Film-Tech

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FILM NOTES FOR THE REEL PEOPLE

A TECHNICAL SERVICE FOR FILMHANDLERS FROM EASTMAN KODAK COMPANY

National Screen Profile

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FILM NOTES FOR THE REEL PEOPLE

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FALL 1993

Letters to the Editor

Dear Editor,

With reference to Glenn Berggren's recent lens articles: there were some procedures mentioned that we were not familiar with and intend to use to improve picture quality.

One main question: The only alignment system that we are accustomed to is the "String System" and we would be very interested in who markets the laser unit Glenn mentions.

Willis Johnson
President, Classic Cinemas
Downers Grove, Illinois

Editor: We have deferred to author Berggren to provide you with a detailed response:

Answer: Any laser alignment system that can create the optical alignment line of the mirror, arc lamp, aperature, and projection lens can be used. The laser is mounted in place of the projection lens in a holder that must be adjusted in a rotating fixture so that the red laser line does not move from the axis during rotation. The lens mount is used to establish the basis of the optical axis. If the lens mount is crooked or improperly mounted, the reading is inaccurate. The next step is to place a precision target in the location of the film with its center 'crosshair.' RP-40 target film is suitable. Align so that the laser line is in the center of the crosshair. For adjustable lens mounts, such as the Century for 35/70, set the adjustable knob in the 35 mm position and adjust the entire lens mount for correctness so that the laser line will pass through the center of the RP-40 crosshairs. Both target and mirror should be adjusted, usually by moving the entire mirror or even the whole lamphouse, so that the laser line doubles back on itself. Then the optical axis of the lens aperture for film, and the reflecting surface are all coincident. Several companies (Christie and Ballantyne) may have the alignment systems you are looking for. Please contact their offices for information.

Contents

Congratulations, George!

Hats off and a belated "Happy Birthday" to George W. Carroll! Mr. Carroll was 80 years young on July 28th and has recently retired from Kerasotes' Lory Theatre in Highland, Illinois, after spending 65 years in show business.

George wrote in to tell us that he has been one of Our readers for many years and has spent has last 23 years with Kerasotes Theatres as manager and projectionist.

We wish Mr. Carroll a joyous retirement and many more happy years!

If you have any questions or comments, please write to:
Editor, *Film Notes for the Reel People,*
6700 Santa Monica Blvd., Hollywood, CA 90038

Interview

Peter Koplik, President of National Screen Service

What services does NSS provide to the industry?

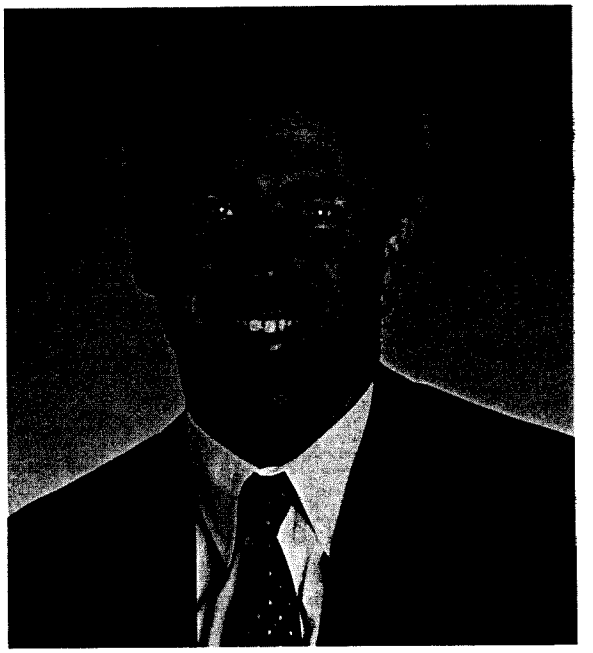
A. We are a distribution services company. Studios hire us to distribute virtually all the point-of-purchase promotional materials that they create in connection with their pictures: trailers, one-sheets, standees, banners, press kits, t-shirts, etc. There really is no limit to what we will distribute in the way of promotional items. We have developed and refined a computer system over many years that affords our clients tremendous benefits in terms of speed, convenience and capacity. We rely on talented and experienced people who understand the market place that they are serving. We like to feel that in this corner of the business, we understand our clients' needs better than anyone.

How many exchanges does National Screen Service have and where are they located?

A. We have three: Los Angeles, Kansas City, and Englewood, New Jersey. We divide the country into east, west, and central.

Do all of your branches carry the same variety of supplies?

A. Each branch has accessories, but most trailers are shipped from Los Angeles. Our older materials are warehoused in Kansas City.



Peter Koplik

How is your relationship with the studios orchestrated?

A. The exhibitor relations departments are our primary contacts and we are in touch with them daily, often several times per day.

If I purchased a movie theatre, how could I obtain your services?

A. You just call us: Los Angeles (310) 836-1505; Englewood (201) 871-7979; or Kansas City (816) 842-5893.

We would determine the needs of your theatre, any circumstances unique to your location, and the best way to service them. For example, we would arrange for timely delivery if the theatre is closed during the day.

What type of shipping arrangements do you use?

A. We use all the common carriers, Federal Express, United Parcel Service, etc. and we have been able to coordinate with their services to add value for our clients.

Do the studios initially ship the trailers to the theatres or do you handle the bulk of them?

A. We ship trailers as soon as they become available from the lab. Our turnaround time for shipping is rarely more than a day. In fact, the speed with which trailers get to theatres from the time they are broken down and available for shipping is a function of whether they are shipped overnight or two-day service. For example, a trailer that is ready on Wednesday is almost certain to be shipped overnight for delivery on Thursday so that it can make the weekend shows. If a trailer is becoming available to ship on Friday, there is usually less urgency to ship it overnight, because it's going to arrive on Monday or Saturday, and unless there is a special circumstance, the theatre is not likely to break into their show to program it.

"I think audiences look forward to trailers as part of the theatre-going experience."

What about the trailer return policy? Do you see a lot of trailers shipped back?

A. Not as many as we would like. The second run or sub-run theatres are really at the mercy of the first run exhibitor in returning trailers. We urge exhibitors to return trailers to us, and we do our best with the prints available.

Do you think too many trailers are being put on films?

A. No. I think audiences look forward to trailers as part of the theatre-going experience. The film companies are intensely competitive and they all want to get what they consider to be their fair share of screen time. It poses a dilemma for exhibitors because they can only play so many trailers; they have scheduling issues of their own. From an exhibitor's point of view, they are trying to cooperate with all of the distributors and give new trailers as much exposure in the marketplace as they can. The exhibitors usually do their best within reason to cooperate with the studios. Everyone has an interest in seeing the trailers played.

How long do you keep trailers in stock?

A. We will keep a supply on hand indefinitely. We have trailers that are 35 years old. If we get 6,000 trailers on a picture, we are not going to warehouse all of them; we retain a supply adequate for the residual needs of the film.

With home video, are you approached by groups that own film libraries to buy trailers?

A. Yes, but the film company who owns the copyright has to release it to the people who own video rights. We have often provided this service, but only when authorized by the studio.

How many sizes of posters do you carry?

A. The sizes are limited to one-sheets. The studios found that other sizes weren't really being utilized. It has allowed the industry to become more efficient. This transition did not occur overnight, it was a matter of attrition.

What have the double-sided one-sheets meant to National Screen Service?

A. They are designed especially for back-lit display cases and are unique to theatrical one-sheets. They detail the poster art much more clearly. It makes our product more enticing to the public.

Many of the studios mass produce one-sheets for commercial markets. Does National Screen Service become involved in sales to the public?

A. No. We distribute only in connection with the exhibition of the picture. The studios have other licensees for those commercial rights. We do not infringe on those rights.

Do you see anything different coming on the horizon, possibly different sizes?

A. The one-sheet has become the industry standard. I see no movement to change them and to retrofit poster cases. There are new technologies, for instance the double-sided one-sheets, transparencies, 3-D posters, etc., so there are always new challenges for the studios. There has been a lot of activity with mobiles, banners, standees, and free standing displays that utilize more available floor or wall space. It is important to us to stay abreast of these changes, and to find solutions for our customers.

What do you see in the future for National Screen Service?

A. We see our services as an ongoing part of distribution and exhibition. They will continue to be important because we provide such a specialized "white glove" type of service. The delivery of trailers and other promotional materials is so exacting that we really have to be on top of our client's needs. We are not just shippers but a critical link – and often the final link – in the marketing process that is extremely expensive and difficult.

"We are not just shippers but a critical link – and often the final link – in a marketing process that is extremely expensive and difficult."

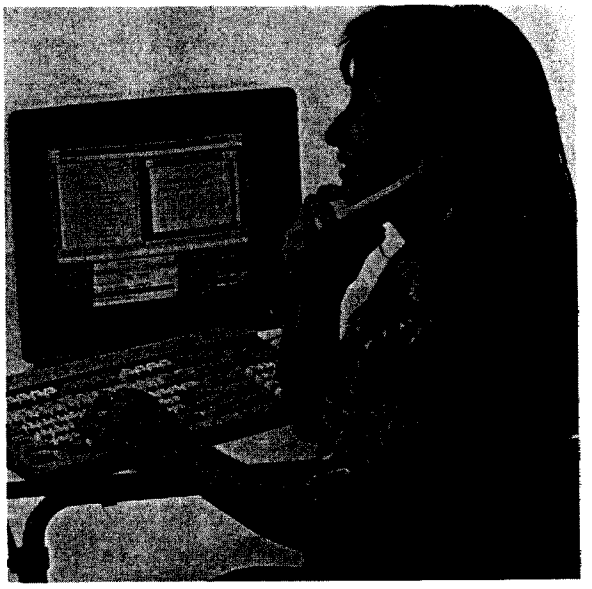
Movie Theatres: The Next Generation

by Kelly B. Smith, ENTECH, INC.

The average theatre complex built today will have no less than six separate automation/control systems. Projector automation, projection status panels, exit door monitoring, security system, exterior and marquee lighting (timeclock), and HVAC control systems are common in most theatres. Sprinkler, payroll, interior lighting, and card reading door access are additional systems to consider. All of these systems do their jobs without the advantage of coordinating their efforts with the rest of the building. By putting the theatre complex under one Building Automation (BA) SYSTEM, Point of Use (POU) controllers replace the conventional equipment. These POU's share their information with the rest of the network through a Host controller. If the network link goes down, the POU's will continue to control based upon the programs loaded into their memories. Listed below are detailed examples of what the Building Automation can provide for each existing system.

Projection Automation

A POU controller will replace each conventional automation. This controller can monitor input units from the xenon lamp, xenon power supply, projector motor, exciter supply, cue detector, sound system preamp and output cards, power amps and douser, and sound changeover connect to the outputs. The controller software runs the booth equipment while monitoring the booth inputs for fault. The instant a shutdown occurs, an alarm message identifying the failed component is displayed at the workstation. For example, if auditorium three loses sound level in all four channels, the control system identifies the problem as being the sound NR card. It notifies the workstation of the condition and then proceeds to place the sound processor into bypass mode. This occurs without the need to stop the movie or the embarrassment of having a patron inform the management that the sound is off. Additionally, the workstation can start and stop shows remotely, make sound adjustments and lens changes or notify on missed changes. All automated functions are completely capable of manual control from the workstation or from hand switches at the projector. The Building Automation has the ability to page support personnel and provide a unit number and trouble code.



Workstation

Projector Status Panel

These panels monitor the state of the projector automation systems. With a Building Automation, the panels are really not needed because the workstation does all the monitoring and alarming. However, the panels can be tied directly into a controller for remote alarming.

Exit Door Monitoring

Many theatres have exit door monitoring systems which frequently do not work or are not used. The result is an unsecured theatre complex. Imagine an exit door system which knows when auditorium five is letting out. Instead of sounding alarms every time the exit door opens, the system waits an ample amount of time before arming

itself. The workstation has the ability to display a floor plan of the complex with up-to-date states of all doors. From this graphic, highlighted unsecured doors allow the usher a quick view of the complex. For instance, at 3:00 a.m., Monday night, someone breaks in the exit door of auditorium eight. The BA logs the event (date and time) in the database, and pages the appropriate person. This is not a traditional security system, but a viable application of a controller connected to door contacts coupled with creative software usage.

Card Reading Door Access

Related to exit door monitoring, door access provides the best means of securing the complex. Most entry doors are not on any monitoring system. Instead, one door has a card reader in place of the key lock. Managers or staff receive an access card programmed for that particular theatre. Mid-level personnel can have their cards programmed for multiple theatres.

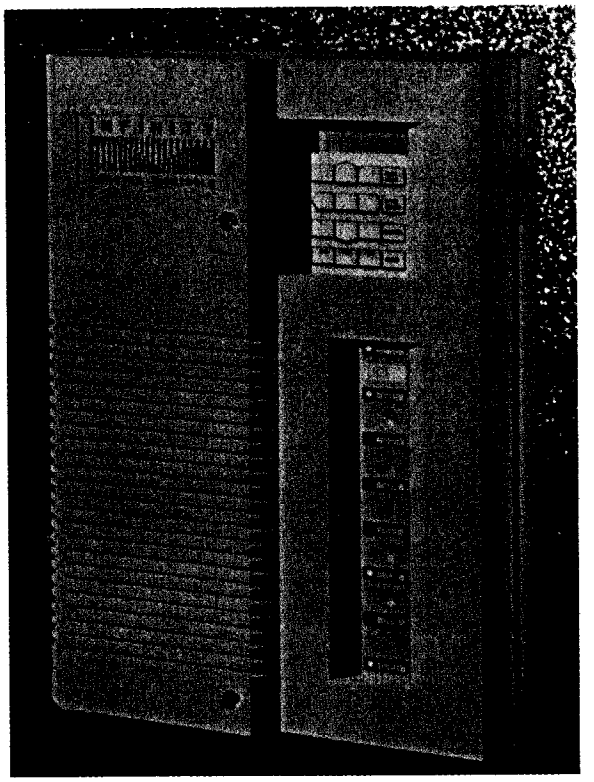
Managers or staff on loan to other theatres can temporarily have their cards reprogrammed. Termination results in card deletion. This nearly eliminates the cost of re-keying for new personnel, lost keys, and delivery services. Security is the real issue concerning door access. The workstation keeps archived reports of all persons entering and exiting the building during nonoperating hours. The POU controller locks and unlocks the entry doors. This can occur automatically or manually. The workstation database stores all information concerning the access system. Remote camera feeds can display on the workstation for complex monitoring.

Payroll System

Payroll procedures continue to become more automated. With door access, each staff member can use the card to clock in and out. The workstation computes hours worked, creating a report at the end of the pay period. The report format can interface existing payroll reporting systems.

Security System

Many theatres are installing monitored security systems due to the increase in theatre burglaries. The BA has all the features of these security systems and can access the whole building to determine the type of security breach. Using creative programming, the BA acts as an on-line security system. For example, a patron hides behind the screen waiting for the theatre to close. The auditorium motion detector arms itself when the BA shuts down the house. As the intruder begins to move about, the workstation logs the events and notifies the



System Control Unit

theatre personnel in the building. If the intruder exits the building, the BA logs the exit and continues to monitor the building. The BA can signal alarms (visual or audio), provide dial-out alarms to theatre personnel and log the events in the database. Another possible example: Key parking lot locations have several sound sensors installed. The POU software monitors the sensors and sends an alarm to the workstation when it detects a sound pressure level, like that of glass breaking. This kind of feature makes a difference to patrons.

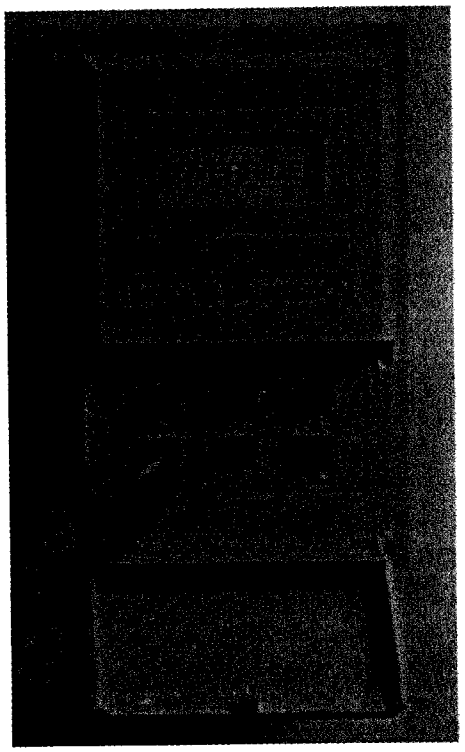
Lighting, Auditorium, and Other Controls

The average theatre runs its exterior building, parking lot and marquee lighting from timers. Some use a combination of timeclock and photocell sensor. The sensor turns the lights on, while the timeclock turns them off.

The BA controls not only these lights but all interior lighting. The major purpose behind controlling all

lighting is to reduce the operating hours of all fixtures and to coordinate demand needs with the rest of the building. For instance: The marquee turns on by photocell and the POU controller switches it off at the same time the access POU locks front doors, even if this time changes each day. The parking lot is divided into three zones; front, left, and right. Because some theatres have slower business on weekday evenings, the BA leaves the left and right parking lot lights off. On weekends, all three zones are active. The parking lot lights stage off ten minutes after the closing manager's access card runs through the reader (activating after-hours monitoring).

Examples of inside control: The opening manager arrives at the theatre at 10:00 a.m., the first show is at 12:00 p.m., theatre opens at 11:30 a.m., staff arrives at 10:45 a.m. At 10:45 the BA stages on the concession stand and the support room lighting. From this time on, the BA stages on the lobby, hall and support lighting. Projection booth equipment as well as HVAC equipment stages on as well. A motion detector will bring on the auditorium lighting as needed. The BA is able to determine the time between equipment stages and can therefore minimize kilowatt (kW) demand. If a show is canceled during the day or a sync house is not needed, the workstation will place the auditorium into standby (shutting booth and auditorium equipment off) until needed. As the last set of shows begin to break, the BA starts staging off auditoriums and booth equipment accordingly. The ability to monitor equipment activity and follow set time schedules enables correct staging of lighting and building equipment. By the use of current sensors, the BA can perform troubleshooting in the event that equipment fails to stage on and off properly.



Programmable Interface

Hot water heaters and sprinkler systems are good items to control. A hot water heater serves no purpose after hours. The BA can stage it on and off according to usage. A POU controller can perform all the functions of a sprinkler controller plus the ability to reprogram from the workstation, at the touch of a button. By placing a humidity meter outside, the sprinkler POU will override itself if the humidity is above 95% (using that figure to assume that it's raining outside).

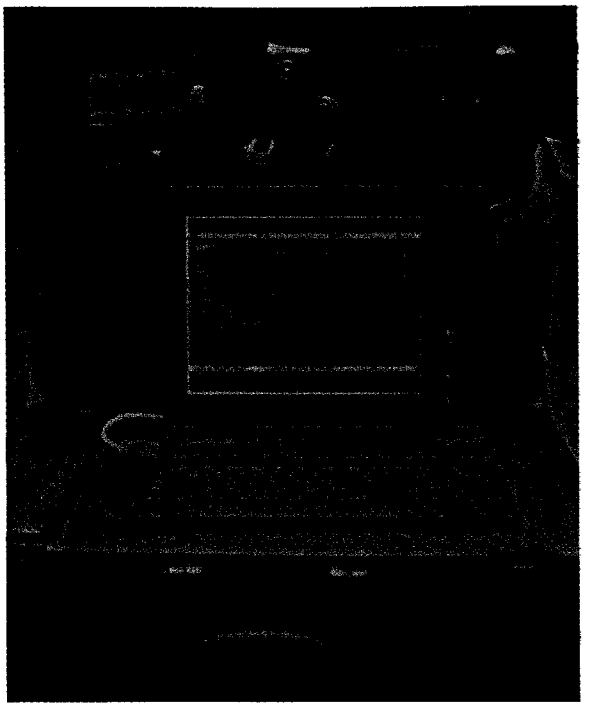
HVAC Control

Without a doubt, the biggest user of electricity in a theatre complex is the heating and cooling system. The BA monitors each auditorium using a POU with temperature, humidity and status inputs. The HVAC system stages on according to the same building schedule used to bring on lighting and booth equipment. The POU will control the unit to maintain the temperature plus or minus one and a half degree (this is the deadband) while the projector is on. Between shows, the deadband will increase to three degrees until the auditorium motion detector senses a predertermined amount of patron activity. At that point, the deadband will reduce back to one and half degrees. The BA will control cooling/heating stages and unit activity, coordinate with the rest of the building equipment, to minimize the kW demand. Each auditorium unit will shut down twenty minutes prior to its auditorium show ending. This action helps reduce usage while maintaining a good comfort level. Some HVAC units have economizers that use outside air to mix with the supply air. Economizers work well and reduce usage, but only when inside and outside humidities are program-determining factors. Using exhaust fans between shows will reduce usage by venting the heat generated during a packed auditorium showing. The exhaust fan pulls that heat out to reduce the load on the cooling system.

Controlling techniques are commonplace today. By combining them with the rest of the theatre POU points, the BA controls precisely and efficiently. For example: 10 minutes prior to showtime the BA detects that the HVAC system is calling for the fan and two stages of cooling, but the equipment input proofs (current switch

for fan and duct temperature sensor) indicate that the unit is not cooling. The workstation receives the alarm before the auditorium temperature becomes a problem. The manager then makes the decision concerning show cancellation or print moving.

Programming is the key to any BA. The controllers and their abilities are useless if poor programming codes exist. Many BA systems work around the code problem by proving "canned" software to perform their control work. This approach does not lend itself to maximizing equipment efficiency. Computerized theatre complexes work best with fully programmable control systems. The control company selected should understand the needs of each individual theatre. Each theatre complex is as unique as the individuals running it. A full understanding of theatre operations is vitally important to the programmer so that the software is effective in troubleshooting.



Lap-Top Service Tool

The troubleshooting and reporting abilities of the BA are invaluable tools to the theatre manager and equipment support personnel. All major projector functions are easily monitored for downage. For instance, if a projector stops and the current-input sensor indicates that there is no electricity, the problem is most likely to be in the motor circuit or the motor itself. In order to prevent this situation, the BA monitors equipment hours and produces weekly or monthly reports. This would also be very important in the case of the xenon bulb passing the warranty life period. Since all log information stores itself in the workstation database, spreadsheets and word processors can import the data for presentations. Equipment report histories provide helpful means of isolating recurring problems.

Networkability is the secondary key factor in the BA. Since the Host controller communicates with the POU controller, and the workstation, they act as a collector and a reporting point. Multiple workstations can network together from the same server to provide data distribution. This is particularly useful to off-site mid-management since a workstation on the desk of a district manager can have remote access to all data contained in the separate databases of each theatre. More recent network achievements include the ability to connect the BA to Ethernet (an established network) enabling an increase in information sharing. The BA is situated for MIS integration.

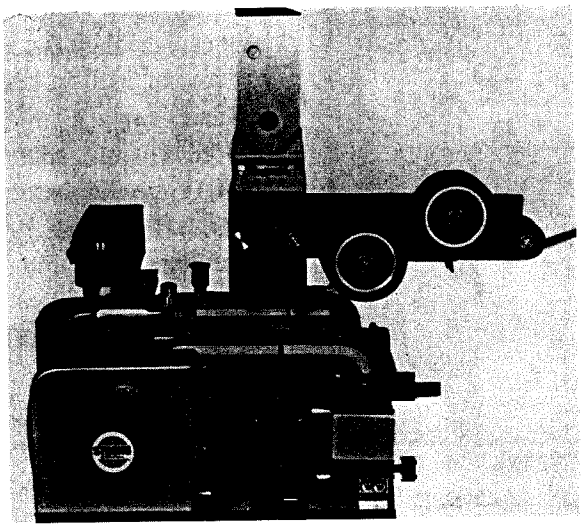
For theatres that are regularly trying to conserve energy and money, one of the most impressive features of the BA is that it will pay for itself in kW demand savings and reduced kilowatt hours (KWH) usage. The theatre electrical bill can be challenging to decode, but usually approximately half the bill is kW demand and the other half is KWH. kW demand is the amount of kilowatts required during a fifteen-minute time period. For instance, if during the fifteen-minute demand cycle, three HVAC units stage on requiring 195 kW, four units might require 215 kW. That increase in demand will show up on the following month's bill. There is a certain time period, usually the summer months, when peak demands are set. This peak demand factors into the monthly bills for the next nine to twelve months. By being aware of the demand requirements and limiting the demand, the cost significantly decreases. Usage is equally important, but more difficult to reduce. If the BA programming takes into account all the aspects of the operation, there will be a point that the usage "bottoms out" and will not go below. It should be noted that the only way to achieve that point is with a BA system. Turning equipment off when not needed is the only way to reduce usage. A computer that schedules and programs in an orderly manner enables its users to use energy more efficiently and realize a substantial cost saving at the bottom line.

PTR Update

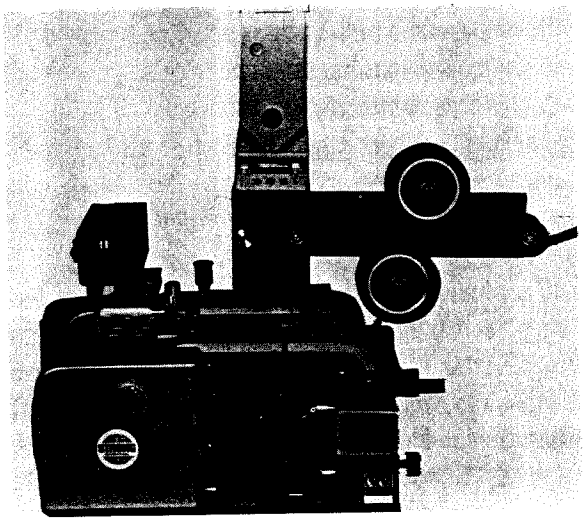
Over the last several years PTR's (Polyurethane Transfer Rollers) have begun finding their ways into many projection booths throughout the country. The PTR, an environmentally safe solution to film cleaning, has also been adopted by several key manufacturers. We would like to share their mounting systems with you, and recommend that you contact them if you are interested in additional information about their systems.

Strong 35mm "PTR" Film Cleaner

For use on both projectors and platters. Item # (35 PTR-FCC) 35 mm, Item # (70 PTR-FCC) 70 mm.



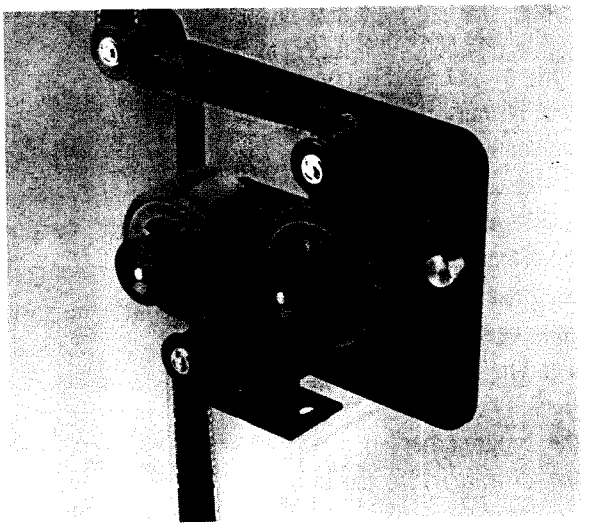
Engaged



Disengaged

SPECO 35 mm "PTR" Film Cleaner

For use on both projectors and platters. Model #40012 35 mm, Model #40011 35/70 mm.



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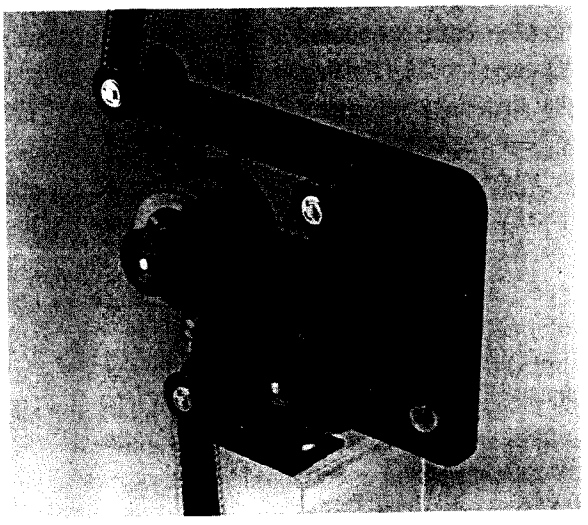
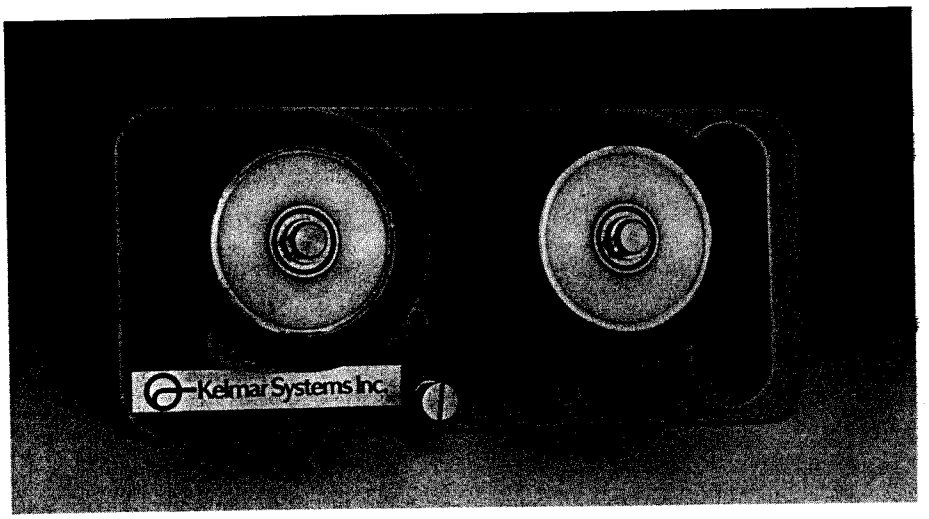


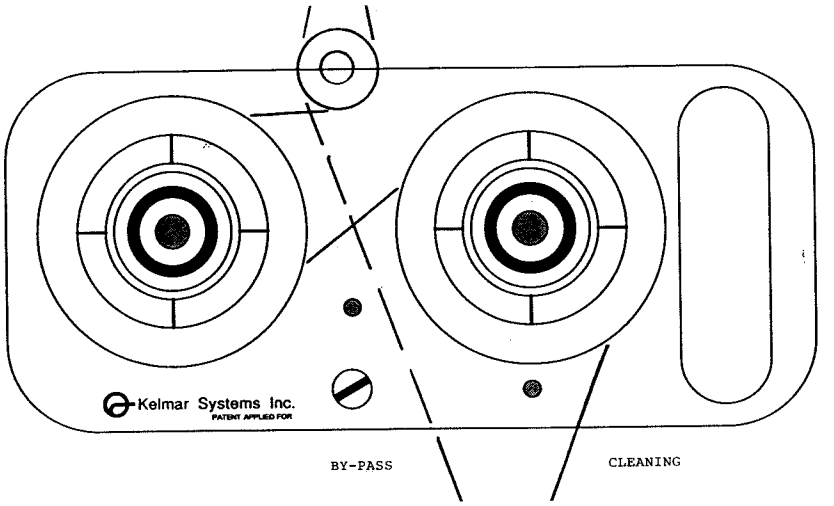
Disengaged

Kelmar "PTR" Mount

For both projectors and platters (35/70 mm).



Bracket Assembly



By-pass Schematic

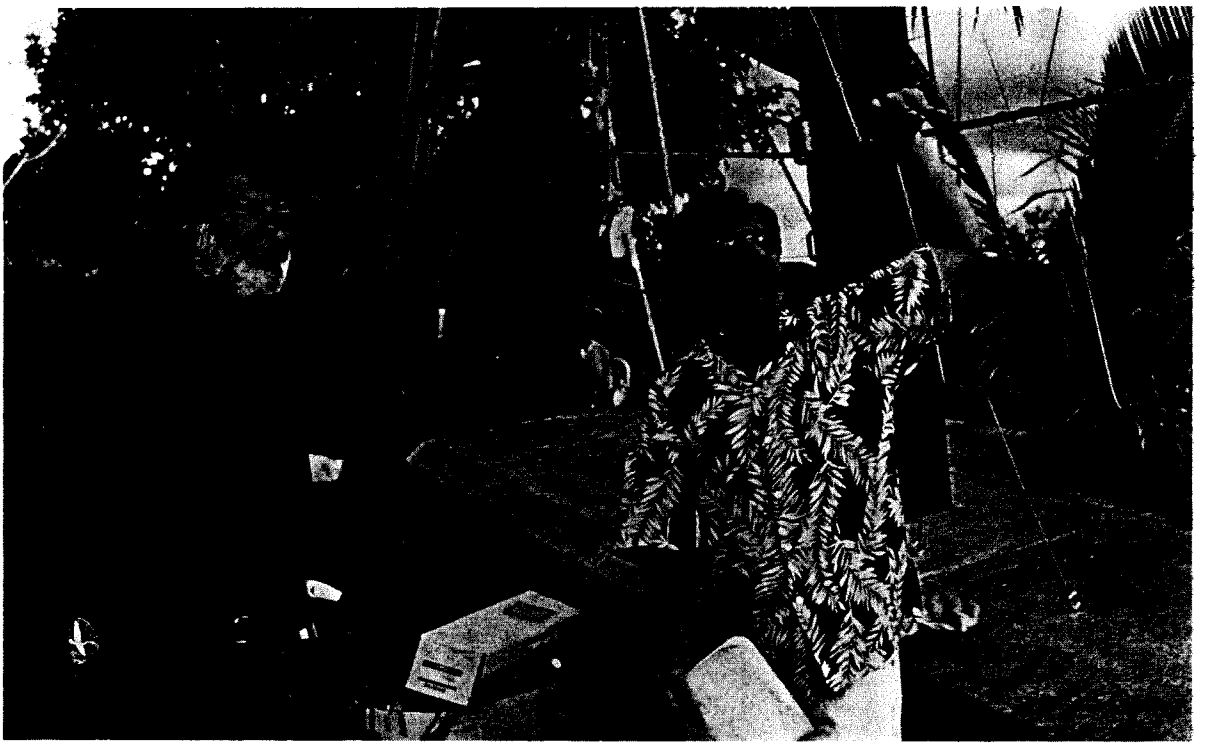
Companies:

Kelmar Systems
284 Broadway
Huntington Station
New York 11746
(516) 692-6131

SPECO
709 North 6th Street
Kansas City
Kansas 66101
(800) 633-5913

Strong International
4350 McKinley Street
Omaha
Nebraska 68112
(402) 453-7236

Dean Cundey's Jurassic Adventure



Dean Cundey (left), Jurassic Park

Many of us learned of dinosaurs in the pre-school picture books. We went on to learn their tongue-twisting names and were alternately charmed or horrified depending upon whether we were introduced to cuddly baby herbivores with cartoon eyes and smiles or the flesh-tearing of the towering tyrannosaurus rex.

When Michael Crichton unleashed his modern day tale of rampaging dinosaurs given life by genetic DNA manipulation, our dinosaur fascination was fed on a grand scale. The book *Jurassic Park* climbed quickly up the best-seller list in its original hardback release and has only become more popular since the paperback issuance late last year. More than four million copies have been sold in the last few months alone. Imbuing those "paper" dinosaurs with life in a movie theatre presented quite a challenge to Steven Spielberg since the audience had already staged the movie in the theatres of their minds.

Rising to the challenge, Spielberg spent many hours in his own milieu of prehistoric preoccupation since acquiring the book rights even before its mass market publication.

Jurassic Park cinematographer Dean Cundey, ASC, recalls: "Steven was involved with the script for about three years. He'd talk about it sometimes when I was shooting *Hook* with him. The production designer was Rick Carter and he was already working on the sets. We had worked together on *Back to the Future* and he was

coming around regularly with the latest drawings for Steven to approve. I got immersed as an observer very early in the project. Steven asked if I wanted to shoot the film after we finished *Hook*."

Cundey knew that *Jurassic Park* would not be a film that the audience would watch passively. He recalls, "Steven likes to move the audience through scenes so they feel like they are really participating." He likens the use of a camera in the movie to a character. The continuous movement, the choice of interesting and sometimes extreme angles generates enormous emotional energy.

"The tram ride going through the park invites the audience to come along for the ride. Looking around the theatre at the body language of first-time viewers tells it all," Cundey explains. "As people sway with the visual twists and turns, and crane their necks peering left and right, high and low, they seem to be looking for predators lurking in the shadows or just around the next bend.

"It's a signature technique with Steven," Cundey continues. "He brings the audience right into a character's face so they can see what is in his or her eyes. It's a way of developing empathy. The camera is always moving, gradually getting closer to the point of danger. It heightens the sense of drama and suspense.

Dean Cundey is no stranger to big-time visual effects films. He has already collaborated with Bob Zemeckis on five such films, including *Who Framed Roger Rabbit?*, the *Back to the Future* trilogy, and *Death Becomes Her.* Cundey earned an Oscar nomination for *Roger Rabbit,* which smoothly integrated a cast of animated characters with live-action film. In *Hook,* Peter Pan flew with reckless abandon, thanks to the magic of digital compositing and wire removal.

How do you light a mechanical puppet so it looks and feels real? How do you make the light falling on the digital creatures look like it was motivated by believable sources? How does the compositing of digital characters effect the overall mood and texture of lighting, the way the camera moves, and the way images are composed? What about the shadows cast by digital characters? There are endless questions like these.

"You have to visualize what it would look like if the digital characters were there, and plan to shoot it as though they were actors," Cundey says. "ILM (Lucasfilm's Industrial Light and Magic) has done a fabulous job. It's not just wire animation with some texture mapping. They have stretched and squashed the skin. There are moving wrinkles. There are details that you take for granted when you look at something in the real world. All of these things add to the illusion."

Cundey handled the casting of shadows in a variety of ways. Sometimes it was as simple as having a grip holding a flag or a cut-out of the right shape in front of a light. It took some practice, and it had to be choreographed like a stage production. The timing and angles had to be perfect. Other times, shadows were computer-generated and composited digitally.

"We usually made that decision on the spot," he says. "There is a quality to a real shadow that is difficult to replicate in a computer. But sometimes it wasn't possible because of the position and angle of light. So we asked the animators for help."

One of the Hollywood trade dailies recently called Cundey "Hollywood's master effects lensman." He doesn't mind being stereotyped. It has happened before. For awhile he was categorized as a specialist in horror films. Another time it was comedies. But the truth is that there is a world of difference between his other visual effects films and *Jurassic Park.* All of his previous films in the visual effects genre were wrapped in an aura of fantasy. *Roger Rabbit* was like a comic book on film.

"He (Steven) brings the audience right into the character's face so they can see what is in his or her eyes."

There were no surprises for the audience in *Hook.* They knew it was a visualization of a storybook, and everyone knows that Peter Pan can fly. It was kind of an inside joke between Zemeckis and the audience when Meryl Streep's head was on backwards in *Death Becomes Her.*

But the key to *Jurassic Park* is hyper-reality. "The audience has to believe the unbelievable," says Cundey. "You have to give them as much reality and recognizable truth as you can. They have to walk in the shoes of the characters portrayed by Sam Neill, Laura Dern, Jeff Goldblum, Richard Attenborough and others. They have to feel the terror when the experiment goes wrong, and a handful of people isolated on an island become prey for the dinosaurs."

Some of the predators are literally bigger than life, like the mechanical tyrannosaurus rex which towered 18 feet. It called for a lot of problem-solving. One important sequence was shot on a stage. The visual perspective from the point of view of the actors utilized looking up at fairly extreme angles. How do you deal with the ceiling? Ideally, Cundey would have simply blacked it out. But that would have given him some serious problems with the fire marshall.

"The grip department at Universal came up with some black louvers which we were able to funnel lights through," he says. "When we needed to, we could angle them to create a black background. At night, we opened them up, and that satisfied the requirements of the fire department."

One of the reasons Spielberg opted to shoot *Jurassic Park* in the Academy standard 1.85:1 aspect ration instead of wide screen anamorphic format, was to give visual emphasis to the huge size and bulk of the biggest dinosaurs.

"In *Hook* we had scenes with rows of people," he says. "An anamorphic frame gave us the scope we needed to capture that side-to-side dimension. In *Jurassic Park,* you get a better sense of the sheer size of tyrannosaurus rex compared to the people in the 1.85:1 format. Also, because of all of the digital compositing, it made sense to stick with the smaller image area.

"They (the audience) have to believe the dinosaurs are real," says Cundey, and everything is riding on that fragile premise. "You have to give them as much reality and recognizable truth as possible, so they say to themselves, 'Oh yeah, that's possible.' They have to suspend a tremendous amount of disbelief, and accept a serious fantasy as real. I've always felt that the way to get an audience to accept the unbelievable is to create reality that they *do* believe."

If you think about the sub-text of that statement there are better frames of reference in Cundey's career for *Jurassic Park* than his big-budget visual effects films. *Halloween,* his breakthrough film with John Carpenter, and *Escape from New York* are among a series of features he shot during the late '70s and early '80s, which helped define a genre of reality-based horror movies made on shoestring budgets. Forget the content, if you can. Look at the power of the images and emotions they evoked.

It's not a new idea. "I heard it first from James Wong Howe when he was about 70 years old," Cundey recalls. Howe was teaching a class at UCLA while he was preparing to shoot *The Molly McGuires.* Cundey was a student with a split major in film and architecture. After class, Howe would move to a nearby coffee shop, where he talked with some of the students. "He said as he got older, he learned to simplify by working with less light. I always remembered that when I was being challenged to do more with less. Low-budget films taught me to think about how to solve lighting problems without making things more complicated. I learned how to improve a scene by subtracting light, and how I could get two or three shots out of one setup."

> ***"One of the Hollywood trade dailies recently called Cundey 'Hollywood's master effects lensmen.'"***

You can see that influence in *Jurassic Park,* where shadows are used to conceal just as light reveals. That's one key to the feeling of anticipation which builds throughout the film. "I think he (Spielberg) used the dinosaurs very wisely,"

Cundey says. "He shows you just little quick pieces of them in the beginning. There is a sense of mystery, and gradually we reveal more and more.

The visual effects gurus used to say less is more. The idea was that if you showed the audience too much, too long, they would figure out the trick. "The idea is to show enough for them to understand the moment," Cundey says, "but not so much so that they are sitting there trying to figure out how we did it. You can compare it to a fisherman baiting a hook."

How long is too long? "It's getting longer, because the effects are getting more sophisticated," he says. "But so is the audience, at least on a subconscious level." In other words, there are no rules for doing this right that you could put in a textbook with impunity. The audience *must* be able to see special effects wizardry as reality. Character empathy is crucial. If they don't care about someone, it doesn't matter if they become lunch for a hungry velociptor!

"The audience must be able to see special effects wizardry as reality. Character empathy is crucial."

Cundey also credits his low-budget film days with teaching him that there is more to cinematography than artistry and craftsmanship. He learned how to get along with the cast, and how to organize and motivate his crew to give him a little more than they thought they had.

"I don't care what the budget is, if you don't have good chemistry, you can't make a good film." His camera operator Ray Stella, SOC, has been with him for 18 years. There are others who have been on his crew for 15 years, and even the newest people have been working together for seven or eight years.

As much as anything else, *Jurassic Park* was a logistical triumph, stretching over some six months of original photography, mainly on four big sound stages at Universal Studios, packed with elegantly detailed sets, from the control room at the park to elaborate jungle exteriors.

"We shot many of the jungle night exteriors, visual effects and action sequences on stages, because it was easier to control lighting," Cundey says. The interiors were mainly captured on the 500-speed Eastman EXR 500T film 5296. The big daylight exteriors were filmed on Kauai, which doubled for the island which was the setting for *Jurassic Park* in the book. Mainly, these are big day exteriors, designed to give the audience a sense of the scope of the park.

It's an interesting example of how the art and craft of filmmaking converge. In *Back to the Future III* Cundey opted to shoot daylight exteriors with the 50-speed Eastman EXR 50D daylight film 5245, because he knew he would be shooting in bright sunlight, and he wanted the richest possible imagery, with deeply saturated colors, devoid of the slightest hint of grain. However, in *Jurassic Park,* there are daylight scenes where the audience gets glimpses of one or more dinosaurs in the background. The latter has to be in sharp focus, because the image of the dinosaur is going to draw the audience's eye to that area of the frame.

Cundey never knew when clouds would float by and block the sun, creating dark shadows. He anticipated shifts in exteriors, because it gave him the edge he needed to pull a deeper stop, usually within the range of T-2.8 to 4. It's a subtle difference, like a surgeon choosing a particular scalpel because it just feels right.

"Steven likes to storyboard," says Cundey. "It helps organize his thinking." But he's also an intuitive director, who will often modify or throw away the blueprint at the

moment of photography. Not this time. "He stuck pretty close to the boards, because of the schedule and the amount of digital compositing."

Cundey shot most of the plates for the scenes destined for digital compositing in the VistaVision format, using a VistaFlex camera ILM developed for *Roger Rabbit.*

"You usually work with a larger format camera for plate work, because you inevitably lose some image quality as you go through each generation of optical compositing," he says. "However, since compositing was done digitally at ILM, it gave us the opportunity to try something new. I shot some of the outside exterior plates in 35 mm film format using the 5245 film. That saved us some precious time. The image quality was pristine, and the composites made with the 35 mm film plates are transparent."

From the beginning, Cundey says, everyone on the project was in touch with the fact that the audience is going to have their eyes on the dinosaurs.

"I don't think you can fool them with people in rubber suits, or conventional stop-motion," Cundey says. "Audiences have become too sophisticated to be fooled by our old tricks. It's not just the digital dinosaurs. The mechanical puppets are the best I've seen. The 18-foot tyrannosaurus rex is based on the same flight simulator used for training F-14 pilots. It's all computer controlled with very sophisticated hydraulics. Its movements are so realistic that it is easy to start feeling like you are out there with a real dinosaur."

But it all comes down to getting it on film. Except for some action sequences, where he used a second camera for coverage, it was a single-camera shoot. He used a Panaflex Platinum camera with Primo lenses for interiors, and usually a Primo zoom for variable focus on exteriors. Diffusion techniques or filters to alter the quality of the image were not used. It's a straightforward, clean look which he describes as "heightened reality."

"Steven believes in visual story-telling," Cundey says. "He understands the importance of setting the mood with light and creating arresting images for the audience. That made it easy for me to say, 'It would look really interesting if all the light came through that window, and the guy is in silhouette, and then he steps into a pool of light.' You can say something like that, and he understands exactly why."

There's a sequence where the characters portrayed by Attenborough, Neill, Dern and Goldblum, have retreated to a bunker, which was built in case something went wrong. Spielberg wanted a dramatic look, dark but still daylight.

"We decided that all of the light sources should come from some very small windows," Cundey says. "We looked for angles where we could backlight. We put a little smoke in the room. That allows the audience to see shafts of warm light slicing through the darkness. Once we did that, we were able to block the scene, and move the actors around. It's instinctual with them. We framed a window between two people, and used some rim light. It's a very dramatic setting which helps establish the mood. They realize that everything has gone wrong, and they have to come to terms with that reality."

He made some occasional use of the new slant focus Panavision lens, which can be adjusted to move the field of focus from side-to-side to front-to-back. "We used to have to struggle with a split-diopter in front of the lens, to hold focus from the foreground to the background," he says. "This lens makes it a lot easier. There's a brief scene with one of the two youngsters in the foreground, and a dinosaur in the background, where Cundey wanted to hold them both in crisp focus. It makes the threat more immediate and menacing. If one of them goes soft, somehow it distances the feeling of imminent danger.

In another scene, Cundey used the slant focus lens to show someone working at a computer console. He wanted the actor in sharp focus, and all of the labels on the console readable. "It helps the audience understand a key story point," he explains. These aren't the types of shots that movie critics write about. They tend to be taken with landscapes, sunrises and sunsets. But it is this attention to detail that draws the audience into a film, and keeps them involved in the story.

"One of the things which intrigues me about filmmaking is the ability it gives you to create an illusion by getting the audience to believe something you have invented," says Cundey. "It must be the same for actors, writers and directors. I don't mind being stereotyped, because right now, I'm enjoying the films I'm shooting. But I'll admit, there are times when I dream about shooting a film with two actors in one room."

The Hollywood Reporter

Call for Entries

The Hollywood Reporter created the Marketing Concept Awards in 1981 to recognize the best campaigns for theater promotions and general public relations. For 1994, the Marketing Concept Awards has been renamed Movie T.E.A.M. Awards, and will continue to honor the best efforts for all aspects of local theater exhibitor marketing.

Suggestions for Entries

- Community Relations
- Merchant Promotions
- Attracting Senior Citizens
- Charity Drives
- Lobby DisplaysBenefits
- Participation with Schools
- Theater Openings
- Charity Premiers

Awards/Prizes

First Prize of $1,000 for Grand Prize for Exceptional Showmanship. Two second prizes of $500 each for ShoPeople of the Year. Three prizes of $100 each to Honorable Mentions. Four prizes of $50 to each of the remaining Finalists.

Eastman Kodak Award

The Eastman Kodak Award will honor theater marketing campaigns that attract infrequent moviegoers. The award carries a cash prize.

Entry Rules

Qualifying dates are Nov. 1, 1992 through Nov. 1, 1993. Entry fee is $50 for the first entry; $25 for each additional entry submitted by the same theater or individual. Entry fee should be made payable to The Hollywood Reporter Movie T.E.A.M. Awards. For additional information call; Jean Nishimura at (213) 525-2084 or CG O' Connor at (213) 525-2120.

Entries should be in scrapbook form. More than one scrapbook per entry is acceptable. Scrapbooks should explain the campaign, and what significance and impact the campaign had. No audio/visual submissions will be accepted.

Entry Display and Awards

Entry Display and Awards Prizes will be awarded at NATO/ShoWest in Las Vegas, February, 1994, where all entries will be displayed.

Entry Form

Title of Campaign .....

Brief Description of Entry .....

Entrant's Name ..... Entrant's Title or Position .....

Theater Circuit .....

Company Name .....

Address ..... City ..... State ..... Zip .....

Entrant's Contact Phone .....

Person(s) Who Produced Entry .....

Send entries to:
The Hollywood Reporter, Attn: The Movie T.E.A.M. Awards,
5055 Wilshire Blvd., Los Angeles, CA 90036-4396
Phone: Jean Nishimura - (213) 525-2084 or CG O'Connor (213) 525-2120

Deadline - Nov. 12, 1993

PHOTO COPY THIS FORM AND MAIL.

Kodak Adds Final Link in Eastman EXR Film System Chain

Eastman Kodak Company has developed an EXR color print film designed to significantly enhance the movie-going experience. After extensive testing, Eastman EXR color print film 5386 is now in general use around the world.

The Eastman EXR film system consists of a group of camera negative films, a color intermediate film, and the new print film.

By providing cinematographers with specialized camera films that are faster speed, less light is required for exposure. The EXR film system features sharper, finer-grained images than previous films and incorporates significant advances in color couplers and other chemistry while taking advantage of computer-aided product design.

Kodak unveiled the first EXR films in 1989. These included 500- and 100-speed camera films balanced for exposure in 3,200-degree Kelvin light. Additionally, an extremely fine-grain 50-speed film designed for exposure in daylight was offered followed by a 200-speed, tungsten-balanced film. Last year, Kodak introduced Eastman EXR color intermediate film, providing a significant step in translating advances in camera film to the motion picture screen.

All negatives are transferred to intermediate stock in post production so as not to damage the original negative in release printing. This common practice involves making an interpositive copy of the negative to use as a master for making duplicate negatives for release printing. Adding generations of film between the original negative and the release prints has typically altered some of the final image quality, usually evidenced in buildup of contrast and grain.

The new Eastman EXR color intermediate film is designed to be a transparent interface between camera film and print. Duplicate negatives made with EXR are virtually indistinguishable from the original camera film. A bonus feature is the seamless interface between EXR intermediate and the high-resolution Cineon digital film system Kodak has developed for special-effects applications.

The EXR print film closes the loop, providing a seamless representation of the cinematographer's images to the audiences. For theatrical release printing, it helps the laboratory to ensure consistent image quality on every theatre screen, whether 50 or 3,000 release prints are made. Final print quality approximates what a director would approve in an answer print.

The development of the Eastman EXR film system represents the first fundamental advance in color film imaging technology since the early 1950's, when the first Eastman color negative film and print films were introduced. Although there have been many subsequent incremental improvements in film speed and image quality over the years, the Eastman EXR system marks the first time that a synergistic array of films was specifically designed to enhance both the artistic aquisition and exhibition of color images.

While EXR is a boon to both the creative community and the theatres, the ultimate beneficiaries are the moviegoers, experiencing movies with higher quality than ever.

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