ELECTROSONIC WORLD

LIGHTING CONTROL, AUDIO, AUDIO VISUAL

No. 2

INSIDE

APOLLO Lift off

ELECTROSONIC announce the introduction of APOLLO, a new audio visual presentation unit for the professional single screen show. APOLLO is suitable for 2 or 3 projector shows and replays several different signal standards. The electronically controlled tape deck is suitable for continuous running and gives Dolby ® high fidelity stereo sound. APOLLO is for both fixed installation and travelling shows.

In 1974 we introduced the ES3601 presentation unit at Photokina. Since then the ES3601 and its related products have made slide based AV a workable and effective medium for industry and commerce. Now APOLLO continues the tradition and in one compact package gives the following outstanding capabilities:

- "Presentation", "continuous run" or "autopresent" modes with projector power control.
- Doly ® noise reduction. 20 watts per channel stereo sound.
- 2 projector control compatible with ES3601, ES3669 etc.
- 3 projector control compatible with SONIC System 4000; includes ALPHASYNC slide position control.

APOLLO is offered with a range of accessories for different applications and for use with different projectors. It uses the new Papst MDD303 3 motor cassette mechanism under microprocessor control. The Electrosonic designed microprocessor control unit also controls the projectors, resulting in a highly advanced yet surprisingly economical equipment package.

APOLLO for cost effective single screen AV shows.

Electrosonic's new APOLLO Audio Visual Presentation Unit.

WHALE DANCE WINS AN AMI

The WHALE DANCE is an outstanding multi-image show produced by London's Royal College of Art. It is partly sponsored by Electrosonic and won a top AMI award in the USA.

The AMI Award.

The 1982 Association for Multi-Image Festival in Philadelphia saw the top award (an "AMI") in the art category go to "The Whale Dance". This 12 projector show was created by Per Dahlberg and is based entirely on his original paintings. Music is by Illona Sekacz and programming by Anthony Parkes.

In the words of Per Dahlberg "It is hoped that the piece holds together as a work of art; but it is also intended to put over the artist's very personal vision of the beauty and tragedy of the Whale, and finally mirror these with a concern for the wider environment".

We can only rarely sponsor audio visual shows. When we do we try to find something special (as opposed to a "demo" type show) and the Whale Dance is certainly this. We are sure that our co-sponsors, the World Wildlife Fund and Ogilvy Benson Mather, are equally pleased. The show is available for non commercial showing by arrangement with us.

See also page 15 "Awards at Biarritz and AMI".

Professional goes professional

Don Fraser in Las Vegas.

WE always like to salute the work of professionals; and in the word of professional industrial photography they don't come more so than Dan Fraser; president of the Institute of Incorporated Photographers and well known both sides of the Atlantic.

Read on page 5 what he was doing in Las Vegas.

ECLIPSE helps launch compact disc

Philips Demonstration Stand at Firato. The white screen is used with ECLIPSE controlled slide projectors.

PHILIPS of Eindhoven chose the Netherlands Consumer Electronics Exhibition "FIRATO" to launch the new Compact Audio Disc to the public. This exciting introduction of "Digital Audio" to the general public is an audio revolution — and Philips' system has been accepted as the world standard. By the end of 1983 there should be nearly 600 titles to play on it.

Philips wanted to use an audio visual presentation to help introduce the product — but of course were equally insistent that the actual audio came from the disc itself. Electrosonic Systems BV really showed that they are "The Systems People" by designing and making in record time a means by which the Philips Disc could be synchronised to an Electrosonic ECLIPSE dissolve unit working with two Kodak Carousel SAV projectors.

Of course there is no "spare track" on a digital disc; but what there is is a cunningly concealed "clock track". The stereo audio signal is encoded in digital form and this allows a few extra "bytes" of information to be recorded that identifies which "track" is playing and the time position within the track.

Interface

So Electrosonic Systems BV designed an interface to read the clock information and also to store the sequence of programme commands to the dissolve unit. The unit is microprocessor based and works on the basis of "matching" a time when a cue is supposed to happen with issuing the cue command to the "ECLIPSE".

Philips present requirements are relatively simple, in that only a single screen 2 projector show is required. However the principle offers several exciting possibilities. The initial demonstration disc has 5 language tracks so the show can easily be seen and heard in a choice of languages. In future we can expect interesting possibilities with multi-programme multi-language choices.

There is also no difficulty in extending the idea to multivision. The interface could easily send out information to ES4003 or ES4103 SONIC projector controllers. We can envisage in the near future clients specifying digital sound for the multi-image show. The cost of "pressing" a single disc is not so unreasonable that a prestige production could not benefit from it — and the idea of no tape noise, no head cleaning, no worry about dust etc. and a signal to noise ratio of better than 90dB must be interesting!

If you are interested in *real* digital sound for your next show ask Electrosonic. We will work with Philips to see and hear it happen.

The Electrosonic special interface unit shown with the Philips Compact Disc Player.

Model of Walt Disney World EPCOT Center.

ES splash down at EPCOT

WALT DISNEY WORLD have opened a completely new park three miles away from the "Magic Kingdom" in Florida. The new park is EPCOT CENTER. Electrosonic are proud to have been involved in a small way in this exciting project — our contribution was a radio controlled multimedia system of some complexity.

We say a "small way" — it could only be small in terms of the overall investment of over $800 million in a new showplace that highlights futuristic ideas and technologies, along with the natural histories and splendors of many nations.

EPCOT Center is the focal point of EPCOT — "Experimental Prototype Community of Tomorrow", envisioned by Walt Disney before his death in 1966, and is described by its designers at WED Enterprises, the Disney "Imagineering" firm, as a permanent World's Fair of imagination, education and exploration that will never be completed. The 260 acre complex has many ride through adventure shows and visual attractions that demonstrate past, present, and emerging wonders of the World.

Our own involvement is technically very interesting as it makes maximum use of both our standard products and of our ability to engineer special systems for unusual needs.

Each night a "Carnival de Lumière" takes place on the "World Showcase Lagoon". This is based on self propelled barges that are equipped with slide projection, lighting, fountains and fireworks.

The barges position themselves in darkness, and, then at the appropriate moment come to life in synchronisation with a shore based 24 channel sound system. The problem then was "how do you keep the activities of a number of independent barges in sync with the sound?"

Electrosonic Systems Inc were awarded the contract to design and supply the necessary control system. In principle each barge is equipped with a computer that is preprogrammed with the show information relevant to that barge; but receives the timing information by radio.

Initially there are 9 barges. 5 of these are "AV" barges and each are equipped with 12 slide projectors, various items of switched lighting and some high power electronic "chasers". The other 4 barges are each equipped with 72kw of colour lighting on 36 dimmed circuits, 28 fountain jets and 24 firework circuits.

All control is based on "System 4000" computer interface technique, with heavy duty thyristor outputs for lighting control; and special analog output circuitry to work the proportional valves controlling the fountains. Equipment is mounted in splash proof cabinets. We also supplied the slide projectors and their special housings. A splended mixed discipline job combining multi-image, lighting control, computer systems and special engineering of a kind that justifies our claim to be "The Systems People".

One of the nine specially built equipment racks for the Carnival de Lumière at EPCOT being completed at the Electrosonic plant.

EDITORIAL

IN OUR first issue we said we were an "occasional publication" and meant it. But here we are again and first of all many thanks to all those people who wrote and phoned to say how much they enjoyed the first ELECTROSONIC WORLD. In fact we had an embarrassing number of requests to take out subscriptions. However, we decided that technical publishing was not a suitable diversification for Electrosonic so we remain "occasional."

We have kept the mixture as before. Naturally we aim to promote our products and services; but all the main news stories have a point. Sometimes technical, sometimes marketing, sometimes a useful tip. Some good stories are missing only because those who promised to send the Editor a good picture failed to do so. So if you really want another issue *please* send us the material!

THE SYSTEMS PEOPLE

Since our last issue the general economic climate has hardly got better — and for many people is a great deal worse. At such times it is important for companies like ourselves both to continue to develop new products and ideas, and to correctly position themselves in the market.

Some of our customers will have noticed that all our latest sales literature emphasises Electrosonic as "The Systems People," We think that this is an important statement of where we stand. It means two things:

- *That in designing, manufacturing and selling products we try and ensure both that the products are complete in themselves and that they provide a complete system solution to the customer's requirement.*
- *That we are willing and able to execute complete turnkey systems involving products made by ourselves and by others. Indeed we could expect that in future nearly 50% of our business might be of this "mixed" kind.*

Our aim will be to continue to serve the needs of the audio, audio visual and lighting control systems markets in the widest sense. We shall have "core products" of our own — especially those that are of an "interface" or "power control" nature; but we expect to increasingly work with associated technologies. At present we are already integrating hydraulic, pneumatic and electromechanical devices into display systems; we are using microcomputers for all sorts of display applications and we are working with new video devices.

In this issue we have devoted some space to describing our main organisation; and in particular how we have split the rapidly changing needs of "project work" from the formality needed for the development and manufacture of reliable products. We expect that many more people will come to know us as "The Systems People" in the next few years.

ELECTROSONIC WORLD

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Electrosonic have distributors and correspondents in major countries throughout the world.

AV WORLD NEWS

ES Tackle Tokyo

NAGASE and Company, our distributors in Japan, have ensured steady sales of Electrosonic audio visual equipment for nearly ten years. But sales in Japan must be supported and this means regular visits. Our Far East representative, Tony Clynick, goes to Japan three or four times a year and is proficient enough in Japanese to work with Nagase's dealer and producer customers.

On three occasions we have participated in specialist photographic and audio visual exhibitions at the British Export Marketing Centre. This has now moved to the World Import Mart in Sunshine City, and is in fact next to the USA Trade Centre. The most recent such event was in June 1982 and was for us the most successful.

This was because of the excellent facilities for giving seminars at the Centre. Besides having an Exhibition Stand we were able to give a 90 minute lecture presentation to an invited audience. The presentation "Audio Visual Applications round the World" created such a demand that it had to be given twice (to over 200 people).

HOUSE SHOW

The presentation was a good example of using our own techniques to good effect. It opened with a showing of "The Systems People" with Japanese sound track, our "house" show which emphasises our resources and the varied nature of the work we do. This was followed by a talk by Bob Simpson which was efficiently simultaneously translated (and the main points of which were available as a printed summary paper afterwards — in Japanese, of course).

Bob Simpson emphasising a point at the Tokyo Seminar (above) while Tony Clynick demonstrates ESCLAMP on the exhibition stand.

The talk was supported by 200 slides shown on two screens side by side — in all cases where text slides were used the English slide was side by side with its Japanese translation — thus it could be reasonably certain that both Bob and his audience were "in sync."

The presentation ended with a showing of "Britain" — a 12 projector show produced for the British Pavilion at Expo 82 Knoxville by Edco-Reed (see story back page). This was hugely enjoyed by the Japanese audience and drew spontaneous applause.

SOPHISTICATION

Until recently the Japanese market has been relatively unsophisticated; however in recent years several producers of international standard have emerged, and some quite excellent work is being done. The Exhibition/Presentation in Tokyo was very timely since the Gemini product at the "small" end and System 4000 for multi-image are ideal for the needs of Japanese users, and the B.E.M.C. was an excellent launching platform.

Magic Lantern goes to Spain

WE are one of the sponsors of "The Magic Lantern Narrowboat Theatre" in which you can see a unique show based on 19th century slides presented on 19th century projection equipment in a suitable 19th century environment — a canal narrowboat. It reminds us that dissolves, animation and freezes all existed before the age of electronics and is splendid entertainment. We have received the following report:

The Magic Lantern Narrowboat Theatre is now in its sixth year and is moving in new directions.

Doug and Anita Lear have performed over 3,000 shows in their boats and the 19th century audio visual equipment used is now to be shown to a wider audience than those "punters" prepared to trek down to the rivers and canals of England.

The original idea was to use narrowboats as vehicles for purpose-built shows, but Doug feels it is important now to produce shows outside the boats as well. They have had offers from all over the world and in October the couple travel overland with their "Take-Away" show, carefully redesigned and packaged in a car and trailer to Spain. Fifteen shows are planned at Barcelona for the 24th Setmoma International de Cinema under the sponsorship of the Catalan Government and the Ministry of Culture in Madrid.

Doug and Anita Lear with friend — ready to give a superb Magic Lantern Show.

Tri-Unial

The 1885 lantern they will be using is a very special Tri-Unial Monster that Electrosonic Limited have converted specially for their outside events. The basic illumination is a set of 24 volt 250W quartz bulbs, but mounted on the original limelight burners. A single fan is set in the chimney section drawing air through the whole body and the transformers are built into the base. This is a satisfactory compromise between the old and new lanterns for the gas system is still intact for those who wish to look at the mechanics of a fine limelight lantern.

Picture throws will be 40 feet to the screen with 12 feet diameter screen area.

Bioscope

This extraordinary show is accompanied with musical effects built to match. Electric organs are married to a 1917 harmonium which is stripped for portability and repainted with "roses and castles." A film has been made to introduce the programme — in black and white for the hand cranked 1905 bioscope used in the show.

"Next year Cannes" says Doug and from the manic glint in his eye you can see he's not joking.

If you want to see the Magic Lantern Show, it is now at the Grand Union Canal; Great Linford Arts Centre; the Manor; Great Linford Village, Milton Keynes MK14 5AX. Telephone bookings should be made in advance on 0908 663966.

ESRAX goes Dredging

Question: "What does an aircraft pilot have in common with a dredger pilot?"
Answer: "They both make a terrible mess if they get things wrong."

TRUE, a dredger pilot is unlikely to kill anyone, but the irresistible force of a large modern dredger meeting the immovable object of a river bank can cause millions of pounds worth of damage to dredger, bank and surrounding land by possible flooding.

Until now, the budding dredger pilot has had no option but to learn his skills by actually controlling a real dredger. Even when under the close control of an instructor, accidents can happen — and do. Now, however, Avimar Systems of Crawley, England, in conjunction with Radio Holland, are building a dredger simulator for KOF Training Schools of Delfzijl, Holland.

Visual simulation

The simulator relies on ten computer-controlled ESRAX random access slide projectors to provide visual simulation of the dredger's environment. The operator is confronted by five rear projection surfaces, arranged in a semi-circle to provide an unbroken panorama of the river and banks. Each screen area is served by two projectors and as the operator controls the simulated dredger, the main computer directs the pairs of projectors to select the slides relevant to each dredger position, using dissolve changes to present a continuous scene to the operator.

The special rear projection screen is to be provided by John King Films of Brighton, who have recently been appointed Electrosonic dealers. Photography, involving very precise image registration, was entrusted to Tony Gidley Productions of South East London, another Electrosonic dealer.

All programming is being carried out by Avimar, who, thanks to the standard ESRAX to RS232 adaptor, required only minimal assistance from Electrosonic's Research and Development Team.

Incidentally if only *slow speed* access of slides was required it would be possible to use standard projectors with ES4003 Eurosonic interfaces for applications of this kind; since the ES4003 can be instructed to select a particular slide for projection.

Avimar was formed by former employees of Redifon Simulation, a company which specialises in the construction of flight simulators for which random access slide projection often forms an integral part.

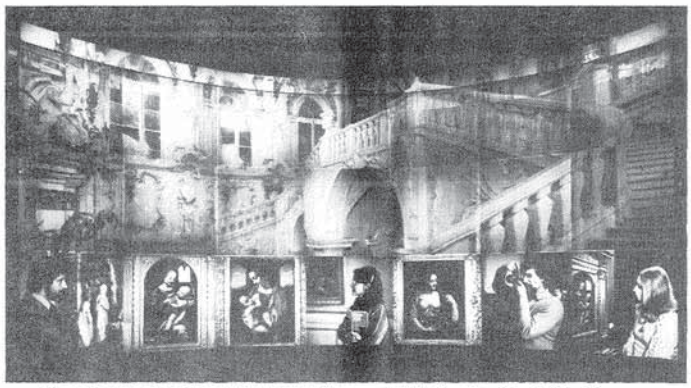
What does an aircraft have in common with a dredger pilot?
ESRAX helped train him.

Constitutional museum wins award

IN our last issue we reported the interesting audio visual installation at the South Australian Constitutional Museum in Adelaide.

The whole concept of the museum, with its "multi event" approach and extensive use of audio visual techniques has proved a great success since its opening in July 1980.

The success has been recognised by the receipt of an "Advance Australia" award. This is normally given to individuals who have made a significant contribution to Australian society — the museum was the first institution to receive the award. The award citation noted "the establishment of the World's first fully integrated audio visual historic display in the field of political history."



56 projectors on a 21m x 9m "screen" present "We Russian People" in Moscow.

We Russian People or a Soviet experience

THE Czechoslovakian Agency "ART CENTRUM" has an international reputation for audio visual programme production. The Czechs work first came into International prominence with the outstanding Czech pavilion at Expo 67, Montreal. Since then their work has been seen in many places; from Moscow to Tokyo; Spokane to Delhi; Warsaw to Tripoli.

The way in which ART CENTRUM works is as a commercial and selling agency for artists of all kinds. The actual creative work is, of course, carried out by individual artists or "teams." There are in fact at least three different teams working in the audio visual medium at any time. Usually their brief goes beyond just the creation of an AV show. They also design the complete environment in which the show is to be given — and often fabricate all the display material. The emphasis on "total production" results in exciting "multi-image theatre."

Probably the best known team is the SCARS team (SCience ARt Sense) headed by Professor Jaroslav Fric. A recent project of their was the production of a major audio visual "spectacular" for permanent installation in Moscow. The client was VDNH, The Fairs and Exhibition Authority. They commissioned a show called "We Russian People" for use at the permanent exhibition site. The actual "theatre" is an existing rotunda; built on a generous scale; that is intended to give visitors an overview of the USSR, both as a country and as people.

Problems

The former aspect was already dealt with by a huge relief map display on the walls of the rotunda. The "people" aspect was to be dealt with by the show. The problems were twofold; first the sheer size of the place; secondly where to put the "screen" when the walls were already being used for display.

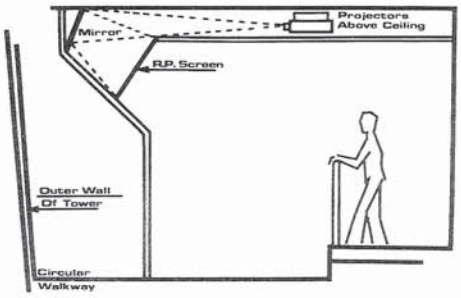
The first problem was solved simply by a big mosaic format. The overall screen size is approximately 21 metres wide x 9 metres high (70ft. x 30ft.) divided into 21 "screens" of 3m (10ft.) square each. A total of 56 slide projectors are used; together with 35mm motion picture projector and programmed lighting effects.

The second problem was solved in a most interesting way. The bottom seven "screens" are of conventional matt white material. The top fourteen are provided by a "curtain" of glass ropes that automatically close across the map display at the start of the show. The result is very impressive.

Another interesting point about the production was the method of making the slides. Most "western" AV productions are done using reversal film — particularly for example Ektachrome and Kodak slide duplicating film. Because of the very limited production time in the USSR; and because the work of slide and film duplication was to be carried out by the Barrandov Laboratories in Prague who are well equipped for the processes involved; the whole production was made using negative-positive process. All original still photography being on Kodacolor or Vericolor, and all slides duplicated into 46mm Vericolor slide film (a film stock not often encountered in Europe and rare even in the USA!).

The fully automatic show system was designed and manufactured by Electrosonic. All projector control is by ES3003 system and 64 auxiliary circuits (including the movie projector and glass curtain control) are switched by ES8 decoders. Two 4 channel tape decks (main and standby) with automatic rewind system are fitted in the control rack assembly. The entire system was installed by Art Centrum's own technical staff in association with the VDNH staff.

AV at the top



ELEVATION LEVEL 3 THEATRE

Difficult optics in Centrepoint Tower, Sydney.

THE recently completed Centrepoint Tower rises 1,000 ft. above the streets from the centre of Sydney. At the base of the Tower is the largest shopping complex in Sydney, comprising six floors of specialty shops and stores as well as exhibition, conference and function rooms. This six floor complex is also linked by underground tunnels and overhead bridges to other major shopping complexes in adjacent city blocks. The Tower was conceived as a future project and extension when the Centrepoint shopping complex was first designed. In fact, foundations for the tower were originally laid some ten years ago.

The Centrepoint Tower construction was completed in March 1981 and opened to the public in early September 1981. The stem of the Tower carries three high speed double deck elevators and a staircase fire escape. At the top of the stem there are eight floors; four of which are occupied by a weather station, a relay transmission station and plant and equipment. The remaining four floors, all commanding an excellent view, are for public entertainment. Two of these floors contain revolving restaurants, while the remaining two floors serve as observation decks which contain various attractions, including two multivision theatres.

Two theatres

Level Three Multivision Theatre has a five screen, ten projector presentation on Sydney Harbour, while the Level Four Theatre contains a four screen, eight projector show on towers of the world and, in particular, the Centrepoint Tower. Both theatres are controlled from a central control room on Level Four and are entirely "autopresent" with programme start buttons at the entrance of each theatre.

The installations are noteworthy due to the limited amount of space available and that maximum space had to be considered for the audience. In order to accomplish this in the available space, both presentations use rear projection with complex mirror placements. The complexity of the mirror placements is further complicated by the curved shape of each theatre. The constant flow of visitors to the Tower is of utmost importance and, as a result, the audio visual programmes are each of approximately four minutes duration and the audience is standing at all times.

Centrepoint Tower given an amazing view of Sydney, and Multivision as well!

Bruce Hamilton

The concept for the Centrepoint Multivision shows was designed by Bruce Hamilton Pty Ltd and all software for both theatres was produced by Bruce Hamilton. The show systems are standard Electrosonic ES3003 "Autopresent," with three channel sound and all projectors are fitted with automatic lamp changers.

In the Level Three five screen theatre, the projectors are located in the ceiling above the heads of the audience while in Level Four the projectors are on the floor in front of the audience. In both cases the projectors are in dust free, sealed compartments which received ducted and filtered conditioned air at all times. The technical installation was by our Australian distributor, Electrosonic AV Systems.

Sweden and Singapore excel in visitors centres

ASEA Forum at Vasteras, Sweden.

ELECTROSONIC are great believers in the value of visitors centres, especially for large organisations. Some firms or departments seem to regard visitors as a nuisance when in fact they represent one of the best of all public relations possibilities.

Firms in Sweden were among the first to appreciate both the value of visitors centres and the contribution that audio visual could make to them. This was in no small part due to the pioneering sales efforts of our Swedish distributor Ljusteknik AB, who have always had excellent demonstration facilities themselves.

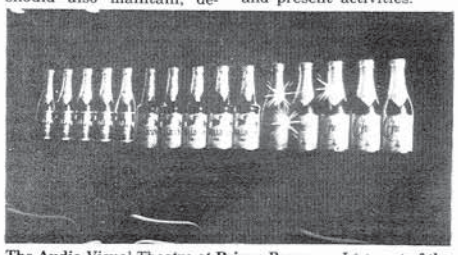
Over ten years ago ASEA built ASEA FORUM as a visitors centre for customers, employees and the public. It has always housed excellent examples of AV both in direct promotion of the company's products and as an art and entertainment form. The most exciting show uses 36 projectors on a 9m x 4m screen with soft edge technique both vertically and horizontally! Production is by Hans Hammarskiold.

Atlas Copco has a visitors centre "EXPO 81" with the theme "The World our Worksite." All senior members of staff are given a booklet that tells them how to make best use of the centre.

It is pleasing to us that Pripps Brewery, like ASEA, should first of all use Multivision Technique as part of their visitor tour (again starting back in 1972) but should also maintain, develop and improve the use of the medium — with new productions every few years.

Round the world to Singapore we notice not only private industry using the technique — but also public corporations. "Business Times" of Singapore recently carried an article describing five such installations for the Singapore Bus Service, the Jurong Town Corporation, the Ministry of Trade and Industry, the Housing Development Board and the Port of Singapore Authority. (All, of course, equipped with Electrosonic Systems by our distributor, Rediffusion Services (Singapore) Pvt Ltd.).

The significance of all these installations is that they are permanent shows. They are either in "presentation rooms" or exhibition areas; but their specific function is to give a consistent, entertaining and informative outline of the organisation's background, history and present activities.



The Audio Visual Theatre at Pripps Brewery. Just part of the Visitor Tour.

Parks Canada use Electrosonic in remote places

THE interpretation of historic sites, of places of natural beauty and of places of architectural interest can be an excellent application of slide based audio visual. We could give examples from all over the world, but one of the most interesting comes from Canada.

In 1980 two shows with the unlikely titles of "Kluane" and "Lower Fort Garry: a window on the Fur Trade" won AMI awards at the Association for Multi Image Festival in Atlanta. Both were produced by Patrick McCloskey, formerly of Parks Canada, Winnipeg, Canada, for Visitor Centres at Kluane National Park in the Yukon Territory, and Lower Fort Garry National Historic Park on the banks of Manitoba's Red River.

The challenge with "Kluane" was to inform and inspire visitors at the Centre, many of whom had never heard of Kluane before, and had no idea they were even near a national park of international significance. (In August 1980, Kluane National Park, along with the neighbouring Wrangell St. Elias area of Alaska, was officially declared a World Heritage Site through UNESCO).

The park is bounded on one side by a wide valley through which runs the famed Alaska Highway. The "Front Ranges," mountains rising from this valley to a height of 9,000 feet, are impressive enough in their own right but for the highway traveller they obscure the real magnificance of Kluane; the St. Elias Mountains, rising up another 10,000 feet to their culmination in Mount Logan, 19,850 feet, the highest mountain in Canada and the second highest on the North American continent.

Between the peaks lies the largest icefield in the world outside the polar regions; and spectacular valley glaciers, some over 60 km long, wind their way to the lower valley "like the curved spokes of a huge icy wheel," to quote the multi-image show.

Apart from a small percentage of wilderness hikers and mountain climbers, very few visitors to the Centre actually enter any distance into the park because of its ruggedness and relative inaccessibility. The six projector show, on an ES300 and ES 3003's, gives them a vicarious trip into the park, a look at the plants and wildlife, and a background history of native and mining activities in the area. Vistiors can then travel the length of the highway with a sense of the spectacular country that lies just beyond.

In the year following the opening of the show and adjoining exhibit, visitors to the centre increased from 5,000 to 18,000 per month.

Fort Garry

Lower Fort Garry was built in the 1830's, a stone fur trade post with an element of British elegance in the vast wilderness of what was then the Canadian North West. For a short while the fort was the Hudson Bay Company's headquarters for the region, after that it served as a trans-shipment point, with crews of voyageurs and York boats setting out with supplies to the posts on the northern rivers, or with furs to Hudson Bay, where company ships took them to London.

The fort has been restored, and costumed animators act out their roles of daily life in the fur trade. The show, using an ES3000 and three ES3003's, gives visitors a background history to the fur trade; its beginnings, the rivalry for fur, the drive ever further north, the rise of importance of the southern plains (for buffalo meat to feed the traders and boat crews), the establishment of the Red River Settlement, and the building of Lower Fort Garry. Visitors can then tour the adjoining exhibit, which gives more detail about the settlement and the bartering system, and then the fort itself, for a look at the daily life.

ELECTROSONIC WORLD

UNIT AND VISUAL

The new Electrosonic AV products

The introduction of Apollo as announced on Page 1 marks the completion of the development of a new range of audio visual products. While there will be further new accessories and associated products; the main products are now all in place and it becomes easier to see our overall philosophy. On this page we review the new range with particular emphasis on applications.

"Plus ça change, plus c'est la même chose" could well be applied to single screen and multi-image audio visual. It is our belief that the underlying needs of the actual users of AV have not changed very much. However, new technology and improved manufacturing facilities allow us to offer new products that either represent improved value for money, or embody technical features that were not possible a few years ago. The new technology includes such items as microprocessors, which are now the basis of all our principal AV products, and the logic controlled tape deck in a form appropriate to AV needs.

USER NEEDS

We believe there are four important points to consider: —

1. Users should try the simplest equipment package that meets their needs. The idea of "upwards expansion" is all very well, but if it means increased complexity for the simple application it should be avoided. Our aim is to get shows shown.
   Thus while it is fine that a big product launch should be "staged" by a professional crew; "every day" AV must be easily operable by the end user.
2. There is a big distinction between "single screen" and "multi-image." The great majority of every day" AV is single screen, especially where the show must be travelled. It is sensible therefore to optimise the single screen product.
3. Does the equipment need to be record / replay or replay only? We believe that most single screen industrial end users are best off with replay only. Professional shows must be made in the studio. However, there has been the problem of how you make the "show copies;" and there certainly is the case that the smaller user needs an all-in-one package that does everything.
4. Is the show travelling or fixed installation? If the latter then "Autopresent" operation is essential. Electrosonic are still the only AV manufacturer that fully understands the implications of Autopresent. Our Autopresent equipment includes projector power control, full mechanical zero checking, operation of houselights etc. etc. Autopresent really does allow complex multi-image shows to be run from a single push button in fixed installations.

ECLIPSE Dissolve Unit.

Our new equipment introduces several new features, such as: —

(a) Increased audio output power to minimise the need for external amplification.
(b) High fidelity sound with Dolby ® noise reduction.
(c) Means of making show copies within the ES range.

MERCURY Infra Red Remote Control for GEMINI and APOLLO.

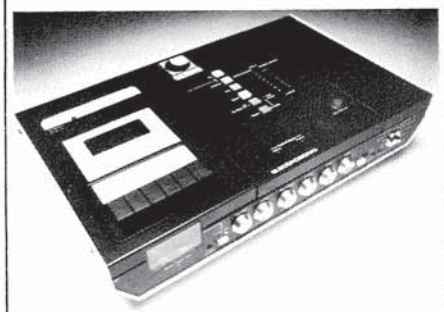
(d) Continuous and Autopresent operation now possible on compact cassette, thanks to the introduction of 3 motor logic controlled tape deck. This simplifies operation and improves sound quality.
(e) "Single Screen" systems extended to embrace 2 or 3 projector operation.
(f) Multi-signal standard capability.
(g) Introduction of Infra Red remote control for lecture purposes.

2 PROJECTOR

In the "2 projector" area we have maintained our existing signal standards to ensure compatibility with existing equipment. Whereas before we have had separate products for "impulse" and "continuous" operation, we now combine the two in one product. The basis of this work is the "dissolve unit;" however, we expect most users want a simple lightweight unit for travelling shows will be delighted with another member of the ECLIPSE family the ES461 GEMINI. This is a complete record / replay presentation unit for 2 projectors. Show making can be by "push button" or "sli-

DEDIPRO allows simple show making on ES4603.

GEMINI



Outline Specification:
Audio Visual Cassette Recorder with built in dissolve unit; allowing use of both the continuously variable FM System and Impulse System. Independent record and replay of audio and control tracks. 20 watts audio output.

Projectors:
Works with two projectors that have built in triacs. Also supplied with triac adaptors to work with all types of "Carousel" ® Projectors.

Optional Accessories:
Microphone. Loudspeakers. Infra Red Remote Control. Carrying Case.

Intended for:
Small "in house" production units. Especially those involved with training programmes. General two projector "presentation" applications.

APOLLO

Outline Specification:
Combined tape replay and dissolve unit; suitable for two or three projectors. Switchable to be compatible with FM. Impulse and Alphasync ("SONIC") signals. Fully automatic tape deck. 20 watts per channel stereo sound with Dolby ® Noise Reduction. Operates in presentation; autopresent and continuous modes.

Projectors:
Via triac adaptors Apollo will work with all Carousel ® type projectors. In the case of Ektagraphic II projectors slide position tracking not available in SONIC mode but still plays program.

Optional Accessories:
Loudspeakers. Infra Red Remote Control. Carrying Case.

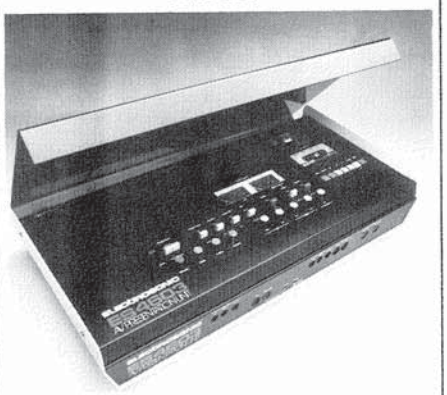
Intended for:
The great majority of Industrial, Commercial and fixed installation single screen audio visual presentations.

to buy the complete "presentation unit" including audio as this is usually much more practical. For those who need a dissolve unit on its own (AV producers; amateur photographers; lecture theatres; displays without sound) the "ECLIPSE" dissolve unit is ideal.

"In House" producers of single screen shows; and those who want a simple lightweight unit for travelling shows will be delighted with another member of the ECLIPSE family the ES461 GEMINI. This is a complete record / replay presentation unit for 2 projectors. Show making can be by "push button" or "slider". Tape stop can be pre-programmed so a presentation can be mixed "recorded" and "lecture" — especially helped by the optional MERCURY wireless hand control. ES461 has high quality mono sound with 20 watts output. It is NOT intended for permanent exhibition continuous use; although for a short trade show it is permissable to use an endless cassette, in which case automatic projector reset and deck re-start is available (but NOT power control).

There is a choice of loudspeakers for Electrosonic Presentation Units, depending on fixed or travelling use.

ES4603



Outline Specification:
Combined high fidelity Audio Visual Cassette Tape Recorder and computer tape interface. Independent record and replay of stereo audio and control tracks. Fully automatic tape deck. 20 watts per channel with Dolby ® noise reduction. Operates in record, presentation, autopresent and continuous modes.

Projectors:
Does not operate projectors directly. Produces ASCII signal for feeding to one or more (maximum 8) EUROSONIC ES4003 or SONIC ES4103 computer projector interfaces. Each of these controls three projectors so capacity is from 3-24 projectors.

Optional Accessories:
Loudspeakers. DEDIPRO hand controller / programmer. Carrying Case.

Intended for:
Both fixed installation and travelling multi-image shows. Also a producer's unit for making show copies and previewing shows.

ES4 Adaptors for SAV series projectors.

APOLLO

Professional producers are naturally concerned that their clients are able to show their shows to the highest standards. APOLLO allows just this; with high fidelity stereo sound in all modes. Some points worth noting:

— In "continuous" and "autopresent" the rewinding of the tape is fully automatic. It is so fast that it will normally be back to the start before the projectors have homed. It is also safe because of the special circuitry to avoid a "hard stop".
— APOLLO is able to play all shows made for ES461 GEMINI and shows made for Electrosonic equipment, such as ES3601 and ES3669 SHOWTAPE.
— APOLLO is able to play 3 projector shows to the SONIC "System 4000" standard. (Show copies would in this case be made on ES4603, see later).
— APOLLO is designed for continuous use. For "Autopresent," projector power control is built in.

ES4603

When it comes to Multivision or Multi-Image we believe it is no longer appropriate to include the projector control within the audio package. It is difficult to achieve high fidelity sound if this is done and recording facilities are also required. Furthermore in most multi-image systems it is convenient to have the audio package some distance from the projectors.

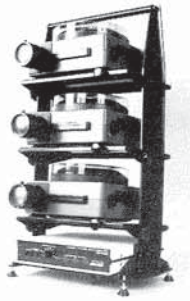
The ES4603 presentation unit is our "Flagship" product. It is intended for use with ES4003 or ES4103 "SONIC" projector interfaces, part of our "System 4000" multivision control system. Most users of ES4603 will "master" on reel to reel tapes and make the show on computer; in which case ES4603 makes the "show copies." Note:

— You can master on ES4603 if you wish. (But not recommended as good professional practice for major shows).
— ES4603 is also a show copy maker and proving device for APOLLO. Producers should therefore have ES4603 to cope with shows of all sizes up to 24 projectors.
— While all shows above 3 projectors must be made on computer, it is possible to make simple 3 projector shows on ES4603 using the DEDIPRO hand control / programmer. Complex 3 projector shows are best made using the computer).
— ES4603 is the ideal basis of small fixed installation multi-image shows. It is compact, good to look at, easy to use, and heavy duty.

ACCESSORIES

Because of the variety of applications of the basic presentation units, we now offer accessories such as carrying cases, loudspeakers etc., as separate items. This allows the user to have optional equipment for his application.

Electrosonic audio visual presentation units give the user the highest specification, the simplest operation and the best value for money.



Typical Projector Stack with ES4003 EUROSONIC — as used with ES4603 Presentation Unit.

ELECTROSONIC WORLD

AV PRODUCT NEWS

Development investment

All of our new AV products are microprocessor based; and all are designed for efficient series production, particularly in respect of rapid testing of the circuit board assemblies by computerised testers. So important is this aspect of product development that it can actually take as long to write the test program and design the test procedures as it does to design the prototype product.

Peter Smith is in charge of unit audio visual product developments. His team is supported by a massive investment in microprocessor development systems, which are used both for developing microprocessor programs (e.g. for Z80, 8085, 8048) and for developing micro-computer programs (e.g. for APPLE II and other small computers).

All unit AV products are developed at our Woolwich plant but manufactured at Maidstone (see page 14).

Peter Smith working with one of our Genrad 2300 Advanced Development Systems (above). The ES461 Audio Assembly being mounted on the Beaver Computer Tester (below).

Gemini in Blackpool and Las Vegas

Just before going to press we received this report from Don Fraser.

NOT long after becoming president of the Institute of Incorporated Photographers, I found myself not only booked as a speaker for two of the world's largest photographic conventions, the I.I.P.'s Conference at Blackpool and the Professional Photographers of America's massive convention in Las Vegas, but also needing to visit all the regions of the I.I.P. to meet and talk with members. I had to communicate succintly and powerfully, show photography in use and make a lot of points about the new and positive direction that the Institute of Incorporated Photographers is taking. What better way to do it than with a well-programmed AV show . . . yet amazingly enough, although I'm a well known photographer and indeed my company, Academy Studios, has served the AV industry extensively, we'd never got round to producing a show for ourselves.

At the time both GEMINI and the Kodak SAV 2050 projector were new to the market. However, after I had called both Kodak and Electrosonic, AVE of Kingston (dealers for both) were able to put a complete package together and because of the flexibility of the unit, and the easy to follow instructions, my team were able to put together a striking programme within 48 hours.

This programme has been shown at I.I.P. Regional Meetings, at the National Conference in Blackpool and the P.P.A. Convention in Las Vegas. It's an excellent "mood-setter" and is only the beginning of many ways in which my team plans to use this new tool. Furthermore, we are finding that whenever it's taken out to presentations, the immediate reaction from clients is that they want to have identical equipment and service. It really is the easiest system to sell that I have come across in many years in this business.

Forox with ES in UK

Since mid 1981 Electrosonic Ltd have been distributors for Forox cameras in the United Kingdom.

Forox Corporation of Stamford, Connecticut, USA, were the originators of the rostrum camera designed specifically for slide work. Their camera is very much the one by which others are judged.

At Electrosonic we felt that it was important that we should be able to support the AV producer with a wider range of products and services and the association with Forox is a natural extension of our activities.

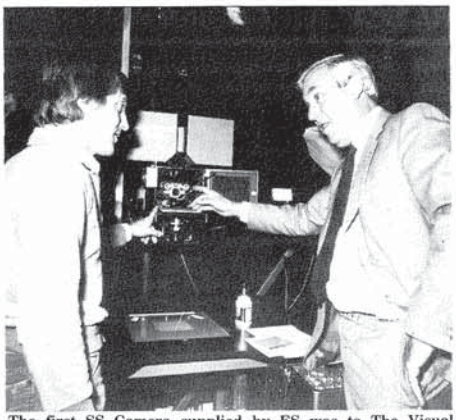
However, cameras are very different from projectors and we realised we had both a lot to learn about the product, and that we would have to provide specialist services of a new kind. We therefore set up a "Forox Team" to handle the range.

Denis Naisbitt, one of our founding Directors and in charge of the mechanical design of our standard products, acted as temporary "Forox Product Manager" while we looked for staff, and is still in overall charge of the product from a technical point of view. Tony Corbett is now in charge of Forox Sales, and Alan Fyfe is responsible for installation and service.

Our main sales have so far been of the big "SS" camera which is 10ft high and weighs about half a ton when packed! However, we are now also getting a lot of interest in its smaller brother the table top SDD.

Apart from sales in the UK we have also sold individual cameras to places where Forox are not fully represented and where we have a strong association. Such sales include those to Sum Films in Madrid, Ganz & Co in Zurich and Multivision SrL in Rome.

We have recently held instruction courses in the use of the camera — and especially how to achieve special effects. The course is a joint venture between ourselves, Forox Corporation and the Royal College of Art; and has been very well received. We expect to repeat it.



The first SS Camera supplied by ES was to The Visual Connection of London SW3. Here Denis Naisbitt (right) explains a point to TVC's Geoff Robinson.

The first O'Forox

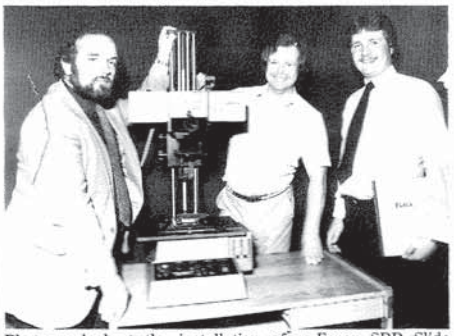
Electrosonic recently supplied the first slide rostrum camera in the Irish Republic to a studio in Dublin.

The camera, a Forox SDD was installed at the studios of Audio Visual Concepts one of the major producers of single screen and multivision presentation in Ireland.

The arrival of the Forox means AVC are now able to offer a total service "in-house."

"If things go according to plan we'll have another one by this time next year," claims Michael Mooney of AVC.

Formed two years ago, AVC's clients include the Irish Development Authority, Bank of Ireland and Irish Distillers.



Photographed at the installation of a Forox SDD Slide Rostrum Camera are (centre) Allan Fyfe of Electrosonic Ltd, and Michael Mooney (left) and Paul Ferry (right) Directors of Audio Visual Concepts Ltd.

NEWS ON ESCLAMP

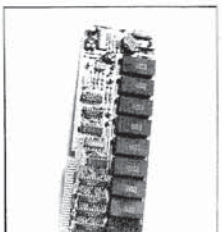
The basis of our "System 4000" for multi-image control is the idea that projectors and similar devices are controlled by standard computer data. This in turn leads to the idea that show programs can in theory be put together by any computer-like device.

Thus we can imagine that small shows could even be made on "pocket sized" devices, and that big shows might be based on an industrial computer.

However, whatever computer is used a suitable program for show production must be written for it. We therefore decided to start with programs for just one computer — and we chose the APPLE II because of its wide international distribution because it was the right "size" for most applications, because it lent itself to having additional "cards" added to suit our particular need and because it was already widely accepted in the markets we were aiming for.

Our standard production program for multi-image is ESCLAMP. This is to program the activities of up to 24 automatic slide projectors and 36 auxiliaries. The program is very powerful and, in combination with the SONIC and EUROSONIC projector interfaces, offers many facilities not found on any other system.

ESCLAMP is an evolving program, and is now into its third "edition." For those who might have only seen ESCLAMP "Phase I," we summarise some of the improvements made in "PHASE II (issued August 1982) and in "PHASE III" (issued November 1982):



"Showcard" allows shows to be stored "solid state" in the computer.

- Phase II includes the ability to send projectors to designated slide positions; and to control projector power; also a "repeat" facility to allow individual cues or groups of cues to be repeated. This greatly speeds up entry. Many other minor improvements.
- Phase III is a much "faster" program with a quicker response from the computer to all commands. Editing is also made faster by the ability to adjust fade times, "times to" and clock times by separate commands (as opposed to rewriting or modifying the cue line itself). There is also a huge increase in cue capacity in working memory.

While ESCLAMP for 24 projectors will meet 95 per cent of multi-image production needs, there will always be the need for "specials." These we supply on a "project" basis and some of the unusual applications we have already met or are working on include:

- programs for controlling large numbers of auxiliary switch functions.
- lighting control systems using all the flexibility of effects of System 4000
- programs for 48 projectors (and more)
- use of larger computers for big displays using unlimited numbers of controlled devices
- use of distributed small computers for dispersed displays

An example of a "special" is the ability for us to supply the APPLE computer with ESCLAMP "show run" software in PROM, and the actual "show" software in EAROM. This is ideal for fixed shows, repertory or theatre shows since no disk system is needed and the entire system is "non volatile." Shows can easily be changed by coupling a disk drive just to reload the EAROM card. This "showcard" is a special development by Electrosonic and we would be pleased to discuss possible applications with show producers.

Derek Swindon evaluating the latest edition of ESCLAMP. Electrosonic's computer program for making multi-image shows.

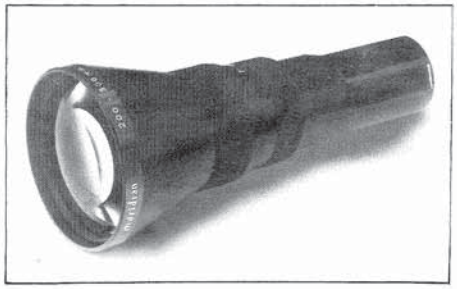
Meridian Lens range extended

The "Meridian" range of objective lenses has proved a great success with professional customers. In particular the 110-200mm zoom lens announced in the last issue of "Electrosonic World" has filled a particular need for the travelling show.

Now we are pleased to announce further new products in the range. First for those long and awkward auditoria a new LONG RANGE ZOOM lens 200mm - 300mm.

Then at the "other end" we can offer a zoom lens of exceptional quality with the range 60-110mm. Now, therefore, just three lenses cover all requirements 60-300mm!

Besides high quality fixed focal length lenses of 25, 35, 50, 60, 90, 150, 180 and 250mm lenses and the "standard" zoom of 70/120mm which are normally always in stock we are also able to supply "specials" of other focal lengths (e.g. 400mm) and lenses or lens mounts designed to eliminate keystone distortion in short back projection applications.



The new long range zoom lens. Meridian 200 - 300mm.

LIGHTING NEWS

Lighting control equipment based on thyristor dimmers is an important part of Electrosonic's product range. We manufacture unit dimmers, automatic dimmer systems for commercial, architectural and entertainment applications, and, of course, multichannel dimmers for theatre and television. On this page we report on just a few of our recent installations.

HOLIDAY INNS USE ELECTROSONIC

MUCH of Electrosonic's work on hotel projects takes place outside the UK on major international projects. A recent exception to this was our involvement on the Holiday Inn at Glasgow which is the latest of several new hotels opened by Commonwealth Holiday Inns in the past few years.

A requirement for all major hotels is for lighting control in Public Areas. This gives the facility of changing the mood of an area by altering the lighting scene to suit particular events or times of day.

At Glasgow the lighting in the Restaurant, Coffee Shop, Reception, Lobby, Residents and Cocktail Lounge and Entertainments Room is controlled by Electrosonic's ES6090 modular plug-in automatic dimmers.

Multi Scene

Multi scene lighting control for these areas is given by using automatic 4 level dimmers and controlling each area from one set of four push buttons. For example the Restaurant will have three different scenes for Breakfast, Lunch and Dinner, making the operation simple yet giving a sophisticated mode of control.

All the preset lighting levels are set on the dimmer modules which are housed in full front access equipment racks. These also contain the mains distribution equipment associated with the dimmed lighting circuits.

The electrical contractors for this project were Drake and Scull (Scotland) Ltd and the end client was Commonwealth Holiday Inn. The hotel was opened in Spring 1982.

Croydon

We are also pleased to announce that the Holiday Inn, Croydon which is due to open in 1983 will be equipped with Electrosonic Dimmers. This hotel will be the first International standard hotel in Croydon.

The lighting control of all the public areas will be similar in nature to that already installed in the Holiday Inn, Glasgow. An interesting feature of the lighting control equipment is the flexibility of the equipment used in the Banquet Area.

The performance lighting is controlled from a 24 channel 2 preset board with master control and dipless crossfade plus a special effects section. By using a pin matrix this portable board is capable of controlling 54 dimmers split across three phases with one phase connected to each section of the Banquet Area.

Partition link

THE Banquet Area can be split into three zones which can either be used independently or in combination. Micro-switches sense whether the partitions are open or closed and the house-lighting control panels in each zone either control their own zone only or two or three zones if the partition(s) are open.

The client is the Croydon Hotel and Leisure Company and the hotel will be run by Holiday Inn International. Consultants are Brown Crozier and Wyatt and the electrical contractors are Drake and Scull Limited.

A public area with Electrosonic lighting control at Holiday Inn Glasgow.

Rockboard at Thailand Bicentennial

One of the many events at the Thailand Bicentennial Celebrations was an open air concert and a separate Light Show. The contract for providing all the stage lighting for these shows was awarded to our Lighting Distributors in Bangkok, Messrs Bangkok Cine Graphic Centre.

Electrosonic supplied ES6090 series rack mounted dimmers, together with a "maximum facility" 60 channel Rockboard. We also supplied weatherproof lamp housings — to cope with possible tropical rainstorms.

All the equipment supplied by Electrosonic now forms part of a permanent installation. The Rockboard is used for the appearances of International Concert Artists.

Multiway

At the time of publication a typical batch of MULTIWAY systems was going through the factory. A 48 channel expandable to 60 for the Commonwealth Institute in London, an 84 channel to go to North Yemen, a 60 channel for Al Ain Sports and Social Club, a 60 channel for the Wirral Centre, Lancashire, and another 60 channel for a Middle East client.

Roger Beaurain Lighting Development Director.

Lighting development

Roger Beaurain joined Electrosonic in 1968, becoming Technical Director in charge of lighting products in 1973 Roger has been responsible for the development of all of Electrosonic's dimmer products since he joined us — and with such successful products as the ES6090 series, the ES10 and ES14, the ES6000 series and "Flatapak," "Linkit" and "Multiway" he has much to be proud of.

Roger has an unrivalled knowledge of the specialist aspects of power control — especially in respect of thyristor performance and RFI suppression. He is currently working with Trevor Forrest on developing new accessory products to meet the expected new demands of the mid 1980's.

ES10 and ES14 Unit Dimmers

ES14 for ITN

The ES10 and ES14 range of single unit dimmers have proved popular for many applications requiring a professional performance but with simple control facilities.

In the UK the opening of a fourth Television Channel meant that Independent Television needed additional production and editing suites; all of which are in use round the clock and all requiring simple lighting control.

Dimmers used had to meet ITN's requirements in respect of interference suppression. Samples submitted by Electrosonic were approved, and as a result 20 ES14 dimmers were supplied for dimming fluorescent lighting in the editing suites; and an ES6090 system was supplied for the main control room.

LIGHTING UP A BANK

NEGOTIATIONS on three continents preceded our being awarded the contract for lighting control at the Joint Banking Centre in Kuwait. It was truly an international project. We and our distributors in Kuwait, Gharabally Ltd., were working with American architects (Skidmore, Owings, Merrill), a British-Kuwait group of Managing Consultants (Pan-Arab Consulting), a South Korean main contractor (Han Yang Corporation) and American Lighting Designers and Electrical Engineers (Jaros, Baum and Bolles).

The design of the lighting required the control system to:

- provide visual interest in the working environment and banking halls by changing lighting scenes;
- ensure appropriate lighting for the tasks in hand and time of day;
- modify lighting according to external factors, such as daylight, outside temperature, partial power failure, partial air conditioning failure;
- ensure reasonable efficiency in the use of electrical energy.

Each building has a number of dimmer racks located to minimise site wiring. They in turn are controlled by a scene setting and timer unit. Seven scenes are provided with each giving control of typically 24 circuits. The scene setting panel can be subject to manual selection, but is usually under the control of a real time microprocessor based clock which is able to initiate up to 64 different events on each day of a seven day cycle (plus an "8th day" for holidays etc). Cross fading between scenes is very slow and "dipless."

Installed dimmer capacity is approximately 700 kW.

Timer control and scene setting panel at the Joint Banking Centre.

One of the lighting control racks at the Joint Banking Centre, Kuwait.

Tom Geary.

Lighting sales

Our lighting sales team consists of specialists, each of whom works in a particular market area. All are frequent overseas travellers since the sale of lighting control requires close co-operation with both customer and consulting engineer — wherever they happen to be! Tom Geary is Manager of the "Lighting Team."

SHORT REPORTS

The Mandarin Hotel in Singapore recently opened a new banqueting suite. We supplied the lighting control system based on ES6090 dimmers and custom built "Multiway" Theatre lighting controls. As in many hotel banqueting suites provision had to be made for splitting the suite and giving separate control for each section. Sarner Audio Visual were the consultants for this job.

"Oil City of Norway" is how the people of Stavanager see themselves. Their City Council recently opened a Conference Centre, for which Electrosonic provided the lighting control in association with Messenhalle Electriske A/S and Nissen Lie Consult A/S. The job was exceptional in having no less than 15 moving partitions, so the control of lighting in any area depended on the partition disposition. A special mimic panel allows the conference manager to set up the appropriate control scheme.

Dolphin Leisure Centre at Romford, Essex, England; features an artificial beach with wave making machine, conference and theatre facilities. Electrosonic supplied stage lighting control equipment ("Flatapak" and "Linkit" range) and luminaires. Also ES6090 system for "Houselights." Consultants were Troup Bywater and Anders. Contractors were Crown House Engineering and Thomas Bates and Sons.

Dalkeith Miners Club in Scotland have recently been equipped with a new entertainment sound and lighting system by Avtech Services Ltd (an Electrosonic dealer). Electrosonic supplied the complete sound reinforcement and entertainment sound system; and, or course, the stage lighting, including luminaires, pre-wired suspension barrels, multichannel dimmer system etc. Also included were "disco" type effects including mirror ball, pinspots, and effects projectors. Consultant for the client was A D Tate.

Light Limited are leading architectural lighting designers; undertaking work on a worldwide basis. A recent interesting project of theirs was the lighting design for International House at St. Katherine's Dock. This called for multi-scene lighting control of the large reception area and for dimmer controlled exterior floodlighting.

Electrosonic supplied ES6090 series dimmers complete with the necessary control system. This included a remote scene select panel operating a 12 scene preset system that also switched non dimmed circuits; and a time clock system for the floodlights.

The "House of Light" is a feature of the largest show house complex in Europe at Langshott, Horley, England. Wates Built Homes Ltd. wanted a system that would show prospective buyers the appearance of the house interior at different times of day. We supplied a control system which using dimmers, programmed switches and motorised blinds could set up the "scene" for day or night, winter and summer. "Scenes" are selected by a push button panel at the front door.

400 DIMMERS IN 100 RACKS IN BAGHDAD

We have recently delivered a complete lighting control system for a new hospital complex in Baghdad known as "Medical City." The complex consists of an 18 floor Surgical Hospital, a 7 floor Nursing Home, and a 4 floor Childrens Hospital.

One of 84 special wall mounting racks supplied to Medical City Baghdad.

A problem with the circulation areas and corridors is that although required 24 hours a day it is not necessary to have full lighting for the whole of this period. Switching various combinations of the corridor light fittings can give the variations in lighting levels but presents several problems, i.e.

1. Additional wiring for several switch circuits.
2. Patchy uneven lighting effect in corridors.
3. Operation by individuals means lighting usually is left full on for all 24 hour period.
4. If switching were operated correctly, there will be a difficulty in easily bringing corridor lighting to full in emergency situations.

To overcome these problems the Consultants specified a dimmer control system for all corridor lighting in the three buildings of the complex. Each set of corridor fluorescent lights were connected to one Master Automatic Preset Dimmer and the relevant number of Manual Slave dimmers. To make the system fully automatic a Clock Module was also included in the dimmer rack.

The racks also contained an incoming Mains Isolator and MCB's for sub-circuit protection.

As the racks were to be mounted at each electrical service point and were required to be a dimmer / distribution rack a slightly larger version of the ES6090 series six way wall frame was designed. This enabled the racks to be full front access and wall mounting.

The clock module — also a plug-in unit — enabled the lighting levels to be selected from the 4 level automatic master dimmer giving the following levels:—

1. Level Full — 100% - 7am - 7pm
2. Level Intermediate — 50% - 7pm - 12 midnight
3. Level Low — 10% - 12 - 7am.

A slow fade rate is set to give a smooth unobtrusive change in level.

For emergency an override panel is situated at each nursing station.

A total of 100 dimmer / distribution racks were supplied for the corridor dimming. 84 of these being the type illustrated and 16 larger floor standing racks.

Two additional racks were supplied for lighting control in two lecture theatres.

The engineering consultant for this project was PBI Consultants, London.

ELECTROSONIC WORLD

PROJECT NEWS

The Systems Engineering Division of Electrosonic carries out all our "project" work, including lighting control systems, presentation room systems and large audio visual installations. This page reports on some of the "auditorium" work we are doing with a special emphasis on sound.

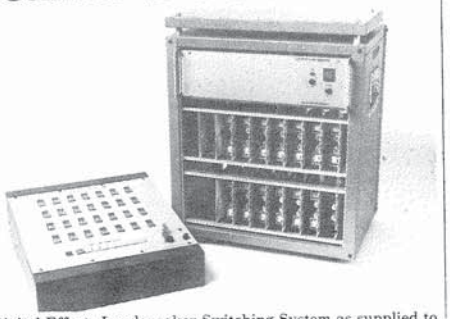
Sounds good in Wales and Scotland

The Electrosonic Systems Engineering Division have supplied and installed the sound system and microphone management system for the new Concert Hall for Wales, in Cardiff.

In this case we were working to the specifications of Carr and Angier, Theatre Consultants, which were not only designed to meet the technical and creative needs of the Concert Hall, but also its varied uses.

St. David's Hall, as it is known, is an impressive building with every modern facility and a seating capacity of 2,400, allowing it to be used not only for orchestral concerts, operas and dance, but also wrestling, snooker, theatre and conferences. The sound system had to be designed to meet all these different needs.

Custom built speaker cabinets are mounted on a lighting space frame suspended at a height of 13 metres above the stage. In addition to these, loudspeakers are mounted in the ceiling above the rear tier seats. The distance between the rear loudspeakers and those on the lighting space frame requires the use of a digital delay system.



Digital Effects Loudspeaker Switching System as supplied to Cardiff.

Custom built loudspeakers were also used for "fill in"; to cover those parts of the theatre the main system could not reach. The fill in loudspeakers were fed from separate amplifiers with delay line outputs.

Amplifiers for the array of horns and bass cabinets are mounted in two racks installed in the grid above the stage. 1400 watts are used to cover the whole Auditorium, along with an impressive array of graphic equalisers and electronic crossovers. The sound control room posed a special problem, due to its size. However, a custom-built mixer with 24 input channels, eight sub groups, two main groups, foldback and echo facilities, was installed.

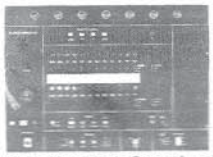
One special feature is the effects loudspeaker system. All the portable effects loudspeakers have built in amplifiers and signal routing is done at line level. Switching is "solid state" and the operator's panel allows the assignment of eight sources to any combination of 24 loudspeakers. The source at present assigned to any loudspeaker is displayed by a numeric l.e.d. indicator.

The system also includes a conference microphone management system. This includes 24 channels of automatic mixing and a microprocessor control system based on Electrosonic's Logic Card 2". (See page 11).

A Theatre Loudspeaker System under test at the Factory.

Aberdeen

His Majesty's Theatre, Aberdeen, Scotland, was re-opened in September 1982 by HRH Prince Charles. The City had given it a "facelift" and in this case the Theatre Consultants were John Wyckeham Associates. Electrosonic were awarded the contract to supply both the sound and the stage management communications system.



Stage Manager's Control and Communications Desk.

The stage manager's desk stands over 6ft. high and is a stylish mobile unit in black steel. It includes such facilities as 14 two colour cue lights, ring intercom to 18 outstations, selective paging, internal telephone and TV monitor.

The communications system supplied by Electrosonic included a two camera six monitor closed circuit TV systems; and the 25 extension internal telephone system.

The sound system presented an interesting problem. For architectural reasons the main loudspeakers were required to fit into two small boxes on either side of the proscenium arch. On looking into the problem further we found that no manufacturer of horn loudspeakers had a standard unit that would fit, so we designed them from first principles and built them in-house.

Project direction

Bob Stinton, Systems Engineering Director.

BOB Stinton joined us in 1978 and in 1981 was appointed Systems Engineering Director. As such he is responsible for the engineering and completion of all those jobs which cannot be satisfied by just supplying "boxed products". These can range from the need to supply a few engraved panels, or special cables, up to large turnkey systems of value $1 million or more.

Bob has a team of qualified engineers reporting to him, assisted by installation and drawing office staff. Because of the need for frequent travelling by both Bob and his staff; he requires a first rate deputy and this he has in the person of Bob Gorton.

Bob Stinton is also in charge of the development of special computer programmes; including ESCLAMP and its derivatives.

Complete system for Inforama

WE have received this report from Finn Kvalheim of Nissen Lie Consult, our Norwegian Distributors. We think that it gives a good idea of how we work on a "mixed" project.

The first purpose-built exhibition and conference centre in Norway, has been built on the outskirts of Oslo beside the airport road.

Electrosonic were invited by their Norwegian distributor, Nissen Lie Consult A/S to join them at a meeting with the client and their architect, F. S. Platon A/S, to advise them about low voltage systems for an enterprise such as Inforama. At the meeting, the whole concept of the conference area was discussed including the furnishings as well as the electronics; thus, both Electrosonic and the Architect were able to make a mental picture of not only what the centre was going to look like, but how it would operate. All concerned are convinced that the involvement of a potential specialist contractor at this early planning stage has enabled many of the usual problems of project management in low voltage systems to be obviated.

The architect, Mr Erik Collett of F. S. Platon and Mr. Finn Kvalheim of Nissen Lie Consult visited Electrosonic's factory at Woolwich after the initial systems brief, prepared by Steve Jones of Electrosonic, had received favourable reaction from the client. Their visit enabled the specialist engineers at Electrosonic to be called in to the meeting to give detailed advice on the various aspects of the equipment.

On the last day of the visit, the Norwegian visitors were taken to see some buildings where Electrosonic equipment and systems had been installed, such as International House at St Katherine's by the Tower, and the Council Chamber of the CBI at London's famous Centrepoint. They were also introduced to Ms Janet Turner of Concord Lighting who subsequently helped Erik Collett with the architectural lighting design.

Further meetings in London and Oslo also involved the electrical consultants, Bolkesjo A.S. in order to co-ordinate the electrical requirements of the system. In May 1982 Nissen Lie were awarded the contract to supply and install the Electrosonic system.

The Info-rama Conference Centre near Oslo.

Facilities

The facilities provided by Electrosonic in the main auditorium include:

- Front, rear and cyclorama motorised curtain tracks.
- 6.5m x 3m frame projection screen with motorised top and side masking
- 16mm and 35mm movie projection
- Single screen, random access and multi-image slide projection
- Lectern with full controls and built-in prompting system.
- Complete stage lighting system including all luminaires, 60 channel Multiway control system.
- High fidelity programme sound system, including 12 into four professional mixer.
- Speech reinforcement system including auditorium equalisation, digital delay and automatic microphone mixing.

For the Centre as a whole the following additional facilities are provided:

- Receptionists paging to public areas.
- Show relay to technical, backstage and group discussion rooms.
- Video and audio two way communication between selected areas.
- Technical ring intercom.

Architectural lighting

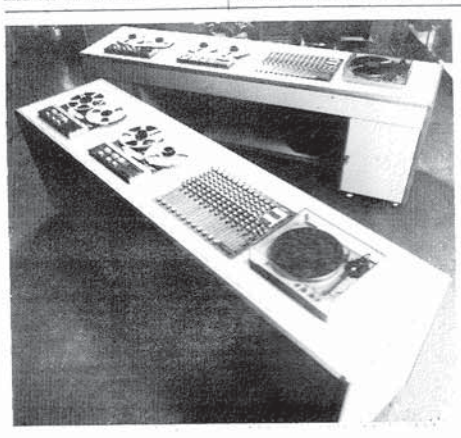
THE Architectural lighting scheme is of sufficient interest to be described in detail:

- The lighting in the auditorium is designed such that the various "moods" can be achieved for the various activities. This includes a low level direct light from downlighters enabling delegates to take notes during lectures even when projection is being used, a wall wash for a more inviting atmosphere during intervals and general circulation, and a series of pin spots for walkway lighting at the exit slipway. The lighting is controlled as a "scene set" such that the various types of light operate in tandem to achieve the mood. Slow automatic crossfading gives a smooth impressive effect to the change of lighting mood. However, because the "Stage Area" lighting can be controlled separately, and the "Stage" can be moved, the entire control system has an automatic switcher which assigns the lighting sub circuits to the "Stage" or "Auditorium" scene set. As with the speech reinforcement system, the allocation of the circuits is determined by the position of the master dais.
- The Grupperoms — or group discussion rooms — also have scene set lighting control between the fluorescent and the downlighter luminaires. Since they can be used as individual rooms or opened up by movable partitions, the lighting controls also link up in full logical order to cater for any permutation — a feature not seen before in Norway.
- The walkways are also served by lighting control so that when a grupperom or the auditorium is showing films or slides, the lighting in the walkway does not flood in, yet there is sufficient light to walk around with safety.
- The main foyer lighting was designed to complement the shape of the building and the structural elements such as the pillars and staircases, as well as provide a pleasant lighting mood as a circulation area. Again, the lighting control plays a fundamental role in achieving the necessary mood. A time clock activates scenes of control of the dimmer circuits so that the artificial light complements the daylight. In the morning and middle of the day the lights under the mezzanine and those furthest from the larger window area are at high intensity while the spherical lights following the ceiling line and the stairlights are left off or quite low. In the evening the stairlights etc increase and the spherical lights start to supplement the available natural light. In the night time, the spherical lights and stairlights are brought to full intensity whilst the lights under the mezzanine and those furthest from the window are reduced to match the general lighting level, and the pin spots highlighting the columns are brought up to full intensity to make their shapes a special feature. Whilst the daytime lighting will not compete with the daylight, the night time lighting will make the architectural features of the Inforama centre outstanding, especially when viewed from the highway between Oslo and the airport.

Theory into practice

It must be put on record that the helpful and thoroughly professional way in which the architect and electrical consultants to Inforama managed the project has enabled Electrosonic and Nissen Lie to provide their collective end client with a system to be proud of.

Whilst the outline plan, basic design and preliminary details of the "electronics" system prepared and negotiated by Steve Jones with the Norwegians provided much information for the other interdependent contractors, the detailed design, liaison and the project management was carried out by Andy Kidd of the Systems Engineering Division. The team work between Sales, System Engineering and Manufacturing is essential to transform the theory into practice, but the atmosphere of teamwork which the Norwegian people encouraged between all the people involved is the most important factor which enabled the project to run on schedule.



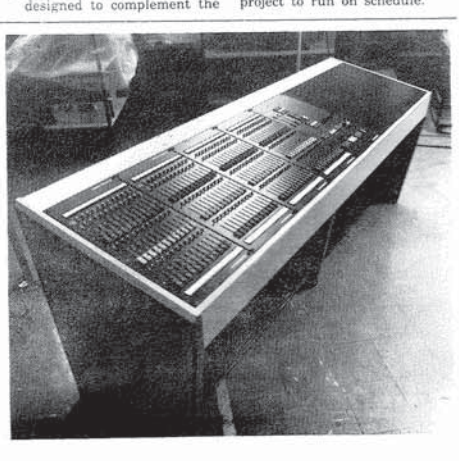
Consoles by the dozen!

THE photographs to the left and right show a small part of one of the largest Theatre system jobs we have completed recently.

The system was for a theatre complex in the Middle East, and involved the full equipping of three theatres with lighting and sound systems. No less than 19 specially designed consoles had to be constructed; in addition to racks holding 400 dimmers and a huge quantity of sound equipment.

We also supplied over 600 theatre luminaires not to mention what seemed like enough loudspeakers to run an open air rock concert!

The $700,000 contract called for a very short delivery time; and the bulk of the system was completed in six weeks. Bob Gorton was in charge of the project; which also involved us fielding four engineers on site to supervise final installation and to carry out commissioning.



Giant tower for S.E.L.

THE firm Mietzner and Mattis are dealers for Electrosonic GmbH in Munich. They specialise in major multivision installations like this one for S.E.L. at the Hannover Fair 1982. The entire tower is made of Marata Rear Screen Material. Twenty four image areas are covered by 48 projectors. In addition there is 72kw of primary colour lighting and 16 video monitors. The whole system, including lighting, is under "System 4000" control. AV production was by Gallo Audiovision, Achim Balon and laboratory work was by Photo Reger. At the same exhibition Mietzner and Mattis had a 36 projector show for MBB.

ES Dimmers control 1.5mw of sunlight

ELECTROSONIC in conjunction with Haden Young Limited have recently supplied a Government Testing Station at Chertsey with what is believed to be the largest single load dimmer control system in the UK.

The lighting load simulates Solar Radiation in two vehicle testing chambers and consists of special infra red source lighting panels. A total of 288 five kilowatt dimmer modules is split between the two chambers. This gives control of a total lighting load of 1.44 Mwatts. The 288 dimmer modules are housed in 16 dimmer racks which also include mains distribution equipment, and are finished in a special colour to match other equipment on site.

A computer interface has been supplied to allow control of the dimmers from a central computer which is used to control the environment within the testing chambers.

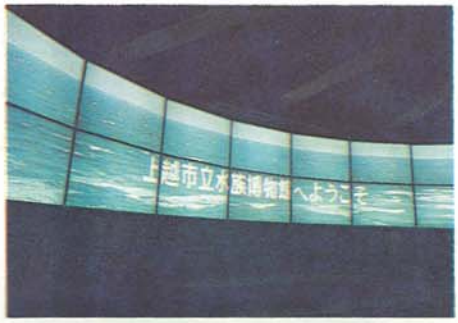
The electrical contractors on this project are Haden Young Limited and the end client is the DoE.

Trans Canada telephone

USING a unique audio visual application, Trans Canada Telephone successfully promotes its sales using an Electrosonic engineered "Slot Machine" to attract attention to its Trade Show Exhibit.

By simply pulling a handle, the visitor activates three projectors which flip through various slides and stop at random. Naturally, when the projectors stop displaying three of the same slides, the visitor wins the "jackpot."

Designed and engineered by Multivision Electrosonic Limited, this exhibit is easily transportable and is used in various trade shows across Canada.



Japan ocean show

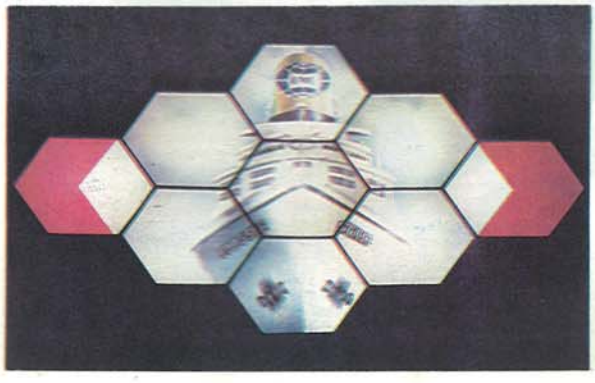
OUR Japanese distributors Nagase and Company have supplied equipment for many fixed installations. They are mostly for industrial customers. This one is an exception. A 28 projector multivision at an Ocean Park on the sea of Japan. The show is a mixture of entertainment and education.

Star Ship Electrosonic

EVERY year we take part in many exhibitions. NAVA, AMI and others in the USA. Many in conjunction with our distributors in Europe and the Far East: and of course the "AV" Exhibition in London, which for the past few years has been at the Wembley Conference Centre.

1982 saw the launching of "Starship Electrosonic". We took a suite rather than a stand and were thus able to create an interesting setting for our exhibits which featured the new ECLIPSE range and System 4000. A special theatre also ran "The Whale Dance."

The stand was designed and built for us by Tony Gidley Productions. A reduced version of the same stand was also used at Photokina 1982.



Metalcraft Hexagons

IT seems to us that the use of "conventional" audio visual — for example the use of single screen presentations, is more limited in Italy than it is in other European countries. However, "Multivision" is thriving and our Italian Associates Electrosonic SpA, are often involved with major productions sometimes on a "grand opera" scale! A recent example was the annual sales conference of Alfa Metalcraft Corporation. Here an audience of 1800 people assembled in the Sorrento Palace to see a nine screen multivision which was used both for speaker support and to run pre-recorded material.

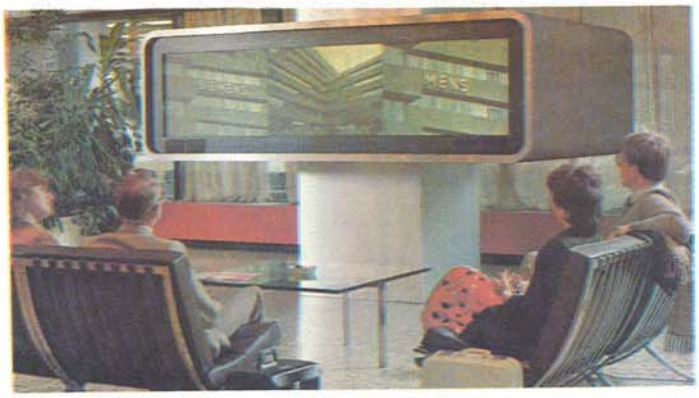
As can be seen the screens were hexagonal. The top picture shows the "set" during installation, the bottom picture shows one of the interesting geometrical effects obtained. Four projectors were used per screen and the show was run on "System 4000". Production was by Videoprogetti SRL of Rome, and the AV director was Umberto Santucci. Budget for the programme, equipment hire and staging was Italian Lire 85 million.

OSONIC RLD

Multiway sets the scene

ELECTROSONIC MULTIWAY Control Systems for Theatre lighting give the user great flexibility. They are modular in construction with a basic "3 preset 3 group" configuration, and with automatic dipless crossfade mastering. They are available for any multiple of 12 channels between 36 and 120 channels. The modules are engineered for quantity production and this contributes both to their good looks and excellent value for money.

MULTIWAY is usually used with ES6000 series 6 way 2kw dimmer units but can also be used with ES6090 plug-in series, in 2, 5, and 10 kw ratings.



Siemens 7000 Hours of Multivision

THIS elegant multivision display was installed by International Film Services (a dealer of Electrosonic Systems BV) in the Siemens Nederland head offices in the Hague. The five minute show has the theme "Siemens in our Society". It was installed in January 1979 and runs eight hours a day five days a week.

By February 1982 the 7 projector ES3003 autopresent system had clocked up 7,000 hours. The system is serviced once a month and the average tape life is 1200 hours. Only 80 lamps were used in the three year period.

Renault Style

THE 1981 Renault Dealer Convention launched the Renault 9. 21,000 people attended! With the theme "WIN" the show was given in many tented pavilions at Longchamp racecourse. Just this one used 80 projectors with a presentation on "Style".

ES3003 System supplied by our French Distributors, Technitone.

Dimmers and Art

MANY art galleries use Electrosonic Dimmers. Here at London's National Gallery an environmental control computer regulates all aspects of the valuable paintings' environment; including daylight control by blinds and fluorescent lighting control by dimmers. We supplied the dimmer system suitable for both manual control and connection to the computer under contract from the Museum and Galleries Group of the PSA.

The photograph is by permission of the National Gallery.

Sony on tour

OUR story on Page 15 describes a recent presentation tour by SONY. Two such tours have now used System 4000 for audio visual sequences and speaker support, both produced by Roundel Productions Ltd of St. Johns Wood, London.

Making an Exhibition

SCOTT Howard Systems Furniture are the UK agents for System Haller, a Swiss furnishing system that is well suited to accommodating AV equipment. At the London Interior Design Exhibition their entire stand was built with the system and included 8 projection screens. Projectors and programming equipment were on hire from Electrosonic.

The Big Sound from Woolwich

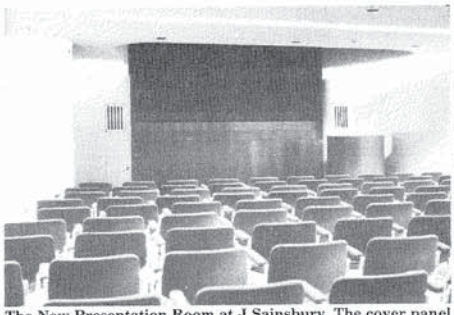
THE picture shows a complete theatre sound system under test at our Woolwich factory.

We design and build complete sound systems for Theatres, Auditoria and Conference Rooms; sometimes to a consultant's requirement, sometimes to our own original specification. Always the aim is to build the system in such a way that it can be tested in its entirety in the factory. (Notice here the big loudspeaker assembly). This approach minimises installation and commissioning time, and allows the customer or consultant to fully approve the system before delivery.

All such systems are supplied with full "as built" drawings and comprehensive instruction manuals.

THE PRESENTATION ROOM

J Sainsbury presents



The New Presentation Room at J Sainsbury. The cover panel for the rear projection screen is shown down.

MODERN retailing depends on maintaining high standards; and high standards mean motivation of staff and good communication between staff. J Sainsbury PLC are Great Britain's leading supermarket chain, and have a good claim to being one of the most efficient retailers in the world; they make considerable use of audio visual techniques.

Within their Blackfriars, London, headquarters a training room has now been converted for use both as a formal presentation room for audiences of up to 150; and as a training room for smaller groups. The room is provided with push button lighting control that sets the correct "scene" for different uses of the room; with low level sound reinforcement, and with a comprehensive slide projection system that can be used for complex "speaker support." The system can use from 1 to 9 projectors, either under manual or computer control.

Control of the room facilities can be from an operator's panel in the projection room; from the lectern; or from a hand held infra-red control. For formal presentations rear projection is used; and the screen is built in to a handsome wood panelled wall with a motorised panel to cover the screen when not in use. The matching lectern is the largest that Electrosonic has ever built!

When used as a training room the seating can be rearranged: and there are then facilities for overhead projection and video. It is in these circumstances that the wireless hand control of lighting etc. is most useful.

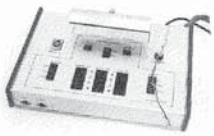
It is an interesting point that the need for a company to have good presentation facilities for both internal and external presentations should be seen by top management. The Sainsbury presentation room is an excellent example, since Sir John Sainsbury, The Chairman and Chief Executive, personally initiated the project. The complete audio, audio visual and lighting control system was supplied and installed by Electrosonic Ltd. Consultants were Hubert Wilkie and Co of New York in association with Theatre Developments Ltd.

ESRAX

A further point about this installation was that in the analysis of customer need it was agreed that rapid random access slide projection was not needed for presentations held in this room. However, such a system was seen to be of value in the Boardroom, where the Board need the facility to review both graphic and photographic material. This resulted in a second small installation using 4 ES3500 Random Access Projectors. The projectors, room lights and motorised curtains are controlled by a small table top plug-in control panel; and the projectors themselves are in a special housing in the next door dining room!

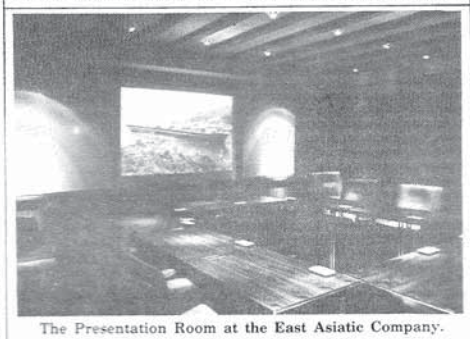
Pillsbury's new conference centre

THE Pillsbury Company has recently completed and moved into its new world headquarters in Minneapolis, Minnesota, USA. This new administrative facility comprises a 40 storey building located in the heart of the downtown area. Within the structure is an elegant conference centre that incorporates up to date presentation capabilities. It provides the setting for the most professional and diverse forms of business meetings. The multi-room conference centre has two main rooms — an auditorium style presentation room and a multi-purpose style room.



A typical simple control panel for a Presentation Room.

The rooms share a central audio visual facility that offers video and multi-image projection, full control of lighting, draperies, audio, intercoms and 16mm movie etc. Lecterns are installed in both rooms giving the speaker total control of the environment. The system consists of an Apple II+ based system with ES4103 units as the base for the main multi-image projection system. (An extra ES4103 with a Dedipro is used for live speaker support — this system was deliberately kept separate from the main multi-image system). The room controls (drapes, houselights, motorised screens, etc.) are available from either of two operator positions, and if appropriate, the controls on each lectern can be made 'live' so that the speaker can also control some or all of the room functions. This prevents the possibility of the presenter at the lectern having access to functions in the room that were not a part of the presentation. All room functions can also be programmed to be run from the computer. The system was designed and installed by Electrosonic Systems Inc.



The Presentation Room at the East Asiatic Company.

East Asiatic presentations

YOU would expect the East Asiatic Company to be somewhere in the China Sea — but in fact it is a major shipping company from Copenhagen.

Lys and Lyd our Danish distributors have installed a neat autopresent system that runs a visitors show on demand. It is installed in the East Asiatic Company's meeting/presentation room. It uses four projectors on a single screen (ES3003 system).

Screen curtains and room lighting are also under programmed control.

Euroc's "Monastery" has a House Show

Euroc Industries of Sweden are an industrial and trading group with 10,700 employees. Their original products were cement and plaster board, but now they cover a huge field embracing such things as vibration technology and energy conservation.

This diverse group has a compact and beautiful headquarters building set in parkland near Malmo. It is in fact modelled on a monastery in the South of France; but is made entirely of concrete and was designed by Professor Sten Samuelson. If Electrosonic World were an architectural paper we could devote a whole issue to the building!

Such a building needs, and has, an excellently appointed Presentation Room/Lecture Theatre. The company needs, and has, a distinguished "House Show" (9 projectors, 3003 Autopresent) that is run for visitors in this room. Installation was by Ljusteknik AB of Stockholm.

ES BV help promote VIDITEL

ELECTROSONIC Systems BV have recently helped the Netherlands PTT in a project to promote VIDITEL — the Dutch videotex system. It is again encouraging for us to find such a customer believing in the value of presentation rooms as a means of properly presenting a concept.

So far three such rooms have been installed — in Haarlem, Rotterdam and Groningen. Each is equipped with a Umatic video recorder, movie projector, slide dissolve pair, 2 monitors, lighting control and of course the Viditel system itself.

INTEGRATION

The problem here was to integrate all the equipment into a single easily manageable system; in particular to ensure a smooth transmission from one AV medium to another and especially between the Viditel source and video recorder. Thus while much of the equipment was standard; it was necessary for Electrosonic Systems BV to project engineer the system, and in particular to custom build the control panels and the video switching equipment.

Multivision sells space

TO HELP sell the space in the Minneapolis City Centre building (44 storeys of retail and commercial space), Oxford Development, a Canadian based organisation, had the assistance of Associated Images (a local producer) and Electrosonic Systems Inc. What resulted was a three screen, ten projector show (ES3003 System) shown in a very plush and specially designed conference room.

Two shows were developed and aimed at prospective lessees. One was for commercial space and the other for retail. They displayed the building's appearance, traffic patterns, management etc. The shows were completely automated, including room lighting. There was no "sitting in the dark" for the viewers — the lights faded and the screen dropped simultaneously and the show began.

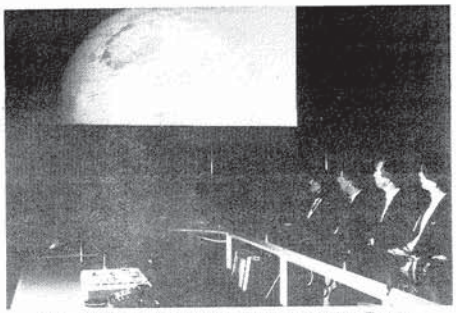
This presentation has been running for one and a half years (20 times per week at peak periods). The success of the show and its sales force can be shown by the 75% committed occupancy when the building completion was at 90%. Once the projected occupancy of the City Centre is achieved, the show will be moved to another location.

Applecue for prompting

THE idea of using a scrolling prompting system, as used on television, for conferences and conference rooms is catching on fast. For major conferences it makes sense to hire the service from a specialist company; but for "in house" use a much lower cost solution is available.

We offer "APPLECUE"; a prompting system based on a standard APPLE Computer with remote controls that allow either self operation or separate operator. All text loading and editing is done using the standard APPLEWRITER program; but our additional program does the large character scrolling.

Displays are supplied to meet customers needs; but usually consist of a reverse scan monitor and viewing glass, built in to a suitable lectern. When used "in house" such a system is ideal for storing "speakers notes" as opposed to a full text of a speech.



One of the Netherlands PTT Presentation Rooms.

Selling ships

AUDIO Visual is an International business. We are often involved with the supply of equipment from one country to another, using the design and software services of yet a third. The need for AV also transcends political and economic systems and a good example of this is the new presentation room at Sudo Import in Moscow.

In the USSR all Import and Export transactions are handled by a single company in respect of a specified product area. Thus Sudo Import are responsible for both the import and export of ships of all kinds; as well as for services such as ship repairing.

Made in . . .

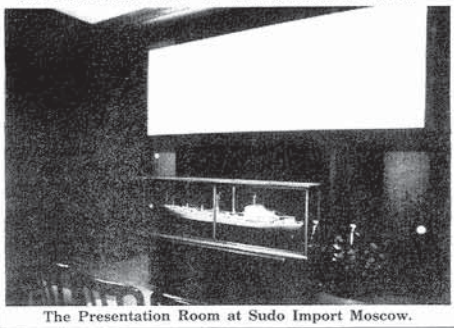
Their need for a Presentation Room is just as great as if they were a "western" organisation. They must still sell to foreign buyers; they must be able to explain how their organisation operates and how a prospective buyer or seller — whether state owned or private — deals with Sudo Import.

The Presentation Room at Sudo Import has been designed and built by Czechoslovakian architects and suppliers. The room is flexible and can be used for lectures and AV shows of all kinds. A main feature is a 12 projector prestige multivision show produced by CTK — Made in . . . Publicity of Prague.

Models

We have worked with "Made In . . ." for many years, and we were pleased to be able to cooperate with them on this project. In principle we supplied a complete two program 12 projector ES3003 based multivision system to "Made In . . ." in Prague. The system also included an ES8 decoder to operate houselights, the lighting on various model ships and automatic curtains.

The technical department of "Made In . . ." added the Czech amplifiers and loudspeakers and the Hungarian FITE 16SX 16mm projector. They also undertook the complete technical installation in Moscow.



The Presentation Room at Sudo Import Moscow.

Scania on the move

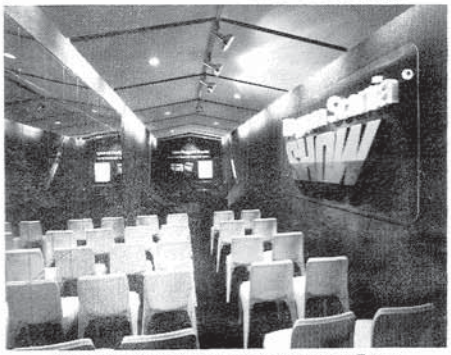
PRESENTATION Rooms are usually a feature of a fixed location. Visitors to the location benefit from the controlled environment of the room and the visit is of value to both the presenter and "presentee" because of its formality.

Some people who would like to use a presentation room for sales purposes cannot — because in practice they can't get their customers to come and see them. In selling heavy trucks in Australia Saab Scania got over the problem by taking the Presentation Room to the audience!

No springs

The "Program Scania Show" is given in a 20 seat theatrette built into a semi-trailer; which in turn is towed by one of Scania's most formidable "rigs." The whole "circus" has crisscrossed Australia many times — visiting any place where a potential Scania customer might be found.

Kaleidoscope Pty Ltd of Melbourne produced the 6 projector show that is permanently installed in the theatrette. Graham London, their director, reports that the equipment has worked well. The only problem has been to persuade the drivers of the need to align projectors before the show. These are over the back wheels — and since the container is virtually empty the equipment is bounced around as if there were no springs!



Scania's Mobile Australian Presentation Room.

Presentation room design

THE idea that companies and organisations should have a "Presentation Room" has evolved over the last 15 years or so. In earlier times major organisations might have a lecture theatre, that was used almost as a classroom. If someone wanted to show a slide at a meeting in the boardroom, equipment would be brought in and usually get in everyone's way.

The need for a room that could be used for meetings and for group communication. The need for a room that satisfactorily accommodates modern a.v. methods. The need for a room that satisfies the needs of even quite small organisations. This is what has forced the introduction of the Presentation Room. We at Electrosonic are uniquely qualified to equip such rooms; but we can also help the customer achieve an economical design.

The usual problem we find is that few customers know at the outset what they *really* want. Some bring along a shopping list — usually of very expensive and sometimes unnecessary equipment. Some confuse the needs of *showing* audio visual with that of creating it. It is just as unsatisfactory to *over*equip a presentation room as it is to underequip it.

So what qualifications do we have to advise? Well, first of all we are users of a presentation room ourselves. We frequently need to present to architects, consulting engineers, property owners and commercial customers. These people do not necessarily want to be involved in details about our products (we have a separate showroom-demonstration room if they do). They do want to learn about us as an organisation; and they may want a review of different ways of solving their problem.

We therefore find such a room extremely useful. However, because we are in the business of selling presentation room systems, we also have the ideal opportunity both to demonstrate and to try for ourselves all the different possibilities.

A most important feature of our presentation room is that when you go in you are not aware of any equipment. No blank monitors, no blank screens. If we are selling the room we can do one of two things. Either just demonstrate the facilities we believe are appropriate to the customer, or demonstrate all the technical features of the room and review with the customer the relevance of each to his requirement.

For example, we naturally have a good "House Show" using multi-image technique with nine projectors. A smaller customer might be very happy with a two projector house show — or we may determine he has no need of a house show system in the particular room. (For example, in the Sainsbury case cited opposite, the need for a house show was immediately dismissed, as the room was never intended for visitors).

The Electrosonic Presentation Room at Woolwich.

Fundamentally

The most important points to cover are the fundamentals. We never cease to be surprised at proposals to use rooms glazed on all sides as presentation rooms! Good blackout is, of course, essential. Then we like to see that lighting control, low level speech reinforcement and the appropriate seating arrangement are properly covered.

Unless the customer has a need for theatrical lighting (some do — for example fashion products), we try and keep the concept of lighting control as simple as possible. Instead of separate controls for each dimmer we provide one button for each "scene" — i.e. each *use* of the room.

We next consider the lectern. Our own lectern is far more complex than we would usually recommend. Unless a presenter is going to frequently use the lectern and can therefore become completely familiar with it, it is best to keep the lectern controls to a minimum and have a separate technical control panel.

Only then do we consider projection and A.V. equipment. Wherever possible we try and ensure that the impact on the room is minimised. In our own room an electronically controlled curtain and masking system ensures that only that part of the screen needed is revealed at any time. Even the video monitor is on a travelling track, so it is out of sight when not wanted and in the best viewing position when required.

Our own room includes a whole host of facilities, all of which we are able to use ourselves. A choice of two multivision programmes (one the house show, the other an entertainment), single screen slide show, comprehensive "lecture" slide system including a resident slide library with computerised index, movie, random access video from video cassette, infra red control of main room functions (useful for informal round table meetings), and more.

We can even computer sequence everything in the room — not to mention provide the presenter his script on a computer controlled "electronic prompter." The point is that everything has a valid use and everything can be used independently or in combination. When working with customers we can use our own *user* experience to help decide on what is needed and what represents the most practical layout.

Our own lectern is more complex than we would recommend for most customers. Note computer slide index.

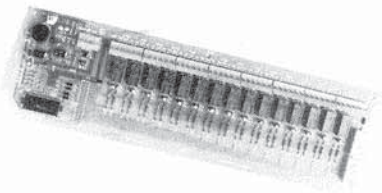
Infra red magic

OUR Project Engineering Division makes several special purpose products that do not feature on our regular price lists; since they have to be custom built or modified to meet the individual need. One such is "Logic Card" described below; another is an infra-red remote control for use in presentation rooms. This controls lighting, projection, curtains, etc. — indeed anything that can be remotely controlled.

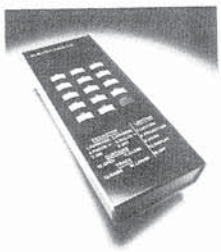
Customers who have cordless controls for their TV sets at home first of all want the same facility in their presentation room, and secondly assume it is very easy to achieve. The second is only not true to the extent that the presentation room is much bigger than a living room, and that the control of a multiplicity of equipment is technically more demanding than controlling one item only.

We have now equipped many presentation rooms with this feature; and to do so we have developed a family of special components. These include an elegant hand held or table standing transmitter, that can easily be custom labelled; receiver/preamplifier units for wall and ceiling mounting; and a rack mounting decoder unit with heavy duty isolation relays.

These together allow for fully engineered systems to be built for any reasonable size room. The decoder can operate devices directly or work in association with "Logic Card" in more sophisticated systems.



The Infra Red Receiver System. This will usually be rack-mounted.



Infra red hand control for use in a presentation room.

Logic card speeds project engineering

Here Mike Ray reports on a development that is of great use in completing "special" control systems.

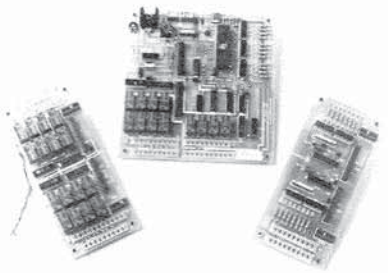
ONE of the problems faced by engineers providing tailor-made systems for customers projects is the shortage of time.

By the time the specification has been agreed and the order is actually placed, there is not enough time to design, build and test the system. Today's competitive world has drastically shortened the time scales, and the systems demanded are ever more complex.

The development of Logic Card has proved a great help with this project problem. Logic Card is a small printed circuit fitted with a row of optically-coupled isolators for inputs at 24V DC, and a row of relays rated at 100 mA for outputs. The relays are immune from static electricity or noise problems and can give isolated dry-loop switching.

In between the input and output devices, lies a one-chip processor, the Intel 8748. This can be programmed to provide any rules relating output to input, and this in turn makes the Logic Card into whatever it is the customer wants.

Not only is it useful that the same hardware can become different things for different needs, but the idea also speeds development and even manufacture. Instead of a large amount of dedicated wiring all you get is a standard Logic Card and the only tailor-made wiring is in connecting it to the sockets at the back panel of the unit.



The "Logic Card" family of circuit boards.

Maintenance is vastly simplified, for the Logic Card hardware is always standard — no modifications are permitted, or indeed needed. The whole board uses plug-in connectors and plug-in relays, so it can be serviced or just replaced. Previously special control units used to be one-off, so replacement was out of the question.

The original Logic Card I proved surprisingly versatile and has been extensively used in multiscene lighting control and presentation room applications.

Logic Card II

After some 40 installations using Logic Card I, Electrosonic has moved on to Logic Card II. The concept is the same, of uncommitted inputs and outputs of a very rugged nature, but the design has improved and the board has been made smaller and neater.

Logic Card II is extendable, there are input and output add-on cards which connect on a daisy-chain cable to permit a very large number of input and output channels. This opens the way for one of its first applications, which is a 24-way microphone management system. This scheme has 24 delegate microphone demand buttons, 24 chairman's control buttons-and-lights, and controls a 24-channel automatic microphone mixer. The programme features 24 independent delegate timing circuits, and flashes any channel about to be timed-out to warn of the impending cut off.

All this requires only one Logic Card II and two add-on input and output boards! It would previously have needed a purpose-built 50 relay control unit.

The most exciting feature of the new Logic Card is the availability of an add-on serial input/output card. This enables the system to communicate with a computer or with another logic card.

An interesting feature of the system is the means by which we "programme" the microprocessor. If we were to do this directly, the detection of programme errors would be time consuming; and furthermore we might not end up with what the customer wanted. So we do a "simulation" first on a more powerful computer.

Proving the programme

Each new project is first simulated by a programme in an Apple computer. The simulation is written in BASIC which is quick to use, but the planning and flowcharting is done with the eventual machine code implementation in mind.

Inputs are imitated by pressing chosen keyboard keys, and outputs are shown on the screen. The Apple trial programme is always furnished with a full written specification giving exact details of the function of each input and the resulting output. The Apple simulation is tried out by the Project Engineer and, if possible, with the customer or his consultant.

It nearly always results in a revision of the specification! What an improvement to spot the problem at that stage — the snag used not to turn up until the unit had been built and was being tested!

When the revised simulation and revised written specification has been agreed it only takes a day or two to programme the 8748 processor, since the flowcharts have already been proved to be correct, and the whole working of the programme is already understood.

The programme is then "burned" in EPROM and plugged into the socket of the Logic Card. Even here time is saved for the logic card will already have been tested after manufacture, and a standard test EPROM allows even the purpose-wired box and connectors to be tested out before the actual programme is ready.

The customer gets exactly the facilities he wants, the price is keen and the delivery highly competitive — and service is by simple replacem en t It's a dream come true.

Tales of a Finnish car plant

We have received the following report from Risto Marttila of AV Tekniikka, our Finnish distributors.

THERE can't be many people outside the country who know that Finland manufactures cars. In fact, Saab cars have been made in Finland since 1969, and the production of Talbots was begun in 1979. Today output of motor vehicles has reached 23,000 a year.

Oy Saab-Valmet Ab has Finland's only car plant, and it's a popular place with visitors. The number of people touring the works has grown from a thousand in 1970 to over twenty thousand a year now.

Electrosonic have been part of the Finnish car scene since 1974 when Saab-Valmet works installed the first 3-screen multivision equipment based on ES6 dissolve units.

The programme told of the plant's early years, quality control and, in particular, the special requirements of cars operating in rigorous Finnish conditions. The programme was revised from year to year to keep pace with the development of Finnish vehicles.

When the projection equipment was renewed after six years of excellent service, Electrosonic's ES3003, based on microprocessor technology, was chosen. At the present moment, the multivision system comprises 13 ES3003 microprocessor-controlled projectors and a control rack including two ES1311 tape decks allowing a choice of two programmes.

The equipment is installed in a back-projection room, the small dimensions of which caused some problems. The elimination of distortion was difficult because of the closeness of the screen; but, using special mirror objective lenses, a crisp image was achieved.

The projectors are set up in the configuration of 3 + 2 overlapping, with three projectors for each of the three adjacent screens, and two projectors aimed between each screen. From an optical point of view, the set-up was difficult but the result, however, has been surprisingly good.

At the moment Saab-Valmet has two programmes. One tells about the start-up of the car plant and its significance for Finland, as well as the corporate philosophy. The other programme is updated each year. It explains the characteristics of the vehicles produced, and these too change every year. This second programme is designed to be straight forward so that production costs don't get out of hand.

The Saab-Valmet car plant uses Multivision for visitors.

Although only two years amortisation have been allowed for the equipment, and despite annual renewal of programmes, costs per visitor have been under £1 ($1.80). The real price is hard to estimate; perhaps about 60p ($1) per person. There's no doubt about the effectiveness and efficiency of multivision at Finland's Saab-Valmet car plant.

ELECTROSONIC WORLD

PUBLIC ENTERTAINMENT

The use of the Multi-Image and related sound and light medium for Public Entertainment is increasing. Shows vary from the very big to the very small. Financial success depends on matching the show to the real visitor traffic. Here are some stories from famous or even infamous places.

The Rich and Roistering days of Deadwood

TOO many people through watching too many bad westerns believe that the United States wild west history occurred from Texas to California. In truth most of the wild west experiences, some legendary and some factual, occurred in the Midwest and one of the hot beds of the gold rush and the general lawlessness was Deadwood, South Dakota. It is only fitting that there should now be an "experience" type show in Deadwood.

"The Rich and Roistering Days of Deadwood" plays in a faithfully converted theatre where an audience of 150 sits on period wood theatre seats to watch this 30 minute, 15 projector show. It was one of the first installations using the Sonic programmed on an Apple computer and opened on 30 May, 1981. The equipment has performed flawlessly since its installation, giving 20 shows a day 7 days a week. The theatre enjoys a prime location between two of Deadwood's most noted attractions — the tavern where Wild Bill Hickock was shot and the infamous brothel, The Purple Door, now unfortunately closed down.

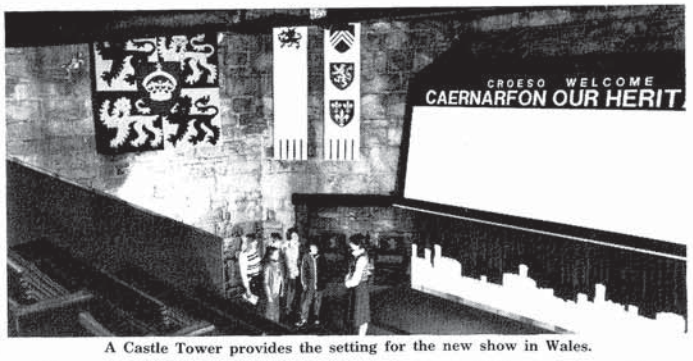
"Deadwood" is a good example of local initiative in both seeing the potential for such a show and producing the show using local resources. The producer Milt Lee and writer Shebby Lee (Milt's wife and business partner in AVRAM Productions) saw the show as entertainment, not as travelogue. Thus while great attention was paid to historical accuracy; the choice of actors, the specially scored music by Brian Belet and the images themselves are intended to entertain the audience and involve them in the period 1875-1879.

Clearly one of the major problems of productions of this kind is the lack of genuine source material. In fact there were 350 primary photographs of Deadwood Gulch available that matched the required period.

It was Terry Gallantine's job as graphics artist to design 1200 slides from this source material augmented by some original graphics created by Terry Gallantine himself. This involved a lot of rostrum camerawork and hand colouring of copied photographs.

The budget for the show and theatre restoration was $180,000.

Deadwood's bustling Main Street, circa 1876.



A Castle Tower provides the setting for the new show in Wales.

Caernarfon — Our Heritage

A good example of co-operation between public and private enterprise is the audio visual presentation "Caernarfon — Our Heritage;" now running at Caernarfon Castle. It is also a good example of a case where the scale of the show and overall investment has been correctly matched to the known visitor flow of an existing tourist attraction.

Caernarfon Castle attracts about 300,000 visitors a year, and it is realistic to think that a percentage of these would be willing to pay just 50p ($1) extra to see an entertaining and interesting show. This has indeed proved to be the case and a thorough audience research program has revealed that the audience appreciate the show. Asked for written comments they say "Inspiring" (Thomas Sneed, USA); "Great" (party of 54 from Cullerton Ca.); "Very Interesting" (Yosniya Nakamura, Japan); "Beaut" (cannot read writing but must be Australia); "Worth seeing more than once" (M Rees Jones of Caernarfon).

Joint project

The presentation is a joint project of the Welsh Office Ancient Monument Branch and Chris Abram Public Relations. The former provided the site and support; the latter produced the show and designed the theatre. Proceeds are split between the two. The overall investment is seen as long term and the entry fee is very reasonable as a result of this approach.

The show is given in the "Eagle Tower" of Caernarfon Castle. (Audio Visual professionals will, of course, want to know that the show was programmed on an APPLE II computer). This has been converted into a 75 seat theatre with "seats supported by Welsh steel and upholstered in Welsh wool." Shows are given every 30 minutes; usually in English; but, by arrangement, parties can see the show in Welsh, French or German.

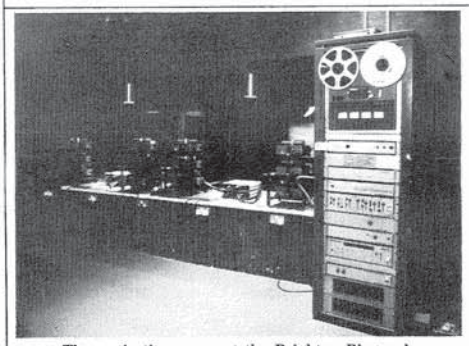
HRH

The show producer, Chris Abram, already has two tourist AV shows to his credit, one in Cardiff and one in Margam. He was therefore well qualified to tackle "Caernarfon" and has harnessed impressive resources. Buckingham Palace gave permission to reproduce the Prince of Wales Banner which hangs next to the screen; and also to photograph the 1911 and 1969 Investiture regalia.

The show is written and narrated by Wynford Vaughan Thomas, with a contribution from HRH Prince Charles. Wynford Vaughan Thomas is the doyen of Welsh broadcasting and has a gift for bringing the past alive and communicating his love of Wales. The show also includes much original photography including specially commissioned spectacular aerial photography of the Castle and Snowdonia.

System

The show system is an Electrosonic "Autopresent" system using an 8 track tape deck with auto-rewind; 11 slide projectors under ES4003 Eurosonic control; one 16mm movie projector and several switched or dimmed lighting circuits for special effects. The total budget for the Theatre conversion, the show and the technical equipment was £85,000.



The projection room at the Brighton Biograph.

AV by the sea

THE Brighton Aquarium has long been a popular place for visitors; and over a number of years the Aquarium Company has extended its activities as more space has become available along the sea front.

A whole "complex" of leisure activities is now in place based on the aquarium, a dolphin show, restaurants, bars and a new exhibition entertainment called the "Brightonarium." The Brightonarium is a delightful exhibition evoking the earlier days of Brighton as a seaside resort, and including such exotica as Martha Gunn's bathing machine.

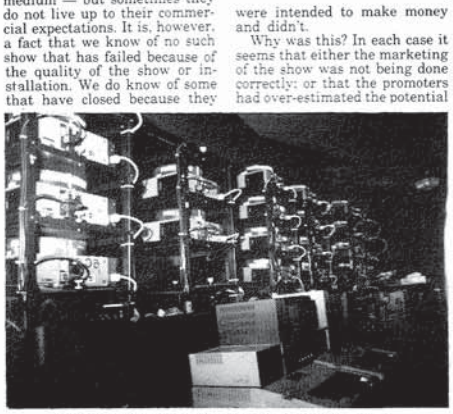
Within it is the "Brighton Biograph." Every thirty minutes this runs a 12 projector entertainment show "What Mr. Butler Saw." The complete showing system; including the projectors under "System 4000" control, 16mm movie, three channel sound with enhanced bass; runs on an "autopresent" basis and was designed and installed by Electrosonic.

The show was made by Tony Gidley Productions of London. Michael Carreras was Executive Producer on behalf of the client. The show describes how Brighton became so popular and points out some of the unusual things that can be enjoyed today. A loudspeaker at the back of the auditorium carries the voice of "Mr Butler," supposedly one of the audience asking questions and making comments.

What happened to Holland Happening, and why did Paris stop?

PUBLIC entertainment multi-image shows seem to be the most glamorous applications of the medium — but sometimes they do not live up to their commercial expectations. It is, however, a fact that we know of no such show that has failed because of the quality of the show or installation. We do know of some that have closed because they were intended to make money and didn't.

Why was this? In each case it seems that either the marketing of the show was not being done correctly; or that the promoters had over-estimated the potential audience. It is in fact very difficult to attract an audience to a completely new attraction of this kind and ironically a City Centre site is no guarantee of success.



The programming set-up for Paris Non Stop.

Smaller Shows

The problem with the City Centre show is that it is but one of many attractions. To succeed it must be part of a visitor's programme and this means that it must be effectively "pre-sold." Since direct advertising is inappropriate or too expensive, other methods must be used.

It is interesting that where smaller scale shows are mounted in an existing site, drawing on a known number of visitors and generally extending the visitors' choice of activities, they are nearly always a success — the other stories on this page are all good examples.

To assist potential sponsors of audio visual shows that are intended to run at a profit we have prepared an internal document "The Market for Public Entertainment AV Shows."

This document is not available for general circulation; but is available to prospective clients on a case by case basis. This is because we try and present only those considerations relevant to a particular user. AV shows can make money and we are happy to offer our help to ensure that they do!

Paris

It was sad for us that "Paris Non Stop" — a 48 projector plus 70mm spectacular that opened early 1981 on the Champs Elysées; did not succeed but really the marketing was non existent. Technically it ran well and it was nice for us to have such a large show running continuously on the then new System 4000. France, however, is still a highly active AV country and we have no doubt that other more commercially successful shows will soon be seen.

Amsterdam

Our last issue featured "Holland Happening"; a major show in the centre of Amsterdam. Here again an almost total lack of marketing caused miniscule audiences. However, this story has a happier ending. "Holland Happening" has now moved to FLEVOHOF, an entertainment park with a difference in the middle of Holland.

Flevohof is devoted to agriculture and all its displays, exhibits and "rides" are on various agricultural themes. It is also a fully working farm. So the flowers you see in the greenhouses; the cheeses made in the dairy; and the mushrooms grown in the compost are all being grown commercially.

Flevohof is an enjoyable day out for the family. In ten years it has become a major attraction to Dutch and German families and several hundreds of thousands visit it each year. "Holland Happening" has an assured audience and it is in a most appropriate environment.

LONDON EXPERIENCED AGAIN

THE "London Experience" was technically one of the finest installations we have done. This 42 projector + 35mm movie show with a studio quality sound system and a wide range of special effects gave 15,000 performances in the period 1977-1980.

It was building up a good audience and was only closed because it formed part of the Trocadero Development; and its space was needed for rebuilding. The developers Richard Ellis, for and with Electricity Supply Nominees, inform us that the redevelopment is going according to plan. They also confirm that "The London Experience" will be one of several public entertainments in the new building.

We look forward to seeing the show back in business!

MUSEUMS EXHIBITIONS

THE stories on this page each describe one aspect of the use of AV related techniques in Museums and Exhibitions. While we are proud of the big show like Technorama, we do remember that most of our work in this field is in small scale displays; we try and bring our "systems" approach to bear on all applications, big and small.

Computer for choosing and showing tourist slides.

See India with Esrax and Apple

1982 meant the Festival of India in Britain. This joint venture between the Indian and British Governments involved Indian art, drama, culture and products being on display throughout Great Britain for six months.

As part of the "Festival of India" celebrations, Air India and the Indian Tourism Development Corporation teamed up to sponsor a "See India" exhibition that opened at Selfridges in London and then toured eight major cities. The exhibition included an audio visual application of a kind that we expect to be involved with frequently in the future.

Data base

One part of the exhibition was devoted to tourist possibilities. The idea was that visitors could get specific details about a given city or area — including details of cultural attractions, hotels, tours, shops, etc; by consulting a computer. Further that visitors could then see on slides the place(s) they had selected and could receive a "hard copy" print out of the text information.

For the visual part we supplied an ESRAX random access projector in an ES610 cabinet. Apple Computer Company kindly loaned the Exhibition a complete APPLE II system, which was used to run a Data Base program. Edward Payne of Electrosonic helped the Indian clients "load up" all the text information and instructed them in the use of the complete system.

Lindbergh

ON 21 MAY 1927 when Charles A Lindbergh, a 25 year old airmail pilot from Little Falls, Minnesota, landed the "Spirit of St. Louis" in Paris after a solo flight across the Atlantic, he found himself a world hero. Probably no other single event in the twentieth century has captured public imagination as did the solo, nonstop flight of this quiet young man in his silver painted airplane.

The Minnesota Historical Society is in charge of restoring and displaying his boyhood home. Since 1974 they have been using Electrosonic equipment, originally an SAV and an ES51, to show their programme. Recently they expanded the visitors centre and upgraded their Electrosonic equipment which now includes 2 SAV's, an ES69A and an ES361. Their original equipment is still in service at the Upper Sioux Agency in Granite Falls.

The Minnesota Historical Society has three other theatres in progress for which they have purchased Electrosonic equipment.

Lindbergh's home. One of thousands of small sites using Electrosonic Autopresent Equipment.

Planetaria

THE application of computer equipment to Planetaria is widespread, but some of the applications are very specialist. If you work in a planetarium you may be interested in a copy of a technical paper given by Bob Simpson to the International Planetarium Society meeting in Vancouver. The paper is called "The use of Standard Microcomputers in Planetarium automation." Copies can be obtained from any of the offices listed on page 2.

80,000 shows for Plessey

IT IS always nice when someone writes to us with what the advertisers call an "unsolicited testimonial." So we were delighted to hear from John Pollard of Plessey concerning an exhibition at London's Science Museum called "The Challenge of the Chip."

Plessey was one of the sponsors of this exhibition which ran continuously for a total of 121 weeks from early 1980. They provided a single screen show (Electrosonic Autopresent System) that was used by the Science Museum as an introduction to the exhibition. The show was made "in house" by Plessey. It lasted 4 minutes and ran continuously during exhibition opening hours. (Eight hours Monday to Saturday, four hours on Sunday).

John reckoned that by the time the exhibition closed the show had run 80,000 times! During this time the slides were replaced five times — so each slide was actually used 16,000 times, and the tape cartridges were replaced about every ten weeks. (The actual life of a tape depends on many factors, including length, operating temperature etc; but even so 7,000 shows per tape is not bad!).

The only point to emerge from John's letter that gave us cause for concern was the fact that there appeared to be insufficient attention given to routine maintenance. This was subsequently confirmed by the amount of dirt removed from the projectors when they came in for service at the close of the exhibition.

If exhibits are going to run continuously for a matter of years, then it is prudent to ensure regular cleaning of the equipment (although this can be minimised — see article below) since if it is allowed to "grind to a halt" the equipment may well need more service than it would have done if the cleaning had been done on time, and its effective life might thereby be shortened.

But none of this detracts from the fact that Plessey were pleased with the 2½ year "run" and that in the person of John Pollard they consider the slide medium reliable and effective for such specialist exhibitions.

The Energy Show at Technorama during installation, notice size of people.

Swiss energy in Winterthur

TECHNORAMA is a new Science Exhibition that has recently opened in Winterthur, Switzerland. It is a "Science Centre" rather than a museum and is full of exciting exhibits on Science and Technology of yesterday, today and tomorrow.

A major feature is a specially commissioned Multi Media Show on the theme "Energy." Conceived by the show producer, Rolf Frei of Creavis Produktion as a "Multi Media Orchestra," the show uses the combined effects of lighting, sound, slide projection, movie, fire, water, smoke and moving displays to present a thought provoking experience. A show that questions where we get energy from and what we do with it. "Energy for all" is both a slogan and a question.

Giant Cube

The 45 minute show can be seen by 200 people at a time. When they first sit down they see what appears to be a giant "Rubik Cube" of 7m x 7m x 7m. As the show starts the "cube" slowly opens out to a complex display 7m high and 14m wide, accompanied by smoke, lighting effects and an electronic music score that literally causes the audience to shake. (Enormous "woofer" cabinets are fitted to the underside of the seating!).

The show uses the resources of 1500 slides in 21 projectors, 2 movie projectors and 70 other devices. These include many switched or dimmed lighting circuits that light up objects which are otherwise "invisible" within the structure; several mechanical movement devices; such as the main cube mechanism itself, rotating panels and even a working water-wheel, not to mention two gas flame jets, a steam engine and a generator! All the items are relevant to the main theme and serve to properly support the story and argument.

Directional sound

The movie projectors are used in a particularly interesting way — they present interviews with academics and professionals on the problems and solutions of energy supply — sometimes cross-cut with the "opinions" of the "man in the street." This involves frequent stopping and starting of the projectors which, at the end of the show, automatically rewind themselves.

The sound system presented a particular challenge, due to the difficult acoustics of the hall and the fact that the audience are in two separate blocks. Besides the special effects "woofers" already referred to, the sound system is based on an 8 track tape deck with 4 tracks being used for audio. These are fed through graphic equalisers and programmed routing equipment to high efficiency horn loaded loudspeakers with a sound distribution pattern limited to the audience area.

Hybrid system

For various practical reasons the control system is a "hybrid." All effects control is Electrosonic multiplex decoders which in turn control ES6090 dimmers or other functions through a specially built Relay and Motor Control set. This had to be designed to prevent the possibility that some of the effects could be operated when the cube was closed. Operating the water wheel or gas jets in these circumstances would have been interesting if not dangerous!

All slide projector control is by System 4000 equipment, with programming both for the slides and effects all being carried out on an APPLE II computer. The slide projectors use 50mm Meridian lenses in special mounts to eliminate keystone distortion — this is essential since each big slide screen uses 6 projectors.

Team effort

The Energy Show at Technorama is a team effort. Rolf Frei's conception and direction were supported by Kaspar Wolfensburger of Zurich making the main structure and models; and Johann May of Mannheim doing the programming and multivision production. Ganz & Company, our distributors in Switzerland, and we in London were responsible for the complete "control engineering" of the show and we supplied all projection, programming, control and audio equipment, most of which was custom built at Woolwich. Leo Ellerkamp was in charge of the project for Ganz and Martin Piper for Electrosonic.

Keep the dust off Projectors

MULTI-IMAGE is a reliable medium for permanent exhibitions, museums, etc. We have installations that have been in daily use for over ten years and are still going strong. But we cannot pretend that *no* maintenance is necessary, that things will never go wrong.

The question is — how do we minimise the need for maintenance? The electronics of multivision need little or no maintenance. It is the "mechanics" that can need attention. Tape heads must be cleaned; the tape deck may need occasional servicing. The one big item, though, is projector cleanliness.

Enemy

The enemy of reliable operation of projectors is dust and dirt. As a graphic illustration of this we remember our work in Expo 70 in Osaka, Japan. In the Scandinavian Pavilion we had over 100 projectors. They were in a well designed projection gallery with separate access, and with a filtered air conditioned atmosphere. In the six months of the show running up to 15 hours a day the projectors never needed cleaning.

In another pavilion which shall be nameless we had just 2 projectors sited directly above the visitors with ladder access only possible; and with an incredibly dusty atmosphere. These projectors needed a thorough clean every *two weeks*, and would actually grind to a halt after four weeks if they were not attended to.

Thus projectors in a permanent installation should be in a clean atmosphere and at a temperature preferably not exceeding 30°C. This often means making special air conditioning arrangements; but this need not be expensive if confined only to the projectors themselves.

Transporama

Two of our clients have demonstrated considerable ingenuity in solving the problem. At the National Motor Museum in Beaulieu, Hampshire, all AV systems are under the charge of John Willrich, Museum Manager, and his son David. They have ensured that each group of projectors is in a "positive pressure" box. A fan equipped with a good dust filter maintains a positive pressure in the projector environment that keeps out dust and ensures ventilation.

Their solution in the "Transporama" multivision show is particularly interesting. This 15 projector show has been running for eight years in a specially constructed geodesic dome. Dust from unsealed concrete and brought in on the shoes of visitors was causing more projector maintenance than necessary; but there was a limited budget to do something about the problem.

Boat covers

They made a simple frame to go over each group of projectors in which was fitted a fan with filter. The rest of the frame was actually covered in a tough plastic cover made by a local firm who make flexible covers for boats! Clear panels in the fabric allow inspection (and allow the projection beam out!). The projectors can be accessed by removing part of the flexible cover that is normally held in place by Velcro.

Hong Kong

A more sophisticated solution, dealing with a more difficult problem, is to be seen at the Ocean Park Aquarium in Hong Kong. Here a 20 projector 10 screen show is shown on screens that are above the top of the enormous main aquarium that is a complete environment of fish of all kinds. (Over 5000 fish of hundreds of species are in the 15m deep tank!).

This poses an additional problem. While dust is not so serious here, the salt water atmosphere most definitely is. Besides being corrosive it can also cause damage to slides. This results in a "bubbling" effect being projected as the slides dry out.

Compressed air

Peter Cheung, senior aquarist Ocean Park also came up with the elegant solution to the problem. Each pair of projectors (with its ES3003 controllers) are housed in a neat acrylic box sited above the edge of the acquarium tank. The box has a small outlet to relieve the positive pressure within the box.

Positive pressure in this case is NOT supplied by a fan (which would merely introduce the salt water atmosphere) but by a pipe feeding in *dry* compressed air. The resulting installation is very neat and effective. Compressed air was already available in the building; but even if a new compressor had had to be supplied it would still have been an economic proposition.

PEOPLE AND ORGANISATION

The success of Electrosonic depends on many people throughout the world; especially since the local service element is often much greater than the pure "product" element. Nonetheless the resources of the parent company are important and this page gives some details.

Woolwich gets a facelift

WE moved to our present head office and factory in 1972, so have now been there over ten years. Recently we have made considerable changes to our factory at Woolwich.

The rationalisation of our product range has resulted in products requiring fewer components but more sophisticated production techniques and a longer development time. As mentioned on the right all our unit products are now made at Maidstone. Woolwich, therefore, has assumed a different role, with series manufacture contracting; but project work expanding.

Office space has been increased to allow for the considerable expansion in Sales Office staff and in Project Engineering staff. The factory still includes the sheet metalshop, and support items like woodwork, engraving, silkscreen printing, drawing office, hire and service — but its prime responsibility is now the completion of systems work. Manufacturing resources are all under the control of Peter Way, our Manufacturing Director.

Electrosonic Ltd Head Office and Factory at Woolwich.

Ian Simpson, Managing Director.

Peter Way, Manufacturing Director

In March 1982 the Woolwich plant was severely damaged by fire. Thanks to our Maidstone Plant and trojan work by the buying, stores and production staff at Woolwich; deliveries were not too badly hit; and of course the building has now been completely redecorated. Fortunately the all important Development Department at Woolwich was not affected at all.

Woolwich also houses central services such as accounts and purchasing. In overall charge is Managing Director, Ian Simpson, who also supervises the business activities of the company's subsidiary companies both within the UK and overseas.

Maidstone for unit products

SOME years ago we found ourselves seriously short of space and product facilities at Woolwich. We were also finding an increasing problem arising out of the two very different types of manufacturing that we do.

On the one hand we were making standard products in increasing numbers; on the other we were involved in a lot of "specials" work for projects. The former requires a semi "production line" environment where products are made to schedule; the latter requires a very flexible environment with space and resources varying according to the work in hand.

"/e decided to solve the problem by setting up a completely new plant designed for the efficient batch production of electronic products. The word "batch" is important. We did not seek to be a consumer products manufacturer making in tens of thousands. Our own products are needed in monthly batches of say 50, 100, or 200 units with only occasional requirements for up to 1,000.

The plant was to operate independently so we could be sure that it was operating efficiently. We can test this by allowing, indeed encouraging, it to take on assembly work for other people. Just now such work is highly competitive so we know that if we can do such work profitably for others we are producing economically for ourselves.

Denis Naisbitt was in charge of the project to build the factory, and he chose the Parkwood Industrial Estate in Maidstone as meeting our requirements. The plant operates as a separate company, Electrocue Ltd (although in fact wholly owned by Electrosonic). The Production Manager there is Steve Saunders and he is actively looking for further business. Electrocue has already made parts of communication transceivers and units for telecommunications applications; so if you know of anybody needing a few hundred or a few thousand electronic assemblies Steve would be pleased to hear from you.

Electrocue Ltd is well equipped with programmed assembly aids, flow soldering, computerised testing equipment, etc; and plans further investment to assure its position as an efficient and competitive manufacturer.

The Electrocue Ltd Plant at Maidstone.

Steve Saunders, Production Manager at Electrocue Ltd.

Part of the production area at Electrocue Ltd.

Mike Ray (right) receives the Philip Berkeley Award from John Aldred of the BKSTS.

MIKE RAY HONOURED BY BKSTS AND AVA

IN our last issue we reported that Mike Ray, our Audio Visual Technical Director, (and one of our founder Directors) had been awarded a Fellowship of the BKSTS. Since then Mike has been collecting more awards.

At the Fellows' Luncheon on 2 June 1982 he was awarded the Philip Berkely Award. This is given for the best contribution to the Society's journal "The BKSTS Journal". This is a technical journal oriented to film, television and audio visual, and in Mike's case the award was for his three part tutorial article on the subject of "microprocessors".

Mike was also awarded the Philip James Award for 1982 by the Audio Visual Association. This is awarded annually to a person who has made an outstanding contribution to Audio Visual. Mike's award was in recognition of the pioneering and continuing work he has done in the development of projection control equipment and systems.

(For North American readers the BKSTS approximates to SMPTE and the AVA to AMI. Apologies to all four organisations if they consider the comparison odious — but it's the nearest we can think of!)

The Philip James Award.

David Kerr, Sales Director.

Sales direction

FOR many years we tended to separate the sales activities of our lighting systems and audio visual products. While they will to some extent continue to need separate sales forces we are aware of the value of presenting a unified sales approach.

In 1981 this realisation led to the appointment of David Kerr as Sales Director. Previously manager of the Lighting Sales Division, David has infused his enlarged sales team with great enthusiasm as new products have come on stream and new markets have been opened up.

David reports to, and works closely with, Bob Simpson, our Chairman. Those reporting to David include Tom Geary, who has now effectively moved into David's old position, Geoff Turner, European AV Sales Manager, and Brian Atkinson, Hire and Service Manager.

The sales team as a whole now covers both unit products and systems for lighting, sound and audio visual. Obviously when major projects are involved the Project Engineering Division work closely with Sales from the outset *(see page 7)*.

Meeting with a difference

OVER 65 per cent of Electrosonic's business is outside the UK and a large proportion of this is done through distributors. About every two years we have a Distributor Meeting. These are usually in the UK; but in fact the first one was in Stockholm in 1972, and we have held them in Amsterdam and New Orleans.

Our meetings do not really compare with those of IBM; but we suspect they are much more fun. We do, however, organise the meetings on strictly formal lines and we do make extensive use of our own audio visual techniques to support the presentations and to help impart a structure to the event.

The last one was based at the Great Danes Hotel outside Maidstone. The 60 or so overseas delegates (to be augmented for some events by up to a further 60 Electrosonic UK personnel and wives / husbands) met on a Thursday evening for dinner, accompanied by several multi-image shows from as far afield as Canada, Australia and Norway.

The whole of the Friday was taken up with sessions at the Hotel, which has the ideal facilities for an event of this kind. Most sessions were in small groups — especially to allow delegates a close look at new equipment etc. One of the sessions was a visit to Electrocue Ltd which is only ten minutes away. In the evening the delegates were divided into four groups and each went to a different country pub for dinner.

All Saturday was based at the Woolwich factory. Again a "group" system was used with each group of 25-30 people moving from one event to another. One of the most important sessions was on "The Presentation Room" and included a full demonstration of our own then new room. Others covered Project Engineering, Lighting Control, Product Quality and so on.

The evening was spent in the splendid surroundings of Leeds Castle. The party was voted the "best ever" so we shall have a hard time finding something better in the future. One special event was the presentation by the team from Nissen Lie Consult of a single share in the Norwegian State Oil Company to Gote Ljungberg of Ljusteknik AB Sweden.

Final sessions were son Sunday morning at the Hotel. The afternoon was for fresh air and "sports" — including the chance to have a go at archery and clay pigeon shooting. The whole meeting was a great success not only because of the ability to impart a lot of information quickly but especially because it brought all the Electrosonic team together for a few days.

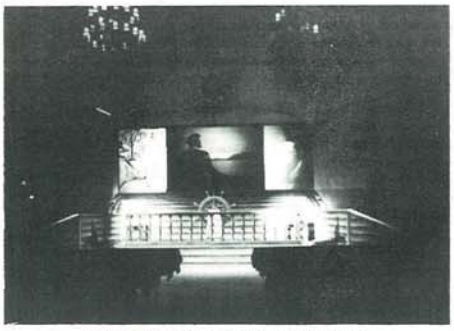
Gote Ljungberg having just received his oil share. Rolf Brekke from Norway and Marjorie Spani from Vancouver are amused.

Kevin Curry, President of Electrosonic Systems Inc., entertains.

Thomas Ganz (Switzerland) happy to be in the company of Annabelle Margadant (Netherlands). Lourie Coetzee (South Africa) looks on.

AV NEWS

A selection of Audio Visual Stories, with the emphasis on show production, and on the sales applications of the multi-image medium.



The Scott "Sailing Ship" in San Diego

Scott sets sail

System 4000 for Multi-Image control is ideal for Conferences. We were pleased to receive the following report from Pentact Group.

The Hotel del Coronado, in San Diego, California, set the stage for an unusual multi-media event. Pentact Group, a communications company from Vancouver, British Columbia, Canada, took the executives and sales force from Scott Paper Canada on a voyage of corporate and personal discovery during their 1981 Conference.

The ballroom stage, in the hotel where Edison tested the first electric light bulb, was transformed into the prow of a sixteenth century sailing ship. Designed by Pentact Group, and built by the San Diego Opera Society, the set included a forty foot cyclorama, as an ocean backdrop, the ship's mast, and a 7' x 21' screen incorporated in the ship's sails.

Fifteen rear-screen projectors, and stereo sound, carried the audio visual montage. At the heart of the production were five SONICS, activated through the Electrosonic ESCLAMP program by an APPLE II Plus computer.

Voyage

This system translated 3200 slides and 1500 cues into a three day event, where the underlying theme, "Voyage of Discovery" explored all areas of Scott Paper's growth and success.

The event was unusual in that it maintained production continuity not only through the automatic presentations, but also in Speaker Support Visuals. All support slides were entered into the APPLE and activated on voice cue by the manual space bar, allowing for multi-imagery and animation, a giant step forward from the standard, speaker-operated single tray presentation.

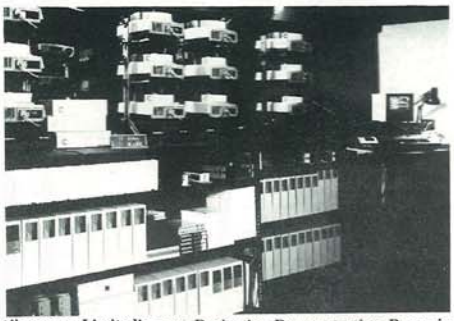
Productions incorporated full screen panoramas, custom lyrics with library music, roving spotlights, displays around the ballroom perimeter which opened and were lit on cue, a pipe band, life sized puppet with a wireless microphone, as well as special video and audio requirements.

The eight member crew from Pentact Group, and the equipment itself were pushed to the limit, as showtime and rehearsal time demanded a non stop forty eight hour shift. The SONICS and the APPLE ran continuously throughout this shift with no respite. They performed! There was no equipment failure, and no need for back-up.

Conference equipment was supplied for Pentact Group by Stuart Spani of Norlynn Distributors, Electrosonic's Western Canadian representative. The SONICS themselves came from Electrosonic's Minneapolis office.

For the producers, the key to the success of this conference lay in co-operation and reliability. It was a meshing of Canadian and American skills and supplies, all of which were in the right place at the right time, living up to expectations.

The SONICS themselves performed "above and beyond the call of duty". Having dictated the essence of the conference presentations, they proved to be hard-working and tough. This kind of reliability and durabilty is vital to the audio visual producer where the success of any event ultimately rests in equipment potential and in its ability to perform when there are no second chances.



Cineverse Limited's neat Projection-Demonstration Room in Toronto.

Cineverse open new facility

Cineverse Ltd is one of Toronto's leading AV production houses, and they have recently moved into new premises. These feature a custom designed theatre which is fully equipped with Electrosonic's System 4000.

Mutivision Electrosonic Ltd designed the technical facilities and completed the systems installation. Since it is a "producer's installation" it has to be equally suitable for both client demonstrations and show preparation and production.

Geoff Turner. European AV Sales

Europe Sales

Geoff Turner is Manager for the sale of Audio Visual Products throughout Europe. Within the UK this means being in charge of our direct sales force and of UK Dealers. Within "Mainland" Europe this means working with our local Distributors to help new applications and sales of our products.

Geoff works closely with Yvonne Hegarty, Sales Executive responsible for liaison with all overseas distributors and for special events like exhibitions and seminars; for example Photokina.

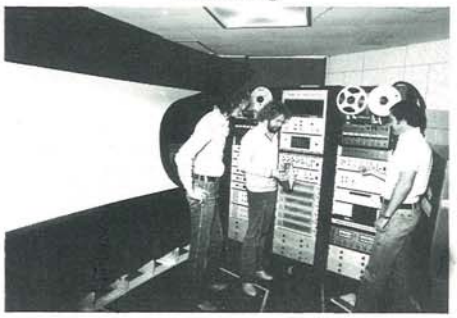
SOUTH AFRICA SELLS

Our distributors in South Africa, Twin Imports (Pty) Ltd., have recently opened new offices in the centre of Johannesburg. They include excellent demonstration facilities both for our products and for the computer products also handled by the company. ES Sales in South Africa are buoyant and a recent order of interest was a complete "System 4000" set for the Platetarium in Johannesburg.

One of our oldest "producer" customers in South Africa is Johann Kruger of Multivisio. Based in impressive offices in the Metal Box Centre, Johann has many innovative productions to his credit. He specialises in major product launches (he has worked for all the major automobile companies!) but has also tried his hand at entertainment.

At Sun City in Bophuthatswana the stage show "spectacular" includes a sequence on New York. This is based entirely on projection effects designed by Multivisio and controlled by Electrosonic System 4000. A more daring experiment was "Solar Vibrations", a 25 minute public entertainment show based on space artwork and specially composed music, that ran for 9 months in the entertainment complex at Sun City.

Twin Imports New Presentation-Demonstration Room in Johannesburg.



Johann Kruger (left) Alan Milne and Johan Pieterse of Multivisio set up the Electrosonic Automatic Show System for Solar Vibrations.

On the road with ROUNDEL and SONY

Roundel Productions of St Johns Wood in London went on tour recently with Sony's second annual Roadshow to present their new audio and video product ranges to dealers throughout the UK; and, as on the first tour, Electrosonic's "System 4000" was used for multivision sequences and speaker support.

Sony's exciting new video products were unveiled by TV personality Noel Edmonds, whose entrance was heralded by flashes and bangs and clouds of smoke.

The six venue tour began in 18th Century splendour in Bath, moving on to Manchester, Sterling, Harrogate and Warwick; and finishing with two shows at the Lyric, Hammersmith in London.

Large audiences and enthusiastic response greeted Roundel's presentations of Sony's new products, and the tour is planned to be an annual event.

Sony recognises that they cannot rely solely on exhibitions and trade presentations alone to present their complex ranges. Moreover, the close relationship that Sony works hard to maintain with their dealers is enormously enhanced by taking the show to them.

In the fast moving market place of audio and video products, communication with entertainment is an ideal recipe. In a programme developed entirely by Roundel, Noel Edmond's style and professionalism was the key to the successful presentation of a large number of entirely new products. Noel worked hard to be as knowledgeable as Sony's own product managers about the new range, and handled all the equipment on stage with a relaxed confidence.

The other stars of the show were, of course, the products themselves and the stage set, carefully designed to suit all the venues without alteration which displayed them both audio visually and physically.

See colour picture on Page 9.

Awards at Biarritz and AMI

Multi-Image "Festivals" can be difficult to stage and difficult to attract an appropriate audience. However, two that have more than succeeded are those in France and the USA. In France a combined Festival of Industrial and Business films, videograms and "Dioporamas" is held every year in Biarritz. In the USA the Association for Multi-Image moves its Festival round the country.

Jean Claude Bargain, Managing Director of our French distributors, Technitone, reported on the 1982 Biarritz festivalas follows:

"Pour la cinquième année depuis l'introduction de la "Multi Image" au festival de Biarritz qu'organise le Conseil National du Patronat Français (C.N.P.F.), l'équipe Electrosonic-Technitone avait du faire un effort particulier.

Trois salles de projections et un atelier de programmation en APPLE/SONIC etaient a installer. Un camion de 18 m3 de materiel etait descendu avec toute l'equipe de Technitone au complet pour cette grande semaine de l'audiovisuel.

Les projections du jour étant préparées la nuit, les heures de sommeil et de bronzage sur la plage n'ont pas été importantes malgré un soleil de plomb.

Le palmarès démontre la nette supériorité des réalisateurs de programmes du "Club Electrosonic" qui raflent cette année encore, 50% des prix.

Ce score, confirmé depuis cinq année durant lesquelles Electrosonic a regulierement projeté le premier prix de Biarritz, et une preuve de la supériorité des Réalisateurs "ELECTROSONIC" sur le marché français.

De nombreuses ventes de systemes APPLE/SONIC ont été enregistrées à Biarritz. Le nombre des systèmes ES 4024 livrés ou en cours de livraison, s'élèvent maintenant à 31 unitées."

Our presence at the 1982 AMI Festival in Philadelphia was not as strong numerically but certainly excelled in quality. Two gold awards, a silver and two bronzes were collected by "ES" producers. One gold was for "Electricity" an 18 projector show produced by Visual Images Inc (see back page story "Knoxville"), the other, which also secured an "AMI" award was for "The Whale Dance" (see front page story). A bronze award in the Art Category was gained by Akira Ishii of Japan; and both Rick Rydlum and Milt Lee won awards in the documentary category.

SHORT REPORTS

The 1980 COCA COLA Annual Convention in Madrid had the theme "Coke and the World Cup". The two day meeting was supported by a 21 projector multivision system all supplied and operated by our Spanish Distributors, Audio Visual Hardware.

Audio Visual Consultants, one of our dealers in Edinburgh, reports on the combined use of video and multivision with success at the Scottish Business Show in Aberdeen. Show production was by Cinecosse. One track on the video tape cassette is used to carry control signals for the slide projection. We ourselves first used the technique back in 1974 for the United States Steel Company; but, like AVC we expect to see more of it now as video projection systems improve.

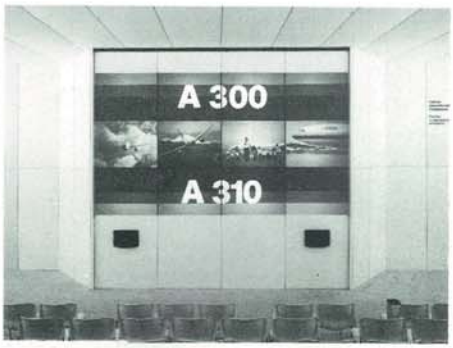
Advertising by Slides has always proved a difficult commercial proposition; but our Norwegian distributors Nissen Lie Consult report success. In the Oldrud Hotel, Hamar, a cabaret show is preceded by a 15 minute multivision show on 9 projectors. The show consists of seven 2 minute "spots" featuring things as diverse as drink cars and insurance. The show, on a 7 metre wide screen, runs fully automatically and has been a great success.

Prater Audio Visual produced our new "House Show". It is called "Electrosonic, the Systems People". It is emphatically not a multi-image demo show, but is an excellent example of the kind of show an industrial customer needs. We need and use it as a visitors show and as a show to help sell our systems expertise to architects, consulting engineers et al. We also use it at seminars and for this purpose it is already available in Japanese, English, French and German.

MBB and Panavia are just two of the major customers of Photo Reger AV Team of Munich. Both these clients need prestige multivision shows for public exhibitions, such as the Hannover Air Show, the Paris Air Show and the Farnborough Air Show. In each case the shows describe the capabilities and resources of the Company; and in each case the show equipment was delivered by Mietzner and Mattis, our local dealer. Panavia used 11 screens, 12 projectors. MBB used 12 screens, 36 projectors plus 3 movie projectors.

Multivision in Indonesia. The company YN'SCO is an audio visual pioneer in Indonesea, producing highly professional shows using 12 or more projectors on the ES3003 system. Managing Director, Youk Tanzil has had developed his own "pin register" camera to create perfectly aligned slides. YN'SCO are serviced from our Singapore distributors, Refiffusion Services (Singapore) Pvt Ltd.

Video Transfer of multivision and single screen slide programmes is increasing. Usually this is to give shows a wider audience but sometimes multivision is just used as a production method. Swedish supergroup ABBA had a four minute promotion made for "ON AND ON AND ON" using 480 slides in four minutes. (9 projector ES3003 system). The show was made for Polar Music by Peder Wistedt Producers AB. Twenty 2" videotapes were made for distribution to TV stations round the world.



The MBB Show at Hannover and Paris. Production by Photo Reger AV team.

ES WORLD NEWS

Song and Dance is multi image

Andrew Lloyd Webber has provided the music for a consistent run of "hits" — "Jesus Christ Superstar", "Evita", "Cats" and now "Song and Dance".

"Song and Dance" is called a "Concert for the Theatre". It consists of two separate works; one is "Tell me on a Sunday" with lyrics by Don Black and sung entirely by Marti Webb and the other is "Variations" with Wayne Sleep leading an incredibly energetic team of dancers dancing to Lloyd Webber's "Variations on a theme of Paganini".

David Hersey has worked as lighting designer on all the major 'Lloyd Webber" productions — but "Song and Dance" was to be the first time that he was responsible for both lighting and Set Design. The same striking geometrical set is used in both parts of the show; it is served by a complex battery of effects lighting but in "Tell me on a Sunday" there is a definite need for "real" images.

Marti Webb on the set of "Song and Dance."

Apple Xenographic

For this reason the main set, which is made of dark rear projection material with a half mirror surface stretched over a rigid steel frame, is served by eight Xenon Arc Slide Projectors. These are Xenographic 500's with fade devices and 25mm lens producing 8ft square images.

The projectors are controlled by ES4103 SONIC projector controllers and the whole system is in turn controlled by an APPLE II computer running under ESCLAMP. The computer is at the prompt corner and a single data cable leads to the projectors which are on a "flying bridge" which rises and falls with the main set — a rather terrifying installation which fortunately requires little maintenance!

Song and Dance opened at the Palace Theatre in London in March 1982.

Computer controlled projectors on German Television

ELECTROSONIC GmbH supplied the Multivision System used on the popular quiz game "Kopf um Kopf" (Head to Head) that is shown on German television.

The show is a technical and scientific general knowledge quiz; it is introduced by Alexander von Cube and is broadcast by West Deutsche Rundfunk, the largest television station in Continental Europe.

A 20 section "matrix" multivision system of high picture brightness is used to provide the pictorial explanation of the quiz questions and answers; and also as an attractive background to the set. It can use up to 48 projectors and is controlled by Electrosonic "System 4000". The Apple II computer used for making up the programme sequence is "on line" during rehearsal and the show, as this allows rapid sequencing of cues; and the ability to repeat show sections.

The system was delivered in July 1981 and was therefore one of the first installations of ES4003 units. Any TV studio is sensitive to equipment generated RF interference; so ES GmbH had to work with WDR to ensure its absence. The ES4003 units were shown to be free of such interference but the APPLE had to be specially imported from the USA since at the time only "USA Apples" met the FCC regulations!

Alexander von Cube asks the questions on the TV show "Kopf um Kopf". Multivision provides support. The Owl is the symbol of the series. In the lower picture young competitors debate a point.

$1 MILLION CONTRACT IN THE GULF

Electrosonic has been awarded the contract for the supply of stage lighting and control, sound reinforcement, communication systems and audio visual systems for the New National Theatre — Abu Dhabi.

The building is scheduled to open in late 1983.

This contract is the latest in a series of installations in the Emirate of Abu Dhabi and Al Ain. Recently completed contracts include 60 channel stage lighting and control system for the Al Ain Sports and Social Club; a 120 channel stage lighting and control system for the Al Ain Municipality; an 84 channel stage lighting and control system for the Al Ain Public Library; and a turnkey cinema/theatre contract for the HQ of ADMA OPCO.

B.C.L.

In all these cases contract negotiation, installation and commissioning was carried out in partnership with Business Communications UAE (Private) Ltd in Abu Dhabi and Dubai; and it is due to the technical expertise of BCL that Electrosonic is able to offer a unique after sales service in the UAE. This has been an important factor in Electrosonic obtaining contracts in the area despite very strong competition from other international manufacturers.

Electrosonic service at Knoxville

SUMMER 1982 was EXPO time in Knoxville, USA. The theme of EXPO '82 was ENERGY; and exhibitors included many countries and major corporations. EXPO '82, like those in Spokane, Osaka, and Montreal before it, gave a good example of how Electrosonic not only provides equipment but also *service*.

For example in the British Pavilion at EXPO '82, there was a 12 projector multivision, a 6 projector display, lighting control, 7 video recorder/monitor systems and a colour camera. All this was supplied on hire to our customer (the Central Office of Information) with on site service throughout the exhibition and subsequent dismantling. No need to worry about freight, spare parts or maintenance; and all at a highly competitive inclusive cost.

We also provided on site maintenance for the AV shows in the Italian and European Community pavilion (both of these had Electrosonic equipment delivered by Electrosonic SpA of Rome) and supplied the equipment for the American Electrical Energy Exhibit. In all cases the clients were assured of continuity of shows and of our full support.

An attentive audience for "Britain" (above) and an amusing projected display (below). Both in the British Pavilion at EXPO '82.

GOLD AWARD

The show ELECTRICITY in the AEEE Exhibit was produced by Visual Images Inc of Washington DC. It uses 18 projectors (ES4000 "SONIC" System in control) and has the theme "How Electricity Benefits and is used by all of us." It is an outstanding show which will surely get a wide showing after its premiere at Knoxville. It won a Gold Award (top of the category) in the highly competitive public relations category at the AMI Festival in Philadelphia.

EDCO REED

The very popular British pavilion, designed by the C.O.I., featured an amusing, entertaining, and informative show on "BRITAIN," produced by Edco Reed. It was an excellent example of how a public exhibition show should be made, and we have been very pleased to run the same show at a "British" Exhibition in Tokyo and at Photokina.

Electrosonic dimmers Flashlight in Holland

OUR lighting control products are distributed in the Netherlands by Flashlight Utrecht BV. While they have recently started to promote our products in the commercial lighting field, their main market is the entertainment market with particular emphasis on the needs of professional theatre.

Flashlight have been very successful in selling our "Flatapak" and "Linkit" portable dimmer systems; and have also sold many "channels" of ES6006 6 x 2kw dimmer assemblies. For example, the Stadsschouwburg Nijmegen has 102 channels at 2kw (plus 25 ES6395 5kw dimmers) and the Cultureel Centrum Spijkenisse has 48 (plus 12 ES6395).

A big "Houselights" dimming system was supplied to the Stadsschouwburg Amsterdam. Here a 35kw ES6090 assembly is used.

"This is Shamu." The Killer Whale is the star of the show at Sea World in Florida.

ES awarded major contract at Sea World

The picture above from Sea World in Florida shows the best known aspect of Sea World — the big open air show. But Sea World is more than one show, with many other entertainments that make it more than one day out.

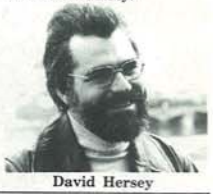
Opening in 1983 is a new "theatre" style show called "Undersea Fantasy". This combines entertainment and education in a musical show incorporating a cast of "Sea World" characters. The show uses live actors, augmented by pre-recorded music and effects; and takes place on a 90ft. wide theatrical set.

The set embodies a 75ft. wide rear projection screen within a "coral reef" and in addition to the live section uses the resources of animated figures, special effects lighting and over 60 automatic slide projectors. The complexity of the projection and lighting demands that fully automatic computer control be used and for this purpose control signals are carried on the main multi-track audio tape.

Robert W. Kirchgessner and Associates Inc. are responsible to Sea World of Florida for technical consultancy and audio visual production. Electrosonic Systems Inc have been awarded the contract for the high power audio system, the complete stage lighting system, the multi-image effects projection system, 35mm motion picture projection, and the main computer control. In addition the contract includes lighting and special effects design: and to carry this out we are pleased to have retained the services of David Hersey.

David Hersey hails from the USA, but has made London his main base for the past fifteen years. He is one of the top theatrical lighting designers in the world, with many major credits to his name, and is lighting consultant to the National Theatre of Great Britain.

Shows that David Hersey has lit range from "Henry IV" for the Royal Shakespeare Company to "Evita" for Harold Prince. From "Guys and Dolls" at the National Theatre to "Cats" in London and New York. Both Sea World and ourselves are delighted to have him working with us on "Undersea Fantasy."



David Hersey

News wanted

We like to hear from customers and dealers how *they* are using Electrosonic equipment. Send your stories to Bob Simpson at Electrosonic; for possible inclusion in the next ELECTROSONIC WORLD!

Electrosonic worldwide

ELECTROSONIC specialise in the design and manufacture of lighting control, audio and audio visual products and systems.

We are represented in many countries throughout the world. If you do not know the name of your Electrosonic distributor please contact any of the principal offices listed on page 2.