

THE INSIDE TRACK

SONY CINEMA PRODUCTS CORPORATION

SALES SUCCESS OF THE DFP-3000 CINEMA PROCESSOR THROUGHOUT EUROPE

Following its outstanding success throughout North America and Canada, acceptance of the Sony Dynamic Digital System (SDDS) is sweeping across Europe.

From Ireland to Spain, the Continent has seen a major upswing in interest for the SDDS multi-channel release format. According to **Brian Kane**, General Manager of Sony Cinema Products' European office, "The dramatic increase in the number of installations throughout Europe can be attributed to a number of factors. Firstly, audiences are reacting strongly to the added realism that SDDS can bring to a major film release. Secondly, we now have a number of SDDS Recorders in

strategic cities throughout Europe and more to follow (see New Cameras article), which will help

local filmmakers prepare foreign-language releases more quickly and profitably for their territories."

"Designed exclusively for the motion-picture industry, SDDS is now regarded as the premium digital sound format by leading film directors, exhibitors and other sound professionals. New features offered by the DFP-3000 Cinema Processor mean that exhibitors can be assured of the highest reliability and playback quality available for today's sound-conscious moviegoers."

Throughout Europe, a number of recent installations underscore the increasing acceptance of the SDDS format.

Finnkino's Tennispalatsi Multiplex Theatre, Finland.

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Hollywood and International SDDS Report

Without a doubt, Sony Dynamic Digital Sound is revolutionizing the way that both filmmakers and audiences around the world appreciate movie soundtracks. In just a few short years, SDDS has become the industry standard for high-quality theatrical playback and is providing directors and re-recording engineers with a number of exciting creative opportunities.

"Several factors have contributed to the worldwide success of SDDS," offers **Gary Johns**, President/ COO of Sony Cinema Products Corporation. "While the initial requirement for SDDS was driven by sound conscious directors — who realized that an 8-Channel mix sounded more vital and exciting than a conventional four- or six-track offering — we have now reached a situation where both exhibitors and distributors are requesting SDDS releases. Now that we have more film recorders in various territories around the world, we can fulfill the increased demand for SDDS-encoded product."

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Warner Bros.' *The Iron Giant* is one of 500 features scheduled to be released in SDDS by spring of 2000.

New DFR-C3000 Cameras

For movie audiences, the availability of films with SDDS-encoded soundtracks is very much a "chicken and egg" situation. Without access to suitable movie releases, exhibitors cannot offer the product to their audiences. Without access to SDDS soundtracks, audiences do not realize that they're missing out on an enlightening audio experience.

But that dilemma is about to end. Four new DFR-3000 SDDS Encoding Systems are about to be installed in cities around the world. "Now we can offer a faster turnaround in Europe and North America," offers **Dennis Chobanian**, Product Manager, Recording Systems, SCPC. Film distributors also like to work with their favorite vendors, with whom they have developed a good working relationship.

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The SDDS DFR-C3000 Camera.



C O R P O R A T E F O C U S

S C P C S T A F F C H A N G E S



There are a number of new faces and changes of status throughout the international family of Sony Cinema Products Corporation. Several key appointments within the company's worldwide offices were announced recently by Gary Johns, President and Chief Operating Officer.

AKIRA NEMOTO has been named Senior Vice President, reporting to Gary Johns, with whom he will develop mid- and long-term strategic direction. Akira has been with Sony for some 30 years, holding a variety of positions in Japan (marketing/domestic sales); Hong Kong (non-consumer startup); and the United States (non-consumer startup and President of Sony Professional Products, Florida). Most



recently, he was responsible for direct sales of non-consumer products for Sony Marketing of Japan, the Japanese domestic sales organization.

BRIAN KANE has been named General Manager of Sony Cinema Products Europe (SCPE), based in the Company's London office. In addition to his day-to-day responsibility for distribution, sales, marketing and technical support of the SDDS format throughout Europe, the Middle East and Africa, he will also be developing and executing long-range strategic planning. A native of Scotland, Brian is a 17-year Sony veteran and has held a number of administrative, sales, marketing and management positions within the Consumer, Computer Peripherals and Broadcast & Professional Europe organizations. Most recently, he served as Business Manager, Sound Creation for Sony UK, with responsibility for sales of profes-

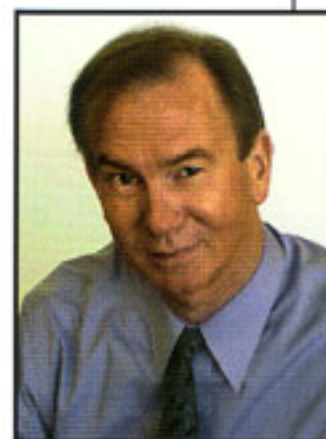
sional audio products as well as language systems, cassette duplication and business machines.

AL BARTON has joined SCPC as



General Manager, Customer Support, with responsibility for engineering, software development, post-production support and service. This group has a commitment to provide the highest possible level of support to our customers. Al is a 15-year veteran of Sony and has held a variety of positions within the Sony Broadcast and Professional Company in engineering, marketing and product management roles.

CRAIG CONNALLY has been appointed Director of Engineering, to spearhead SCPC's engineering initiatives, as well as support new-product development. Craig founded the professional audio console manufacturer, Neotek, now a division of Martinsound, Inc., where he most recently served as VP of Product Development.



DAN TAYLOR has been named Vice President of Industry Relations, reporting to Gary Johns. A six-year veteran of SCPC, Dan has assumed the critical role of maintaining and strengthening the company's relations with film distribution, post-production and filmmakers regarding films encoded with the SDDS format. Dan also serves as President of the International Theatre Equipment Association (ITEA).

KATHLEEN DONOHUE has been promoted to National Sales Manager, North and South



America. She joined SCPC in March 1998 as Manager of Domestic Sales. In her new capacity, Kathleen will be responsible for developing and expanding the company's new sales force and philosophy. SCPC offers a growing line of innovative and versatile Sony products in addition to the SDDS playback systems, including video walls, video projectors, CRT monitors and flat-panel displays.

THERESA GORMAN has been appointed as Account Manager, reporting to Kathleen Donohue. Theresa is a nine-year veteran of Sony, most recently responsible for National Marketing Management of small-format video tape recorders into the broadcast, production and industrial markets. "Theresa's experience will prove helpful," says Kathleen Donohue, "as we continue to open the broad range of Sony product solutions into the cinema marketplace."

TOM PEARCY has been appointed Service Administration Supervisor, responsible for coordinating customer support operations of the service department at SCPC's Los Angeles headquarters. Tom joins the company from The Sony Gallery in Chicago.

"All of these individuals are truly integral to our team of sales, marketing, engineering and technical support professionals," says Gary Johns. "Their appointments and promotions will enable SCPC to reach its objectives of continued sales expansion, product-line development and enhanced customer support."



SCPC Profile

Sony Cinema Products Corporation supplies the motion-picture exhibition industry with advanced technologies and products. Based in Culver City, California, SCPC is a division of Sony Electronics' Business and Professional Company. BPC is a leading provider of video and audio equipment for the broadcast, production, corporate, industrial, government, medical and education markets. Sony offers a wide array of products and systems for image capture, production and display. Sony also provides specialized equipment and systems for data recording, duplication, electronic photography/publishing, video conferencing, high-definition video, interactive and security applications.

More recorders provide a wider choice of facilities. The end result is that we will have more ways of encoding SDDS soundtracks around the world."

New DFR-3000 SDDS systems will be installed at independent post facilities in Rome, Los Angeles, New York and Germany during the late-Fall. Installations at other facilities are also expected in the near future.

Developed by the B&P Company of Sony Corporation in Japan, the new DFR-3000 is a second-generation recording system that can be used to create master 35mm negatives for SDDS soundtracks. The system is comprised of two units: the DFR-E3000 Encoder, and the DFR-C3000 Camera. The encoder provides all essential audio-processing functions in a 3U rack-mount chassis. The camera mounts atop the commonly available Westrex Model 1231 analog soundtrack recorder and uses industry standard panchromatic negative soundtrack recording stock. Other platforms are currently in development.

The DFR-3000 SDDS Encoding System is controlled by Sony-supplied software running on a Windows-based PC. The combination of a DFR-3000 and an analog recorder enables the film-transfer facility to generate high-quality master SDDS negatives. "Although SDDS is universally regarded as the best-sounding digital soundtrack format," Chobanian con-

cedes, "the number of SDDS releases in overseas markets has been limited somewhat by the relative scarcity of SDDS encoding systems. The lower cost and availability of the new DFR-3000 will give film-sound transfer facilities worldwide the ability to make high-quality SDDS soundtracks."

Currently, 12 of the previous-generation DFR-2000 systems are in daily use around the world — six within post-production facilities throughout the greater Los Angeles metropolitan area. Within Europe, there are two DFR-2000 systems in London, one in France and one in Spain. The DFR-3000 retains full SDDS compatibility with the previous model, but features even higher audio performance, greater ease of use, smaller size and lower cost.

International Recording, Rome, a firm that for more than 40 years has offered a variety of post-production and related services to the Italian film, television and entertainment community, recently added an SDDS Encoding System. According to **Paulo Biondo**, VP and General Manager, the system was installed in September of this year and represents the first delivery for the country. The DFR Encoder will be utilized with an existing Westrex Model 1231 camera.

"There is now a pressing demand from all formats of audio soundtrack on a motion picture," Biondo offers. "It is a general policy throughout Europe that film companies need to include all formats; they cannot offer just one, since many movie theatres only have one playback format available. So we need to respond to that demand of clients who want to deliver the distribution company with multi-format prints as standard, so that there is a single inventory. Then any cinema can reproduce the appropriate digital soundtrack."

"There is increasing interest in Sony Digital Dynamic Sound throughout Southern Europe," Biondo says. "We can now handle local production, which will reduce time to market." Previously, films had to be sent to London for SDDS encoding. "Our recorder will also let us offer SDDS encoding for every film that comes through our facility which, in turn, will encourage theatres to introduce 8-Channel playback capabilities."

Initial deliveries of the new DFR-3000 SDDS Encoding System are scheduled to begin in the Fall of 1999.

Other stand-out features of the new DFR-3000 SDDS Encoding System:

- Second-generation SDDS recording system.
- Advanced professional ATRAC audio compression.
- Compact and energy-efficient design.
- Improved Graphical User Interface (GUI) for setup and system control.
- Accepts AES/EBU plus SDIF-2 digital format and analog inputs.
- Pre-selectable digital reference levels.
- Incorporates 8-Channel analog monitor outputs.
- Internal Run/Stop control that allows operation without external PC.
- Flexible digital audio sample rates.
- Internal audio-channel routing with ability to create preset configurations.
- DC cut filter implemented within DSP.
- Internal Density Patch generator.
- Dynamic user-bit from external floppy disc.
- Automatic log film recording to PC.
- Automatic diagnostics of speed.



The SDDS DFR-E3000 Encoder.

SONY DISPLAY PRODUCTS THROUGH SDDS INSTALLERS

With the coming revolution in Electronic Cinema, exhibitors are being asked to consider alternatives to traditional film projection techniques. Although "cinema-quality" projection is still around the technology corner, today's exhibitors will

find that current-generation electronic projectors can provide a cost-effective and exciting replacement for pre-show advertisements and for remote coverage of live events, sports events, conferences and similar gatherings. Also in entrance lobbies and food-vending areas, an increasing number of exhibitors are using

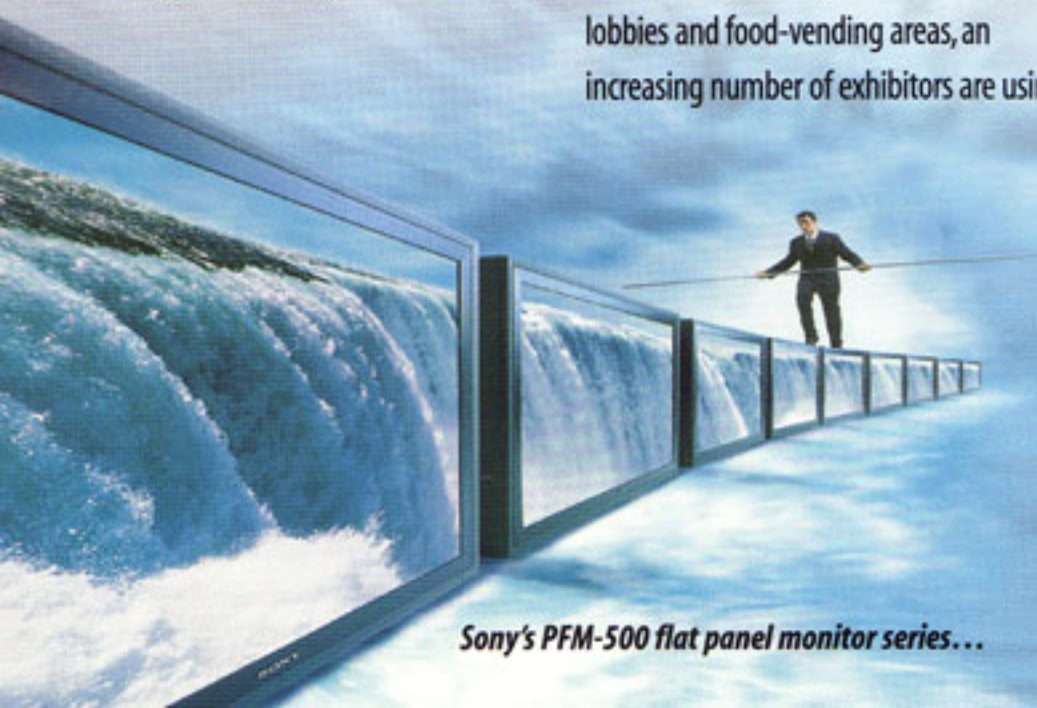
video displays to promote coming attractions and related events.

To provide such vendors with a spectrum of display options, Sony Cinema Products Corporation is finalizing a special arrangement that will enable US-based exhibitors to purchase Sony-brand CRT monitors, video walls, video projectors, flat-panel displays, VTRs and related systems via the current SCPC distribution channels. Currently, Sony Cinema Products Europe is making similar arrangements to address European exhibitors needs.

"We recognize that many exhibitors need to provide more than just film playback capabilities," offers **Bill Mead**, SCPC's Vice President of Marketing. "As a result, we are now making available a wide range of Sony video, presentation and computer-display products, including large-screen monitors, flat-panel displays, large-format video walls, VTRs and other components necessary for point-of-purchase, promotion and related applications."

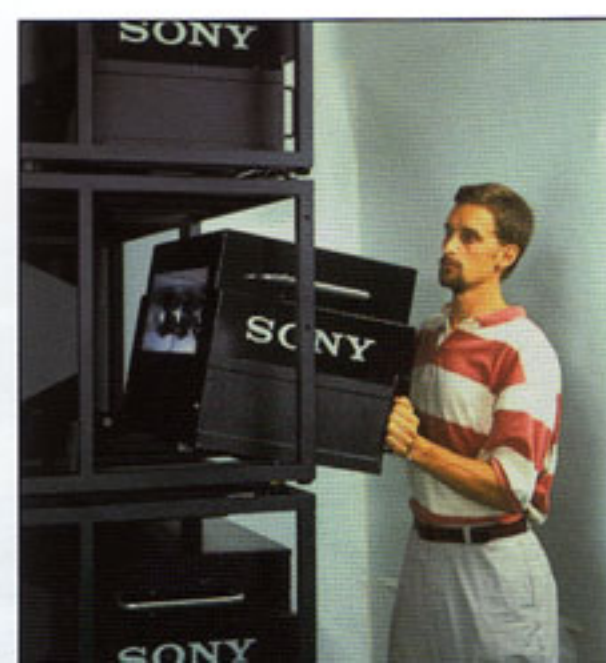
Sony Cinema Products Corporation's launch product —

the innovative Sony Dynamic Digital Sound (SDDS) — was introduced to the motion-picture industry in August 1994. More details of this unique one-stop sales advantage are available from your local SCPC office.



Sony's PFM-500 flat panel monitor series...

...and their RVP-511DS/511DMS video wall.



Hollywood and International

Continued from page 1

"Designed exclusively for the cinema industry, Sony Dynamic Digital Sound is regarded as the premium digital sound format by leading film directors and sound professionals. Throughout Hollywood, a growing number of leading film studios are specifying SDDS soundtracks for their important releases. All of the major studios are releasing films with SDDS. After all, SDDS is about brand recognition — movie audiences and filmmakers alike expect to see the logo on marquees and print advertising which means that the movie-going experience is going to be thrilling!"

SDDS has been adopted by all major film distributors, including Buena Vista Pictures, Columbia Pictures, DreamWorks SKG, Miramax Films, MGM, New Line Cinema, Paramount Pictures, Polygram Filmed Entertainment, TriStar Pictures, Twentieth Century Fox, Universal Pictures and Warner Bros.

SDDS soundtracks are not just being specified for major international releases. As Gary Johns points out, "There are a number of locally-produced European films that are being mixed in SDDS. For example, in France, the law says that 40% of films released theatrically must be produced locally. An increasing number of these films are now

being mixed in multichannel SDDS formats. The same is true for Spain and Germany, where a number of local filmmakers are utilizing the creative potential of multichannel mixing techniques for SDDS release."

Dan Taylor, SCPC's Vice President of Industry Relations, is also enthusiastic about the upsurge in interest from foreign distributors. "Recent correspondence from our contacts in Europe," he recalls, "indicates that the availability of 8-Channel SDDS prints is very important to the commercial success of a release. We made sure that 8-Channel prints of *Star Wars: Episode 1* were made available and the results were a dramatic increase in audience figures. Even within relatively small markets such as Norway, the 'SDDS' logo on the marquis means a great deal to the viewing audience; they go out of their way to find such releases."

"Around the world, the trend for larger auditoriums means that directors need more than the normal three behind-the-screen channels — left, center and right — to create the sound experience they are looking for. The SDDS 8-Channel format, with five behind-the-screen loudspeaker channels, makes the movie-going experience more exhilarating, and means that we can use



Columbia/TriStar's
The Messenger: The Story of Joan of Arc.



Sony Pictures Entertainment's
Stuart Little

more loudspeakers to fill the auditorium. The increased horsepower of more channels delivers the impact without the distortion."

The majority of the new, high technology multiplex cinemas around the world are being outfitted to handle 8-Channel SDDS playback. Leading state-of-the-art mixing stages and post-production houses are equipped for 8-Channel soundtrack mixes. "Directors and sound engineers are fully aware of the creative potential offered by an extra stereo pair of channels," Taylor offers. "With the center channel being assigned normally to the dialog tracks, the effects and music elements can be assigned to the inner-left and inner-right channels of the 8-Channel SDDS format and can be used to enhance and/or compliment the outer material being assigned to main left and right channels."

Responding to the need for an increased number of film recorders to prepare SDDS soundtracks, Sony Cinema Products recently installed — or plans to install by year's end — new DFR-3000 Cameras and

DFR-E3000 encoders in Rome, Los Angeles, New York and Germany. In terms of major European film releases, distributors for both Warner Bros. and Universal Pictures have begun to release more and more product with SDDS soundtracks throughout the FIGS (France, Italy, Germany and Spain). Warner Bros. will be releasing *Iron Giant* in SDDS later this year, and Buena Vista International will release *Tarzan* in SDDS.

Caroline Underhill, Sales Operations Manager for Sony Cinema Products Europe comments, "Until this year Columbia/TriStar was the only major distributor regularly releasing their films in France, Italy, Germany and Spain. Starting with *Analyze This* in April 1999, Warner Bros. began providing SDDS prints in France, Germany and Spain. The agreement also covers Italy now that we have an SDDS Recorder System up and running at International Recording in Rome." (Please see cover story: *Sales Success of the DFP-3000 Cinema Processor throughout Europe.*)

SDDS Report



DreamWorks SKG's
Galaxy Quest

"Universal has released their German-language version of *Notting Hill* and *Mickey Blue Eyes* in SDDS. Universal also chose to screen the UK Premiere of *Notting Hill* last April at the Odeon Leicester

Square, Central London in SDDS. In addition," Underhill reports that *Star Wars - Episode 1: The Phantom Menace*, was made available by Fox International in SDDS throughout FIGS, UK, Norway and other territories."

NORTH AMERICAN 8-CHANNEL SDDS RELEASES

Upcoming North American releases with 8-Channel SDDS soundtracks include:

THE MESSENGER: THE STORY OF JOAN OF ARC, from Columbia /TriStar, directed by **Luc Besson**, scheduled for release on November 5, 1999.

STUART LITTLE, from Sony Pictures Entertainment, starring the voice of **Michael J. Fox** with **Geena Davis** and **Hugh Laurie**, and directed by **Ron Minkoff**, scheduled for release on December 10, 1999.

ERIN BROCKOVICH, from Universal, starring **Julia Roberts** and directed by **Steven Soderbergh**, scheduled for release in March 2000.

GLADIATOR, from DreamWorks SKG, directed by **Ridley Scott**, scheduled for release in 2000.

HOLLOW MAN, from Sony Pictures Entertainment, directed by **Paul Verhoeven**, scheduled for release on July 28, 2000.

FOREIGN MOVIE RELEASES

FRANCE

The World is Not Enough
MGM

Star Wars—Episode I: The Phantom Menace
20th Century Fox

The Thomas Crown Affair
MGM

Wild Wild West
Warner Bros.

Idle Hands
Columbia/TriStar Pictures

The Thirteenth Floor
Columbia/TriStar Pictures

Baby Geniuses
Columbia/TriStar Pictures

Universal Soldier, The Return
Columbia/TriStar Pictures

Limbo
Columbia/TriStar Pictures

The Love Letter
DreamWorks SKG

Iron Giant
Warner Bros.

Toy Story II
BVI

Not One Less
Columbia/TriStar Pictures

Random Hearts
Columbia/TriStar Pictures

Blue Streak
Columbia/TriStar Pictures

Joan of Arc
Gaumont

Jakob The Liar
Columbia/TriStar Pictures

Crazy In Alabama
Columbia/TriStar Pictures

Deep Blue Sea
Warner Bros.

Big Daddy
Columbia/TriStar Pictures

Le Puit
Lodux Films

Disturbing Behavior
Columbia/TriStar Pictures

Deep End of the Ocean
Columbia/TriStar Pictures

Matrix
Warner Bros.

Analyze This
Warner Bros.

Forces of Nature
DreamWorks SKG

Gloria
Columbia/TriStar Pictures

True Crime
Warner Bros.

Still Crazy
Columbia/TriStar Pictures

8mm
Columbia/TriStar Pictures

Slappy & The Stinkers
Columbia/TriStar Pictures

Dancer, Texas: Pop. 81
Columbia/TriStar Pictures

Stepmom
Columbia/TriStar Pictures

Go
Columbia/TriStar Pictures

The King & I
Warner Bros.

Tarzan
BVI Germany

GERMANY

The World is Not Enough
MGM

The Thomas Crown Affair
MGM

Star Wars—Episode I: The Phantom Menace
20th Century Fox

Mickey Blue Eyes
Universal Pictures International

Big Daddy
Columbia/TriStar Pictures

Iron Giant
Warner Bros.

Random Hearts
Columbia/TriStar Pictures

Elmo In Grouchland
Columbia/TriStar Pictures

Blue Streak
Columbia/TriStar Pictures

Muppets From Space
Columbia/TriStar Pictures

Dick
Columbia/TriStar Pictures

Deep Blue Sea
Warner Bros.

Crazy In Alabama
Columbia/TriStar Pictures

Jakob The Liar
Columbia/TriStar Pictures

Universal Soldier, The Return
Columbia/TriStar Pictures

Matrix
Warner Bros.

Analyze This
Warner Bros.

Apt Pupil
Columbia/TriStar Pictures

True Crime
Warner Bros.

Still Crazy
Columbia/TriStar Pictures

I Still Know What You Did Last Summer
Columbia/TriStar Pictures

Can't Hardly Wait
Columbia/TriStar Pictures

8mm
Columbia/TriStar Pictures

Limbo
Columbia/TriStar Pictures

Jawbreaker
Columbia/TriStar Pictures

Wild Wild West
Warner Bros.

Idle Hands
Columbia/TriStar Pictures

Notting Hill
Universal Pictures International

Tarzan
BVI

ITALY

The Thomas Crown Affair
MGM

Star Wars—Episode I: The Phantom Menace
20th Century Fox

The World is Not Enough
MGM

Tarzan
BVI

Big Daddy
Columbia/TriStar Pictures

Iron Giant
Warner Bros.

Toy Story II
BVI

Virtual Sexuality
Columbia/TriStar Pictures

Random Hearts
Columbia/TriStar Pictures

Crazy In Alabama
Columbia/TriStar Pictures

Jakob The Liar
Columbia/TriStar Pictures

Dick
Columbia/TriStar Pictures

Limbo
Columbia/TriStar Pictures

The King & I
Warner Bros.

Who Am I?
Columbia/TriStar Pictures

Dancer, Texas: Pop. 81
Columbia/TriStar Pictures

Disturbing Behaviour
Columbia/TriStar Pictures

8mm
Columbia/TriStar Pictures

I Still Know What You Did Last Summer
Columbia/TriStar Pictures

Madeline
Columbia/TriStar Pictures

Still Crazy
Columbia/TriStar Pictures

Go
Columbia/TriStar Pictures

Universal Soldier, The Return
Columbia/TriStar Pictures

Idle Hands
Columbia/TriStar Pictures

Baby Geniuses
Columbia/TriStar Pictures

Jawbreaker
Columbia/TriStar Pictures

The Thirteenth Floor
Columbia/TriStar Pictures

SPAIN

Star Wars—Episode I: The Phantom Menace
20th Century Fox

The World is Not Enough
MGM

The Thomas Crown Affair
MGM

Universal Soldier, The Return
Columbia/TriStar Pictures

Wild Wild West
Warner Bros.

Toy Story II
BVI

Iron Giant
Warner Bros.

Virtual Sexuality
Columbia/TriStar Pictures

Go
Columbia/TriStar Pictures

Crazy In Alabama
Columbia/TriStar Pictures

Big Daddy
Columbia/TriStar Pictures

Limbo
Columbia/TriStar Pictures

Dick
Columbia/TriStar Pictures

Idle Hands
Columbia/TriStar Pictures

Matrix
Warner Bros.

True Crime
Warner Bros.

Vampires
Columbia/TriStar Pictures

Still Crazy
Columbia/TriStar Pictures

Disturbing Behaviour
Columbia/TriStar Pictures

8mm
Columbia/TriStar Pictures

I Still Know What You Did Last Summer
Columbia/TriStar Pictures

Baby Geniuses
Columbia/TriStar Pictures

Jawbreaker
Columbia/TriStar Pictures

El Arbol del Penitente
Kanzaman S.A.

The Thirteenth Floor
Columbia/TriStar Pictures

Tarzan
BVI

THE DFP-3000 CINEMA PROCESSOR

Continued from page 1

THE UNITED KINGDOM

Within the United Kingdom, local SDDS dealer PCL Cinema and Leisure Services recently installed a DFP-3000 Cinema Processor in Clacton-On-Sea, England. As Managing Director

we were finished in record time!"

"The Chief Projectionist at Flicks — who has 30 years of experience in the business — took to the new system like a 'duck to water.' Having sorted out a loop size to retain lip sync

(between the picture gate and SDDS reader), the system was up and running very quickly; and the reaction from both the technical staff as well as the audience has been very optimistic and enthusiastic."

"Sound improvements to the 600-seat main auditorium rank the cinema alongside major multiplex installations," Lea

concedes. "With the original Thirties indirect lighting system being reinstated within the fibrous plaster ceiling, the décor makes the entire atmosphere perfect for cinema presentation."

"The management was highly delighted - 'over the moon' - with the sound improvements that resulted from installation of their new Sony DFP-3000 Cinema Processor," Lea reports. "They feel that the overall sound quality is far superior to what they could offer audiences in the past. SDDS is a major selling point for them here."

"Our customers were really impressed that we had invested in a state-of-the-art sound system for their local cinema," offers **Phil Packham**, manager of the Flicks complex in

Clacton-On-Sea. "We felt it was necessary to provide our customers with the best sound on offer. The investment in SDDS has brought us straight into the new millennium. Having the largest screen cinema on the East Coast (of England), along with market-leading SDDS sound, means that we have been able to do justice to the first-run films we are now attracting. We premiered 'Star Wars Episode 1: The Phantom Menace' - it was a force that could be felt!"

Built some 60 years ago, Flicks was originally known as the Century and seated 1,738 patrons complete with Compton stage organ. The cinema was sub-divided during the Seventies to form a club on the ground floor and the 600-seat cinema in the former balcony. The cinema's second screen, which seats 148, is situated in the former cafe area located on the first floor and has also recently been refurbished by Lea's company.

"PCL Cinema and Leisure Services promotes itself to the UK cinema industry via bimonthly mailings and word of mouth," Lea offers. "We send out plenty of Sony literature and offer free quotes to cinema operators, as well as going to a venue to survey any currently installed systems. From our recent mid-summer mailing, we secured 20 responses asking for system quotes." Lea is a 14-year veteran

of selling hardware to the cinema industry, having started his career in 1980 as an operator.

UCI Cinema International operates some 37 screens throughout the United Kingdom, 20 of which are equipped to handle SDDS soundtracks. According to chief engineer **Mike Beeny**, "Two new UCI complexes in Newcastle, North England, and Norwich, East England, will feature the DFP-3000 SDDS Cinema Processor. UCI Silverlink, Newcastle, features nine screens and came on line in February, while UCI Norwich opened in October with 14 screens." UCI also operates multiplex sites in Spain, Germany, Japan, Yugoslavia, Austria & Brazil.

"8-Channel SDDS playback is preferred for auditoriums with large screen widths," Beeny offers. "For smaller screen dimensions, we find that six-channel playback - with three behind-the screen loudspeaker channels - gets the job done. Of course, we tune our auditoriums so they sound consistent — films can play on any screen with subjectively equivalent performance."

To ensure compatibility and enhanced sonic quality, UCI has specified power amplifiers manufactured by QSC Audio Products and Martin Audio loudspeakers. "The combination of QSC's new DCM power amplifiers and Martin speakers results in very high sound quality," Beeny confides. "And the systems have been ultra reliable."

"We are very confident that the combination of Sony, Martin Audio and QSC is the best sound combination possible. We would put our sound systems up against anybody else's; ours would sound better!"

FINLAND

Finnkino Oy operates the largest cinema chain in Finland, with more than



The Flicks complex in Clacton-On-Sea, the largest screen cinema on the East Coast of England.

Peter C. Lea explains, "Zetters owns a two-screen cinema, Flicks, which underwent a £25,000.00 refit at this popular resort. We installed the SDDS Cinema Processor and a variety of other replay equipment."

"Installation of the new SDDS processor and sound equipment went easily," Lea explains. "We built the 20-U system rack that houses the DFP-3000, power amplifiers and controller in our service center and completely tested it before delivery. At Flicks, we simply installed and wired the speakers, moved the rack into the projection booth and hooked up speaker and power connections. The Westar projector required a custom bracket assembly that we mounted on the front wall of the booth. But, aside from that, the installation was pretty standard. Having connected the playback reader to the SDDS processor and finalized the A-Chain to the projector,

Clacton-On-Sea's refreshment lobby.



SSOR THROUGHOUT EUROPE

80 screens. "To date, we have installed 29 SDDS playback systems with the DFP-3000 Processor," says Technical Manager **Janne Salminen**. "Since opening in February of this year, our Tennispalatsi Multiplex has attracted around 100,000 visitors per month, and we are expecting 1.3 million during its first year of operation."

"Finnkino selected SDDS for its venues because the DFP-3000 offers excellent sound quality and represents very good market value," Salminen considers.

The multiplex features 14 theatres — with a total capacity of 2,697 stadium-style seats and concave screens, it is described as the biggest multiplex in Scandinavia. The main theatre features 703 seats, 8-Channel SDDS and boasts the largest screen in Scandinavia, some 176 square meters. With state-of-the-art, THX three-way playback systems and SDDS capabilities in all 14 screens, we consider the complex to be amongst the best in the world. The company also opened a 10-screen complex - Finnkino Plevna to Tampere - in early April and expects to attract some half-million visitors during its first year of operation. (Tampere is the second largest city in Finland.)

"Films in Finland are released with multi-format soundtracks," Janne Salminen says "and audiences are looking for the 'SDDS' logo as a seal of approval — that the cinema is equipped with the most advanced and highest quality digital sound system."

PORTUGAL, SPAIN, FRANCE & SWEDEN

AMC Theatres has increased its activity within the European market. Currently, the firm has a 20-screen multiplex in Porto, Portugal, and a 24-screen multiplex near Barcelona, Spain,

all of which feature SDDS playback capabilities. According to **Vincent Martin**, AMC Marketing Director, "We are also opening a new 20-screen multiplex in Dunkerque, Northern France, in November and a 24-screen venue in December in Madrid, Spain. We have plans for the United Kingdom — a 24-screen multiplex for Manchester and a 20-screen venue for Birmingham, Central England and in 2001, a 20 screen multiplex in Stockholm, Sweden — all of which will feature SDDS."

"Both Portugal and Spain are major markets," Martin offers. "Our audience figures for Portugal in 1998 were 2.2 million patrons; we have a 53% share of the Porto market and 15% of the entire Portuguese market-with just one multiplex! In Spain during 1998, we attracted 1.4 million patrons." In 2001, AMC Theatres plans to open three more major multiplexes in Spain, comprising a 20-screen venue in Palma, a 20-screen venue in Barcelona, and a 16-screen venue in Valencia.

"We plan to offer SDDS playback at all of these venues" Martin advises, "in addition to several venues that we are currently studying in France, Belgium, Portugal, the UK and Scandinavia. Put simply, SDDS has the greatest distribution value and is the best sound playback system available. Period."

IRELAND

In Dublin, Ireland, Ster Century recently opened its 82,000 square feet European Flagship multiplex at Liffey Valley Shopping Center and is equipped with a total of 14 screens. Five of the screens feature DFP-3000 Cinema Processors and three are 8-Channel equipped.



Foyer at Ster Century's European flagship multiplex in Liffey Valley shopping centre, Dublin, Ireland.

The Ster Century multiplex is being proclaimed as Ireland's newest and biggest multiplex and, after just two weeks of trading, was named the country's #1 cinema. According to **Mike Ross**, Ster Century's Managing Director, "We are delighted with the response we have received from the Irish public to our concept of quality and service, and we are looking forward to delivering the same cinematic experience to the public of Europe."

The multiplex forms part of a major expansion plan that will see Ster

Century invest over US\$230 million in more than 600 screens throughout Europe. Other territories included in the expansion plans are the United Kingdom, Greece, Poland, Hungary, the Czech Republic, Slovakia, Spain, Portugal and Italy. Ster Century is the European trading brand of Ster Kinekor Europe; Ster Kinekor is described as the biggest cinema operator in South Africa, with 75% of the market. The company plans to open five more multiplexes throughout Europe by the end of this year.



The DFP-3000 SDDS Cinema Processor System.

MIXING AND MASTERING

French director **Luc Besson** has earned an enviable reputation for setting the world on its ear, both visually and sonically. His landmark films — including *Big Blue*, *The Professional* (titled as *Leon* in certain territories around the world) and *The Fifth Element* — have combined exciting and thought-provoking visuals with arresting soundtracks. His latest offering, *The Messenger: The Story of Joan of Arc*, starring **Milla Jovovich** (female lead in *The Fifth Element*) just finished mixing at Besson's state-of-the-art facility, Digital Factory, located in

Normandie near Paris.

A recently completed all-digital dubbing stage at the Digital Factory, which features a Sony "Oxford" OXF-R3 mixing console, was used to prepare a full 8-Channel SDDS mix for the new international release. Besson's *The Messenger: The Story of Joan of Arc* is the first all-digital SDDS 8-Channel mix to be made in France.

"We prepared multi-channel stems for *Jeanne d'Arc* on the 96-channel Oxford," reports **François Groult**,

who both oversaw the design and outfitting of the new dubbing stage and also served as chief sound mixer on the re-recording project. "We had six-channel dialog stems, six-channel ambiences, 8-Channel effects, six-track Foley, 8-Channel animal sounds, and six-track music. It was a complex mixing project, to say the least." Previous mixing projects for François Groult include *Les Amants du Pont Neuf*, *Léon Carax Van Gogh*, *Les Roseaux Sauvages*, *Jefferson in Paris*, *Kusturicza*, *Black Cat* and *Le Créateur*.

To ensure the highest possible audio quality for the soundtrack, all of the edited sound elements were replayed from random-access hard-disk systems; and the various pre-dubs and stems were recorded to Sony PCM-3348 DASH-format digital tape machines. Mixed through the Oxford console, all sound elements and music tracks remained within the digital domain for the entire project.

"This was my first SDDS mix," Groult says, "but it's been a revelation. With more on-screen playback



Luc Besson's state-of-the-art facility, Digital Factory, located in Normandie, France.

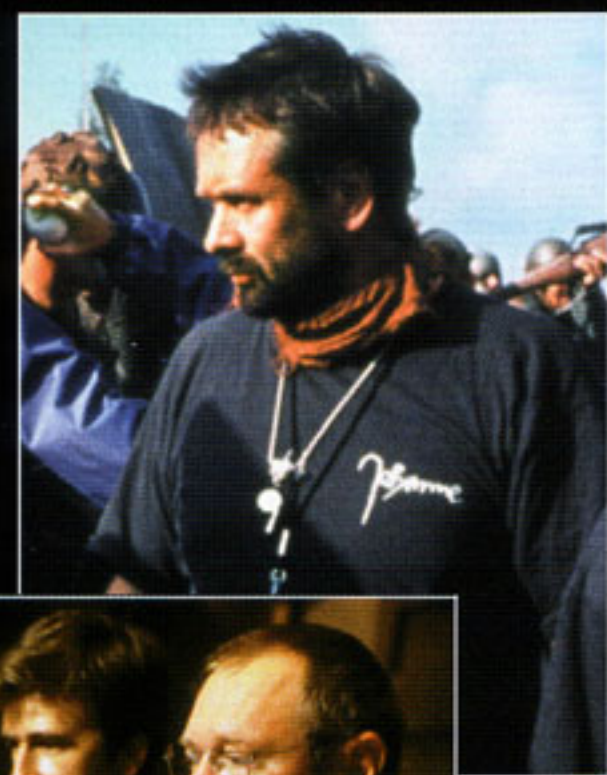
ELECTRONIC CINEMA: *What's To Come...*

channels available than offered by any other replay format, I could provide more sonic 'detailing' on the soundtrack. The extra inner pair of loudspeakers were used primarily for sound effects including arrows, swords and weapons, etc. The sense of being totally enveloped in high-detail sound was particularly noticeable on this soundtrack."

François Groult reports that *The Messenger: The Story of Joan of Arc* is highly dramatic and includes a number of effects-driven battle scenes. "The 8-Channel SDDS mix provided me with a wide palette of sound options and was critical for the type of audio impact that I wanted to achieve with this motion picture soundtrack."

BELOW:
Luc Besson on the set of
The Messenger: The Story of Joan of Arc.

BOTTOM:
François Groult (right) at the
Sony "Oxford" OXF-R3 mixing console.



In many ways, the motion picture industry is slow to embrace new technologies. New ideas are carefully examined; and if there are viable commercial reasons for incorporating them within the movie-going experience, then exhibitors will vote with their check books. Sony Digital Dynamic Sound — SDDS — is an excellent example of a technology that was developed for the right reasons — to enhance the audio experience for today's sound-conscious audiences — and, as a result, accepted rapidly by exhibitors around the world.

In terms of projection techniques, however, the tried-and-true 35mm color print has a lot to be said for it — in terms of universal applicability, ease of use and familiar technology. But a new revolution is just around the corner: Electronic Cinema, in which a high-quality, digitized video image is projected onto a screen with companion multi-channel sound. The challenge facing movie-theatre owners, of course, is to make the film-going experience a memorable one and one that stands up to increased competition from a number of home consumer Digital and Advanced-Definition Television formats being offered to the consumer.

Today, several high-technology companies, including Sony Corporation, are examining various techniques that provide video-based projection — rivaling the look and feel of conventional 35mm film and ensuring profitability for exhibitors and the best playback quality for audiences.

Aside from dramatic and ongoing quality improvements — film being run through industry-standard platter systems suffers visual wear and dust contamination during a normal run within a multi-screen cinema — there are additional costs savings to be made from Electric Cinema. It is estimated that Hollywood's major studios spend approximately \$1 billion dollars a year on the preparation and distribution of film prints. (Each print costs around \$1,200-2,000.) Video pictures being shown in Electronic Cinemas around the world would be first-generation images immune to physical contamination, ensuring that picture quality remains consistent regardless of whether the audience is seeing the film on its first day of release or weeks later.

Digitized images and soundtracks can be delivered via a variety of media, including high-capacity removable hard disks, fiber-optic links, broadband cable or satellite — techniques that can be dramatically cheaper than current printing costs. With today's trend towards new construction and remodeling of theatres into multi-screen complexes, the cost of distributing additional prints for the same number of available seats is rising. Also, a multiplex does not show 20 or 30 different programs; instead, it exhibits popular films on more than one screen with offset start times.

Electronic Cinema offers many creative possibilities. For example, several different picture tracks might be developed to support multiple-language releases for opening/closing credits, etc., with real-time edits being made within the digital domain. Additionally, sound and image tracks do not have to be tied together. Different foreign-language audio tracks could be supplied and time-aligned during presentation, without the need for multiple image copies. Also, different 7.1-channel, 5.1-channel, stereo and even mono audio mixes could be supplied to theatres equipped with varying replay capabilities without the need for multiple inventories.

According to **Bill Mead**, SCPC's VP of Marketing "Sony has made its reputation as a provider of high-quality hardware for high-quality images. We offer a broad range of possibilities for the viewing audience, running across the technology spectrum from still images through television broadcast to motion picture film. And we are carefully examining a wide range of alternate display and image distribution technologies.

"Sony considers that a balance will exist between film and digital projection. E-Cinema offers the promise of consistent, scratch-free projection with potential cost savings. But we should also acknowledge the practical aspects of film as well as its huge infrastructure and underlying reliability. We are looking for the win-win balance and see ourselves building bridges for exhibitors to enter the e-cinema world."

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DFP-3000 Fader Automation

A Technical Note from **Craig Connally**, Sony Cinema Products' Director of Engineering:

Fader Automation is a new feature that's available only with the Sony DFP-3000 Cinema Processor. It means that SDDS films or trailers will play back automatically at exactly the level that the theatre operator has chosen. Any time a cinema operator makes a master-fader adjustment when an SDDS film is playing and the system is in "learn mode," the adjustment is written into a database stored in the DFP-D3000 Decoder. The fader setting is stored along with the title and other information that was entered into the SDDS audio track data when the sound negative was made. Any time in the future when the title is recog-

nized, the stored fader value kicks in. Up to 99 feature reels and trailers can be stored at any given time.

SDDS Fader Automation means that an operator can move prints or trailers from one screen to another screen, without having to worry about resetting loudness levels. Fader settings will follow titles automatically. And using the system is easy. Any time an SDDS print is playing, just press the Down arrow on the DFP-D3000's front panel. This action puts the system in "learn mode," and the LCD screen will then display the film title and current Fader Automation value in dB. Make

a change if you like, and press the Up arrow to store the new setting and return to the main menu.

If the operator changes the master fader away from 0.0 dB in "normal mode," the new value will be added to the stored Fader Automation value to determine the overall loudness in the theatre. The stored Fader Automation levels won't be changed. When the kids come in at night, you can crank the master fader back to 0.0 dB, and still take advantage of the stored Fader Automation levels that make every SDDS title play the way you want.

Today, a skilled theatre operator can transfer Fader Automation data from one DFP-D3000 to another, using just a laptop PC. In the future, the DFP-D3000's automation port will allow sophisticated cinema control systems to move Fader Automation data among all networked Decoders from a central computer.

SDDS Fader Automation is just one more way that Sony is bringing the future to today's cinema exhibitor.

"SDDS Fader Automation means that an operator can move prints or trailers from one screen to another screen, without having to worry about resetting loudness levels."



Extending soundtrack life

A Technical Note from **Torkell Sætervadet**, Sony Cinema Products Europe.

To ensure flawless digital SDDS playback, even after hundreds of print runs, it is important that projectionists and other cinema staff handling prints are following these simple guidelines:

- When assembling or breaking down a print, always make sure that the film is wound evenly on the platter and the reel/core. The film should not be subject to excessive winding speed or friction.
- Never apply Chinagraph crayons, correction fluid, labels or other non-transparent means covering the film edges to mark the start/end of a reel. If the working conditions in the projection room makes marking of the splice between reels compulsory, a standard securitas UV marker (Edding 8280 or equivalent) could be used on the film edge due to its transparency. A UV torch (flashlight) or other UV light source (a.k.a. black light) will then make the splice visible to the human eye.
- Make sure that the entire film path including the platter rollers, SDDS reader and projector head is kept clean at all times; that all running surfaces are in good condition; and that all rollers are rotating smoothly.
- All pressure rollers and shoes must be kept at the correct distance from the sprockets. This also applies to the SDDS reader. Please refer to the SDDS Reader Maintenance Manuals for further details about alignment of pressure/retainer rollers.
- Due to the increased use of polyester film, it is highly recommended that the relative humidity in the projection room be kept at approximately 50-60% RH to avoid general problems related to static electricity.
- Anti-static film cleaning devices are also highly recommended and could be mounted between the platter and the SDDS reader — with the advantage that the added friction provides further stabilization of the film path in digital penthouse readers.
- Never clean films manually with cloths and cleaning agents.

A little maintenance goes a long way to give your theatre that extra touch for quality sound.

*"Never clean films manually
with cloths and cleaning agents."*

BY SPRING 2000, MORE THAN 500 FILMS WILL BE SCHEDULED FOR RELEASE WITH SDDS SOUNDTRACKS.

The following studios have committed to release films in SDDS:

ARTISAN, BUENA VISTA, COLUMBIA PICTURES, DIMENSION FILMS, DREAMWORKS SKG, GRAMERCY, MGM/UA, MIRAMAX FILMS, NEW LINE CINEMA, POLYGRAM, TRIMARK, TRISTAR PICTURES, TWENTIETH CENTURY FOX, UNIVERSAL PICTURES AND WARNER BROS.

The following film titles will be released in North America. For all other territories, please check with your distributor for the availability of these and other SDDS films.

CURRENT FILMS IN SDDS

DICK
Columbia Pictures/Phoenix Pictures

MYSTERY MEN
Universal

THE THOMAS CROWN AFFAIR
MGM/UA

THE IRON GIANT
Warner Bros.

BOWFINGER
Universal

DUDLEY DO-RIGHT
Universal

DETROIT ROCK CITY
New Line Cinema

MIKEY BLUE EYES
Warner Bros.

TEACHING MRS. TINGLE
Tingle Productions/Outer Banks Ent.

THE ASTRONAUT'S WIFE
New Line Cinema

THE BIG TEASE
Warner Bros.

UNIVERSAL SOLDIER, THE RETURN
Columbia Pictures

SIXTH SENSE
Buena Vista

FOR THE LOVE OF THE GAME
Universal

CHILL FACTOR
Warner Bros.

BLUE STREAK
Columbia Pictures

TOWN AND COUNTRY
New Line Cinema

JAKOB THE LIAR
Columbia Pictures

MUMFORD
Buena Vista

ELMO IN GROUCHLAND
Columbia Pictures/Jim Henson Productions

THE BONE COLLECTOR
Universal

MYSTERY, ALASKA
Buena Vista

BODY SHOTS
New Line Cinema

LOST SOULS
New Line Cinema

SNOW FALLING ON CEDARS
Universal

RANDOM HEARTS
Columbia Pictures

THREE KINGS
Warner Bros.

THE STORY OF US
Universal

THE BEST MAN
Universal

CRAZY IN ALABAMA
Columbia Pictures

HOUSE ON HAUNTED HILL
Warner Bros.

THE SUBURBANS
TriStar Pictures

THREE TO TANGO
Warner Bros.

AMERICAN BEAUTY
DreamWorks S.K.G.

UPCOMING FILMS IN SDDS

THE MESSENGER: THE STORY OF JOAN OF ARC
Columbia Pictures

MAN ON THE MOON
Universal

ANY GIVEN SUNDAY
Warner Bros.

THE INSIDER
Buena Vista

THE BACHELOR
New Line Cinema

END OF DAYS
Universal

TOY STORY 2
Buena Vista

CRADLE WILL ROCK
Buena Vista

DUCE BIGELOW
Buena Vista

END OF THE AFFAIR
Columbia Pictures

THE WORLD IS NOT ENOUGH
MGM/UA

VIRTUAL SEXUALITY
TriStar Pictures

STUART LITTLE
Columbia Pictures

GALAXY QUEST
DreamWorks S.K.G.

THE GREEN MILE
Warner Bros.

BICENTENNIAL MAN
Buena Vista

GIRL INTERRUPTED
Columbia Pictures

FANTASIA 2000
Buena Vista

HANGING UP
Columbia Pictures

NEXT FRIDAY
New Line Cinema

GLADIATOR
DreamWorks S.K.G.

15 MINUTES
New Line Cinema

VIGILANCE
Student Film

SNOOZE
Student Film

PITCHBLACK
Polygram Entertainment

FREQUENCY
New Line Cinema

BOILER ROOM
New Line Cinema

TEENAGE TEXTBOOK
Monster Films

A STIR OF ECHOES
Artisan

DEATH OF THE RED PLANET
Student Film

THE TREE
Universal

MY DOG SKIP
Warner Bros.

RIDE WITH THE DEVIL
Universal

VOLAVERUNT
Mate Production

BACKSTABBERS
Universal

THE PRICE OF GLORY
New Line Cinema

THE HURRICANE
Universal

FLIGHT 180
New Line Cinema

TOWN AND COUNTRY
New Line Cinema

28 DAYS
Columbia Pictures

ALL THE PRETTY HORSES
Columbia Pictures

MARS
Warner Bros.

ERIN BROCKOVICH
Universal

WHAT PLANET ARE YOU FROM?
Columbia Pictures

EL DORADO
DreamWorks S.K.G.

THE REPLACEMENT
Warner Bros.

LOVE AND BASKETBALL
New Line Cinema

HOOFBEATS
Columbia Pictures

I DREAMED OF AFRICA
Columbia Pictures

THE FLINTSTONES IN VIVA ROCK VEGAS
Universal

SPACE COWBOYS
Warner Bros.

DINOSAURS
Buena Vista

CHICKEN RUN
DreamWorks S.K.G.

MISSION TO MARS
Buena Vista

PERFECT STORM
Warner Bros.

PATRIOT
Columbia Pictures

LOOSER
Columbia Pictures

CHARLIE'S ANGELS
Columbia Pictures

VERTICAL LIMIT
Columbia Pictures

ADVENTURES OF ROCKY AND BULLWINKLE
Universal

HOLLOW MAN
Columbia Pictures

DANCING IN THE DARK
Warner Bros.

33 LIBERTY STREET
Warner Bros.

OSMOSIS JONES
Warner Bros.

FREQUENCY
New Line Cinema

PRICE OF GLORY
New Line Cinema

SHREK
DreamWorks S.K.G.

RECESS
Buena Vista

GLADIATOR
DreamWorks S.K.G.

FOOLPROOF
Universal

WINNIE THE POOH
Buena Vista

THE INCREDIBLE MR. LIMPET
Warner Bros.

HARRY POTTER AND THE SORCERER
Warner Bros.

CONFESSIONS OF A DANGEROUS MIND
Warner Bros.

Below listed information is subject to change, title additions, deletions and name revisions.

THE INSIDE TRACK

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