprint, the console surface is semi-assignable with signal paths and functions such as EQ and Dynamics mapped to provide fast and intuitive operation. You mix with your hands and ears, not your eyes, so there's no need to rely on surface screens.

The surface may be configured for single operator mixing or up to three separate mixing positions. Each operator position can be configured with a scalable number of channel strips, master section, machine control, 8-band EQ and joystick modules. The DFC is unique in offering the ability to define controls which are shared or segregated to each partition. This can be changed for each session.



Designed for Performance

AMS Neve's unparalleled digital audio experience has resulted in endless unique design features. Each provides maximum performance plus a range of practical benefits.

Examples include:

- **WavTrak™**
  Display of audio track data by channel, the most significant innovation of its type since scrolling waveforms. **WavTrak metering** is unique in providing the user with level and dynamics metering, graphical EQ curve and audio waveform information on a path by path basis.



- **Powerful Mix Engine**
  The latest generation of DSP provides up to **1000 mix paths** at **24bit/96kHz** making the DFC the most powerful console for film and post production.

- **Any channel can be a mono, stereo or predub input**
  Mono, stereo or multi-channel predubs can be handled on a single fader. The number of multichannel inputs can be varied to suit the needs of individual projects. The amount of facilities on multichannel inputs can also be selected from full facilities (EQ, Filters, Dynamics) to level only.

- **AMS Neve's patented Logicator**
  The Logicator control is one of the **most admired features** on all AMS Neve Logic consoles. This patented design provides an instant visual reference to each knob position through an integral fibre-optic display. Knob settings are easily visible at a glance and, when automation moves are replayed, the controls give the appearance of movement.

- **Touch-sensitive controls**
  All mix controls are touch-sensitive, making it easy to record changes in the mix automation at any time.

  Touch sensitive controls contribute to an easy and intuitive automation system. No complicated key presses required to record automation.

  Autoglide automation makes it easy to update or modify the mix. Just grab the control and your change will be stored; let go and it will automatically glide back to its previous value.

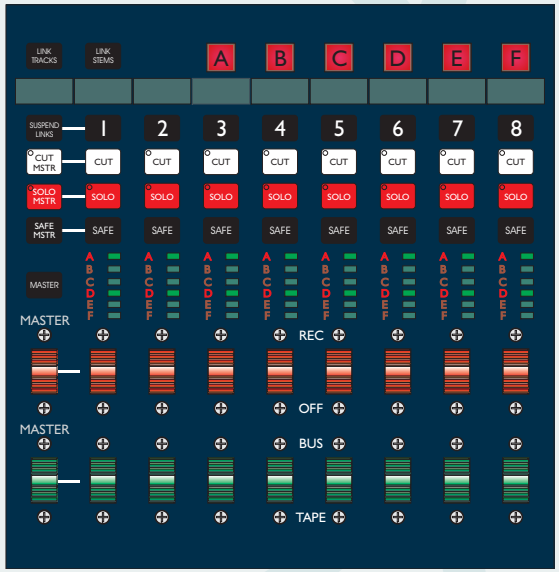
  Copying channel information could not be simpler - just touch the control you want to copy and select your channels.

Multi-Format Surround

The DFC is capable of surround panning in any of the current or foreseeable formats.

Panning is achieved either locally on a channel strip or via assignable joysticks which can control any channel or group of channels for complex moves.

A sophisticated 120 x 8 monitoring section is provided with inserts for surround processors and direct playback returns. The panning format of the mix busses is user defined, and multiple PEC/Direct monitoring and recorder control panels may be connected to the console surface.



Integral Machine Control and Synchronization

Machine control is an integral part of AMS Neve consoles, providing a complete integrated studio solution.

Six serially controlled machines may be connected directly via Sony P2 protocol using six RS422 ports. The system may be extended to up to 33 machines, including parallel-controlled devices, via additional AMS Neve ES2 synchroniser modules. The system also supports the Lynx (VPR3) protocol.

A dedicated panel on the console provides keys for all transport functions - up to three panels can be connected to the console surface.



Desk Plug Ins

AMS Neve are offering a range of desk plug ins tailored to suit the needs of mixers. An initial suite of three plug ins is available:

Neve Classic EQ offers a high class emulation of the formant spectral EQ used on both the analogue V series consoles and the acclaimed Capricorn digital consoles. It provides additional creative possibilities and is a perfect compliment for the clarity and control of the standard AMS Neve EQ algorithms.

Multi-band Dynamics provides compression and expansion controlled across three independent frequency bands. Suitable for de-essing, detailed voice and vocal processing and track mastering.

Bass Enhancement produces programme dependant low frequency harmonics, an essential tool for creating sub-bass tracks in film mixing, surround post-production and music for DVD. This removes the need for outboard units and brings the whole process under Encore Plus™ Automation control.

Encore Plus™ Automation

Encore is the most advanced automation package used in world class Feature Film Mixing Studios, Television Post Production Studios and Music Studios.

Encore Plus is the latest generation of the acclaimed Encore software. Along with a number of automation enhancements, Encore Plus delivers several major new features including Reconform, Automation in Stop, Mix Audition and Star Command remote control of digital audio workstations.



Automation Reconform is a highly significant development. It is becoming increasingly common for pictures to be re-cut right up to and beyond the last possible moment. In the past this became frustrating as mixes had to be rerun from change points.

Now change lists can be taken into Encore Plus and the mix automation cut and spliced automatically to reflect picture changes. This significantly reduces the work load on the Mixer as pictures are re-cut as well as allowing greater freedom to the Director who can now continue to make creative changes right up to the dub without disrupting the mixing process.

The Star Command control system enables automated control of connected Pro Tools™ systems, including plug ins, from the console surface via HUI™. The console can also control Nuendo™. Star Command also implements the Oasis™ standard which gives tight and comprehensive control over Pyramix™ workstations. Multiple DAWs can be controlled from a single desk.

Encore Plus also incorporates Session Import which allows mix data from a Pro Tools 5.0 Session™ to be imported into the console.

Encore Plus uses a combination of updated operating system, new software and new connection to provide far greater speed. Saving and loading mixes, autosave, mix audition and similar tasks are up to fifty times faster than in Encore.

Encore Plus is supplied as standard on all new DFC Gemini consoles.

CineFile

CineFile is a robust, purpose built, expandable dubber / recorder designed for the new generation of workflow inspired mixing theatre. CineFile offers a unique combination of high sound quality, efficient media management, simple scalability and cutting edge performance. CineFile gives easy expansion by allowing slave units to be daisy-chained from the master, creating a very wide sync-locked dubber



Integrated Operation

- WavTrak channel waveform display
- Complete control from Encore Plus™ automation
- Arm from Pec Direct panel
- Track slip and track swap from desk
- WorkFlow and StarNet integration
- Single controller for multiple units
- DFC Gemini's WavTrak metering provides level and dynamics metering, pan position, EQ curve and audio waveform on a unique path by path basis

Audio Interfaces

The DFC Gemini uses MADI, an AES standard for Multichannel Audio Digital Interfacing. It provides significant benefits, including ease of connection and cost savings.

56 channels of digital audio data are transmitted on one cable. Standard interfacing with a digital recorder therefore requires just two cables; one for the inputs, the other for the outputs.



MIOS96 I/O Unit

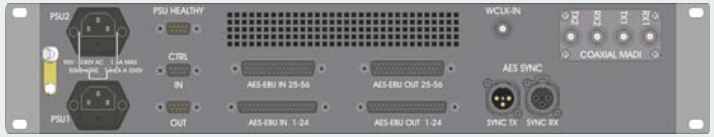
- MIOS96

The Modular I/O System 96 delivers 24 bit, 96kHz or 48kHz/44.1kHz resolution in a precision engineered package. MIOS provides definitive Neve quality audio at the critical first stage of audio acquisition.

Each compact 4U MIOS rack houses up to 6 hot-pluggable modules with a range of analogue and digital I/O formats. Connection to the console is via MADI, the industry standard multi-channel audio connection. Dual redundant power supplies are incorporated and are removable from the front of the rack.

MIOS allows I/O resources to be shared between consoles allowing maximum utilisation of studios and control rooms to meet the demands of production.





AES960 I/O Unit

- AES960

Input and Output Sample rate converting up to 56 mono inputs and 56 mono outputs at 48kHz or 96kHz.

All inputs and outputs are 24-bit and have up to a 3:1 Sample Rate Conversion ratio.

An intelligent AES interface with MADI connectivity and routing.

Case Studies

DFC consoles are installed at a variety of facilities in the UK meeting the needs of post & film professionals.

Pinewood Studios, UK has been at the forefront of international film production for over 60 years and chose the DFC to replace an SSL desk in Theatre 1. In only a matter of months following its installation the DFC had mixed three feature films.

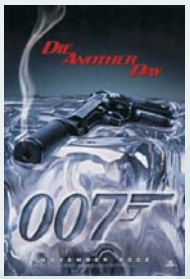
For Pinewood's Head of Sound, **Graham Hartstone**, the DFC was the obvious choice: *"AMS Neve has a long history of producing digital consoles. Our experience with the Logic 2, plus the expansion of the operating surface to accommodate feature film mixing, made the DFC the obvious choice for today's fully automated digital requirements."*

Pinewood Studios reconfirmed its position as one of Britain's premier post production facilities when it started work on the much-anticipated film *Thunderbirds*.

In *Thunderbirds* sound plays a vital role, providing atmosphere and narrative. To accomplish this *Thunderbirds* was mixed by **John Hayward**, on their **68 fader, three position DFC console**.







The console has already played host to a number of blockbuster movies including *Tomb Raider 2* and *Die Another Day*.

AMS Neve sound featured on the latest James Bond movie, *Die Another Day*, produced by Eon Productions, Michael G Wilson and Barbara Broccoli, with Pinewood Studios' DFC being chosen for the final mix and the 88R at Air Studios scoring the soundtrack.

According to John Hayward the DFC is ideal for the mix: *"The fact that the DFC is specifically designed for film mixing is why we chose it in the first place – the Bond film put the DFC through its paces using the excellent features provided, proving that in our opinion* ***the DFC is the Rolls Royce of mixing consoles.****"*



Pinewood Studios

De Lane Lea Soho

With a reputation second to none, **De Lane Lea** is a very successful company with a long-standing history in film.

In 2004 the premier film facility installed a **DFC2 console** and have recently installed a **brand new DFC Gemini console** to support heavy demand for film mixing.

The Technical Operations Manager of De Lane Lea is very positive about the consoles.

"We are very excited to be upgrading to AMS Neve's DFCs, not only for the vast increase in technical capabilities of the console but also for the added kudos of offering our clients the definitive film console, the DFC."

According to De Lane Lea, when assessing the various consoles on offer, AMS Neve's DFC was the only console to live up to the demands of today's film mixing needs.

Following installation the DFC2 console went straight to work on mixing the sound for *Harry Potter and the Prisoner of Azkaban*, a project ideally suited to the DFC's superior power and features. Mixers were **Mike Prestwood Smith**, **Mathew Gough** and **Michael Semanick**.

Read an interview with Mike Prestwood Smith on mixing Harry Potter 3 at **http://www.ams-neve.com/news/news2004/mike_interview.htm**







DFC Gemini at De Lane Lea

Premier facility, **Grand Central Sound Recording Studios** have recently installed another **four DFCs** at their new premises in Great Marlborough Street, W1. This latest installation extends the long established relationship between AMS Neve and Grand Central.

For Grand Central's Technical and Financial Director, **Ivor Taylor,** the DFC was the obvious choice for supporting the successful facility's major expansion.

"We have been very pleased with our existing DFCs. The versatility and capacity of the console allows our engineers to spend the time booked on the mix rather than wasting time trying to make the desk do things its not designed to do or capable of doing."

Managing Director, **Carole Humphrey** adds *"Compatibility across rooms was a key factor in choosing DFCs again. The combination of DFCs, AudioFiles and Starnet™ has been seamless and we decided to keep that structure when making the purchasing decision for the new rooms. Clients get what they want when they want it; and the quality of life for the backroom staff has improved significantly. Now, they even go home at night!"*

The new DFCs form part of Grand Central's plans to expand their already impeccable post-production services. The additional rooms will enable Grand Central to offer facilities for film and long-form TV as well as commercials.

This latest delivery brings Grand Central's count of DFCs to eight, making the facility the largest single owner of DFCs in Europe. Grand Central's confidence in AMS Neve was a critical factor in making this commitment. Taylor says:

"During the eight years that we have worked with AMS Neve, despite the inevitable ups and downs, we have found the Company to be responsive and diligent in the service and developments area. We often need an instant fix and we usually get it."

Raja Sehgal, Chief Dubbing Mixer at Grand Central Recording Studios has been working on the latest **Nike** commercial starring Thierry Henry. The project took place at their new Great Marlbourgh Street premises on one of their 8 DFCs.

Grand Central's other clients include the **BBC**, **Vodafone, John Lewis, Toyota** & **Coca Cola**.



Raja Sehgal working on the latest Nike commercial

The DFC has made its mark in Europe as the only choice for film facilities.

Since installation of their DFC, **Société Industrielle de Sonorisation (SIS)** have been confident in their choice of console. With an impressive list of projects under their belt, the Parisian facility haven't looked back.

According to SIS' Commercial Director **Florence Abiven:** "*The DFC is remarkably well built, its control surface is incredible (**you just can't compare it with any other consoles**), you can basically do what you want with it. I am very impressed to see that customers are actually asking for the DFC as well as our studio.*"

As the centrepiece of **Audi D**, the DFC has already been a huge success for the facility, "*Since installation we have worked around the clock on several large international productions. Audi D is already fully booked until the summer! We are delighted with the success SIS is already gaining with Audi D attracting an expanding clientele and now the international DFC fans.*"



SONOBLOK S.A. in Barcelona is all set to tackle the challenges of the 21st Century with the installation of the DFC. On installation, Sonoblok wasted no time putting the DFC to work on final mixes and pre-mixes of films, with original sound production as well as major foreign versions.

There is no doubt that the DFC is ideally equipped to cope with this work as Technical Director **Richard Casals** explains: "*The transparency of the compressor chain and the power of the EQ gain means the DFC is focussed on film work. The assignability of the processing power is a great advantage and a very clever feature - producers and sound editors really appreciate this!*"



Richard Casals at the DFC

Technicolor Sound Services, Italy have ordered a fourth DFC console for their famous Rome facility. Formerly known as International Recording, the studios have provided mixes for many of the famous names in Italian film including Federico Fellini, Lucino Visconti, Franco Zeffirelli and Bernado Bertolucci.

Joinville Studios, France have upgraded the DFC console in Audi 9 Boulogne. The 120 fader console now handles up to 800 mix paths.



Joinville Studios

Other DFC facilities in Europe include **France 3** and **GLPIPA** in France; **Berliner Synchron**, **Film und Fernseh**, **Konken Studios** and **Studio Funk** in Germany and **Soundtrack** in Spain.

Premier US facilities continue to rely on the DFC Gemini to mix the biggest blockbusters.

A **major Hollywood facility** will shortly be equipping new studios that will maintain and extend their reputation at the forefront of film mixing. After careful consideration of their needs on forthcoming film productions, this leading Hollywood studios has chosen to order **three DFC Gemini consoles** from AMS Neve.

The new consoles will be larger than any previously installed. Each of the 96 fader, three position consoles, will be equipped to provide 800 mix paths at 96kHz. The DFC Gemini consoles can deliver these requirements from a single mix engine.

"The demands of film sound have grown steadily," comments **Huw Gwilym** of AMS Neve, *"Hollywood has assessed future requirements and concluded that they need the most powerful film consoles available to continue to deliver consummate film soundtracks."* Huw continues *"DFC Gemini, the third generation Definitive Film Console from AMS Neve, can deliver the power, sound and features required"*.

The facility has a long association with the DFC range of film mixing consoles. This latest order confirms the DFC's position as the Definitive Film Console and the first choice of film mixers worldwide.



Sound One in New York have recently installed **two DFC Gemini consoles** taking their total number of DFC's to six.

The two new 48 fader DFC Gemini consoles have replaced analogue Neve VR60's. They have substantial I/O and processing power enabling them to handle a wide range of jobs without restriction.

Sound One have a successful record of work on blockbuster movies with their existing DFC consoles. The newly refurbished rooms will be used for a variety of top end TV and film post work.



Sound One

Skywalker Sound continue to produce stunning mixes on their DFC consoles including Academy Award nominee 'The Polar Express' mixed by Tom Johnson.





Skywalker Sound

Following the successful installation of their first 80 fader DFC Gemini, **Shaw Studios, Hong Kong** have ordered a second.

Technical Director **Eric Stark** is confident this investment will attract filmmakers from around the world. *"Because of the high standard of facilities on offer not only will we be looking at users from Hong Kong, but also from overseas."*

Huw Gwilym of AMS Neve adds *"This technology advancement was valuable to HKMC, and having the highest quality consoles where it matters defines their international status."*

Following the making of an historic film library with over 800 titles including many classic martial arts movies, Shaw Brothers is now investing in the next generation of Asian talent.

The new 69,675 square metre facility is being built in Tseung Kwan O not far from Movie Town, Shaw Brothers historic home and the launch pad for the careers of many world acclaimed talents. *"Movie City will definitely attract a lot of overseas producers to Hong Kong."* says **Alfred Cheung Kin-ting**, producer of Hong Kong film star Jackie Chan's movie *Highbinders*.

The DFC was the first choice for **Showreel Film Facilities** when they chose to replace a Soundcraft console and refurbish Studio A at their facilities in central Hong Kong.

Director **Benny Chu** couldn't fail to be impressed by the DFC's award-winning capabilities: *"AMS Neve's DFC was selected after a comprehensive review of all the available options, both analogue and digital. The DFC is user friendly and gives us the opportunity to exchange data with other studios world-wide. The DFC is the standard for film mixing around the world and this obviously played a part in the decision making process."*

As well as mixing feature films Showreel will also use the DFC to work on television programmes, commercials and DVDs.

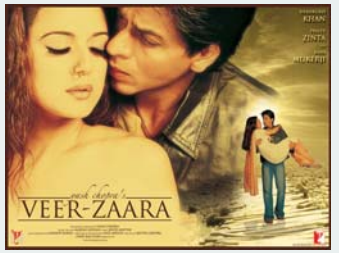


Yash Raj Films have confirmed the largest order for audio equipment ever placed by an Indian film company.

Founded in 1971, Yash Raj Films is the brainchild of **Yash Chopra** whose directorial career spans forty years at the top of the vibrant Indian film industry. Romance, drama, adult emotions and stunning music have been his hallmark as trends have come and gone in Bollywood.

The main room is the Film Theatre. This will feature a **40 fader DFC** and an integrated AudioFile recorder/editor. **Anuj Mathur**, Film Mixer at Yash Raj states "*I used the DFC at Gaurav Digital as a freelance mixer. The DFC is the only possible choice for reputation, facilities and sound quality. The final output is all that matters, the DFC gives the best possible output.*"

Yash Chopra's latest blockbuster *Veer Zaara* was mixed on one of the eight DFC consoles at **Grand Central Studios**, UK and on the DFC at the visually stunning **Sound City, India**.



DFC Users Worldwide

- 20th Century Fox, USA (3)
- BBC Wales, UK (2)*
- Berliner Synchron, Germany (2)
- Boom Studios, UK (2)
- Buena Vista Sound, USA (3)
- Cineberti, Belgium*
- De Lane Lea, UK (2)*
- Digital Cinema, USA
- Film und Fernseh Synchron, Germany
- Films at 59 Ltd, UK (2)
- France 3, France (2)*
- Future Post, UK*
- Gaurav Digital, India
- GLPIPA, France (2)
- Goldcrest, UK
- Grand Central, UK (8)*
- HBO, USA
- IMAGICA, Japan (2)
- International Recording, Italy (4)
- Les Auditoriums de Joinville, France (3)*
- Lip Sync Post, UK (2)*
- Maidstone Studios, UK
- Konken Studios, Germany*
- NHK, Japan
- Nikkatsu, Japan
- Nordisk Film, Denmark
- Oasis Television, UK
- Pinewood Studios, UK*
- Shaw Studios (HKMC), Hong Kong (2)
- SIS, France
- Showreel, Hong Kong
- Skywalker Sound, USA (3)*
- SONOBLOK S.A., Spain
- Sound City (Empire Audio), India
- Sound One, USA (4)
- Soundtrack, Spain (2)*
- St Anne's Post, UK*
- Studio Funk, Germany
- Studio L'Equipe, Belgium
- Todd-AO, USA (4)*
- Toei, Japan
- TOHO Studios, Japan
- Tokyo TV, Japan
- TWI, UK
- Viba Film, Slovenia
- Videosonics, UK (3)*
- Warner Bros., USA (9)
- WFDiF, Poland*
- Yash Raj Films, India*
- Yorkshire Television, UK*
- *denotes facilities which also own other AMS Neve equipment



Yorkshire Television, DFC Gemini

DFC Wins Scientific & Engineering Award

AMS Neve was delighted to collect a Scientific and Engineering Award from the Academy of Motion Picture Arts and Sciences. Mark Crabtree, Huw Gwilym and Karl Lynch were presented with the award for the DFC console at a glittering ceremony in LA.

The award was given for the design and development of the AMS Neve DFC Digital Film Console for motion picture sound mixing.

The Academy of Motion Picture Arts and Sciences has recognised the AMS Neve DFC as the first fully digital audio mixing console specifically designed for post-production film mixing. The AMS Neve DFC allows the user multi-position mixing capabilities, stem routing predub inputs and other filmcentric attributes.





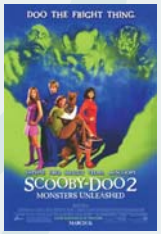














Projects

The DFC is the first choice for sound on many of today's Hollywood blockbusters including:

- Robots
- Hide & Seek
- Million Dollar Baby
- The Incredibles
- The Polar Express
- Bridget Jones: The Edge of Reason
- Alfie
- Veer Zaara
- Shark Tale
- Sky Captain and the World of Tomorrow
- Stepford Wives
- Fahrenheit 9/11
- King Arthur
- I, Robot
- Hellboy
- The Terminal
- Harry Potter and the Prisoner of Azkaban
- Shrek 2
- The Day After Tomorrow
- Scooby Doo 2
- Secret Window
- Starsky and Hutch
- The Last Samurai



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