ELECTROSONIC WORLD

LIGHTING CONTROL, AUDIO, AUDIO VISUAL

No. 3

INSIDE

SINGAPORE CELEBRATES

"25 YEARS of Nation Building" is the title of a major exhibition in Singapore, held to mark the 25th anniversary of the independent republic. Our AV Distributors in Singapore, Rediffusion Singapore, have a number of major installations within it, all using Electrosonic Control equipment.

The "Success" Theatres are two back to back 21 projector shows; the "Heritage" Theatre has another 21 projector show, this one with a 31m screen. Both these shows are by Sound and Vision Communications.

Ian Lloyd Productions have a 7 projector show for Singapore Airlines, this uses very short projection distances and includes controlled lighting. The "Defence" exhibit uses 3 Apollos; and the "Political History" show uses 2 Videotapes, switched to 8 monitors, and linked to 16 projectors and 80 switched circuits.

DIGIDIM lights up

ELECTROSONIC introduce DIGIDIM, a new range of modular dimmers and controls. The dimmer modules and their range of mounting hardware cover the needs of single dimmer units to multichannel systems using hundreds of dimmers. The control systems introduce new flexibility to architectural, display, industrial and entertainment lighting control.

Over 20 years ago Electrosonic introduced its first product — an automatic thyristor dimmer. Since that time tens of thousands of ES1006, ES1093 and ES6090 Automatic Dimmers have been installed in many countries. DIGIDIM is the latest in a distinguished line, continuing the tradition of solid engineering and ease of use; but introducing features only made possible by recent advances in microprocessor technology.

All DIGIDIM Dimmer Modules are "Plug-in" for ease of installation and maintenance. They are "Hard Firing" and the 10A, 20A and 2 x 10A modules are available in a choice of control options — analog, push-button automatic and pure digital.

DIGITRAK, the complete wall mounting assembly for up to 12 dimmer channels.

The mounting hardware is a choice between DIGITRAK for when only a few dimmers are required and DIGIRAK for when many dimmers and a complete distribution system are called for.

The controls for commercial applications can either be conventional or be based on the "Lighting Scene" concept. Here installation is made very simple, requiring only a 4 wire data highway to be looped round all control panels in the system. The operation of SCENESET and MULTISCENE, the key controls of the new range, is described in more detail on page 7.

A typical SCENE SELECTOR panel and the Lighting Designer's friend, the SCENEMAKER.

ES awarded Space Center AV contract

ELECTROSONIC Systems Inc. have been awarded the contract to instal a complete Audio Visual System in a new Visitors Orientation Theater at the Kennedy Space Center, Cape Canaveral.

The $300,000 contract calls for the detailed design, manufacture and installation of an Integrated Multi-Media Presentation System which has to fulfil three roles.

First it has to be able to run an automatic multi-media show being created for the Center by Laurence Deutsch Productions. This uses 37 slide projectors, projected video, 35mm movie, multi-channel sound, and programmed lighting and stage effects.

Second it must be suitable for live presentations describing current activities at the Center. This involves a live presenter and a dual video projection system. The presenter has direct control of the video sources which include pre-recorded segments and land line links with the launch areas.

Finally it must meet the needs of visiting lecturers and special events. These require 16mm, 35mm and 70mm motion picture projection and high power slide projection. The 35mm projection includes a 3D option.

Electrosonic Systems Inc. are contracted to David Boland Inc., who are the general contractors for the project, which is being carried out for TWA Services Inc., who operate the Visitors' Complex at the Kennedy Space Center for NASA.

The outdoor Exhibit Park at the Kennedy Space Center.

Startling graphics in "Windows on the Universe". From Image Stream Inc.

WINDOWS ON THE UNIVERSE

THE California Museum of Science and Industry, near downtown Los Angeles, opened its new Aerospace Wing just before the Olympic Games. A central feature is a specially created Multi Image presentation given on a 33ft x 23ft (10m x 7m) "sail" screen. Here is just one of the many striking images in the show.

"Windows on the Universe" was written by Ray Bradbury and narrated by James Whitmore. The show was produced by Image Stream; their president, Christopher Korody, said he was delighted to work on the exciting project — he was happy that the public would have the chance to see the sort of work his company does for aerospace corporations.

The 12-minute show includes some of the rare NASA and JPL drawings, photographs and research that went into history making aircraft and space missions. It uses 21 projectors, 1680 slides, and a 300W multichannel sound system, and runs automatically every 15 minutes. Five million people are expected to see the show in the first year! The Autopresent Control System is Electrosonic System 4000.

SDA PRESENTATION ROOM

THE Scottish Development Authority have a prestige Presentation Room at their Glasgow Headquarters, intended for presentations given to individual client organizations.

Designed by Mackay Design Associates, the room accommodates an audience of 5 or 6, with 2 or 3 presenters. It provides a tiered structure of information through a range of display and audio visual media. This enables presentations to be tailored to audience needs, and allows sufficient back up to answer detailed questions that may arise from the presentation.

The technical facilities were designed, manufactured and supplied by Electrosonic, with installation by Avtech Services Ltd. The system includes a comprehensive lighting control system for the display panels and a fibre optic illuminated map of Scotland, using 12 ES6090 Automatic Dimmers.

Infra Red

Projection facilities include front projected 16mm film and an ES3500 ESRAX Random Access Slide Projector, both working onto a motorised roll-down screen. A 27 inch Display Monitor is used to show material both from Professional VHS Videocassette and from the SDA's main frame computer, an IBM 3279. This requires a special switching system to deal with the scanning requirements of the IBM Data output.

The SDA Presentation Room. The maps include fibre optic illumination. The infra red and random access controls can be seen on the table. The picture below shows slide projection in use.

A special feature of the room that allows the presenters maximum flexibility is the master control panel. This controls all 45 of the main room functions and effects. It is a cordless control panel using Electrosonic's Industrial Infra Red remote control system. The panel was specially made to exactly match the SDA requirements, but is based on standard Electrosonic sub assemblies. The rack mounted Receiver/Decoder units are sited with the dimmers and audio visual equipment.

Besides supplying the technical equipment, Electrosonic also built the special projection equipment tables, and the metal enclosures and lighting systems for the map displays. The map of Scotland includes 16 groups of fibre optic illumination.

EDITORIAL

THE last issue of ELECTROSONIC WORLD had an eventual print run of 125,000, and seems, again to have been enjoyed by its international readership. We hope that this, our third issue, will be as well received. Our aim as before, is to report on the varied activities of the Electrosonic Group of Companies and their widespread customers.

Each story is included for its intrinsic interest. Naturally we identify the role of Electrosonic products and services, but we hope that they will stimulate the effective application of Audio, Lighting Control, Video and Audio Visual techniques. We serve a worldwide market which is full of surprises, and it may be either re-assuring or galling for you to find that someone the other side of the world has had the same idea as you!

20 YEARS ON

1984 was ELECTROSONIC's 20th Anniversary. We still regard ourselves as a "young" company, with plenty of new ideas. It comes, therefore, as something of a shock to realise that we are one of the older firms in the business. Older than most of our customers, and old enough to have seen many quite substantial businesses come and go. Old enough, also, for many of our "old boys" to have set up prosperous businesses of their own, a fact of which we are particularly proud.

When we started in 1964 we specialised in the technical needs of automatic displays. Most of our work was done on a hire basis, and all of it required site service. We realised, however, that if we were to make any mark, we should have to have a unique product. We chose the then new component, the thyristor or SCR, to be the heart of a new concept in automatic dimming controls. We were one of the first companies to produce solid state lighting control equipment.

We have continued to use the latest practicable technology in our products and systems. We have used microprocessors as the basis of our Audio Visual products since 1976; our latest DIGIDIM Lighting control products now also use the most up to date microprocessor technology; and development work we are now carrying out using the latest generation of memory chips will result in some "state of the art" Audio products. We hope we cannot be accused of failing to keep up with technological developments.

And yet ... our origins as a service company, our appreciation of the need for "the show must go on", will always lead us to try and come up with the most appropriate solution to a technical problem, as opposed to the most fashionable. We intend to remain a "young" company with a sufficiently aggressive sales outlook to ensure continued development and prosperity; but we shall also trade on our experience, our knowledge of what actually works best, to ensure that customers get products and systems that meet their real communication and control needs.

1984 was a good year for ELECTROSONIC, The Systems People; and we look back with some pride to the work done over the past 20 years. Pride, but certainly not complacency. We look forward to the surprises of the future, and hope we shall have as much enjoyment controlling sound, light and images in the next 20 years as we have had in the past 20!

ELECTROSONIC WORLD

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AV WORLD NEWS

Electrosonic Service at Expo 84 New Orleans

WORLD Fairs are fun, but they make special demands on audio visual equipment suppliers. The Louisiana World Exposition held in New Orleans in the summer of 1984 was no exception, and once again Electrosonic were able to provide a special "EXPO Service" tailored to the needs of Exhibitors, and based on experience of EXPO type work going back to EXPO 67 in Montreal.

EXPO 84 had as its theme "The World of Rivers; Fresh Water as a Source of Life". Exhibitors included The States of Louisiana and Mississippi, the US Government, Federal Agencies, Major Corporations and several overseas countries. Many exhibitors used Audio Visual Techniques, and a significant proportion of these came to Electrosonic for service.

The work that Electrosonic carried out at EXPO 84 was varied. It ranged from being the main contractor for the supply of complete complex systems, to simply providing on-call service to maintain equipment supplied by other companies.

Six technicians

To meet the needs of the varied customers Electrosonic had a permanent staff of 6 Technicians on site for the whole duration of the Fair. At installation time there were 10 Electrosonic Engineers and Technicians of 4 different nationalities!

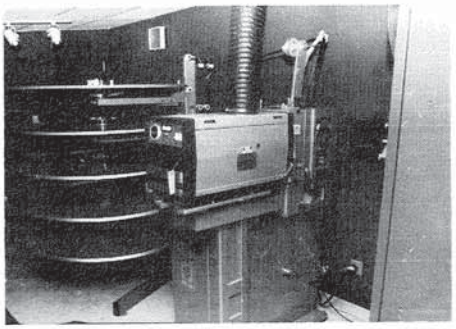
The main team of 6 provided proper coverage for the 12 hours per day, 7 days per week opening hours. A Radio Paging System was used; such that by simply using the ordinary touch tone telephone within a pavilion, an exhibitor could summon the Electrosonic technician. He would be equipped with a paging receiver capable of displaying a number code — this code identifying the pavilion needing help.

Movie

Three of the systems supplied by Electrosonic used complex Movie Projection Systems. As a matter of general observation it was interesting to see that the most spectacular shows at EXPO 84 were based on optical projection; and all the signs are that this will continue to be the case for many future expos. Shows based on video or video projection completely lacked the punch and quality of the film based presentations.

The most elaborate installation by Electrosonic was in the EEC Pavilion (see separate story "Rondovision for the EEC"). This used 3 interlocked 35mm movie projectors with endless loop film handlers, linked to a complex slide projection system.

The AEEE (Electric Energy) Pavilion featured a movie theatre for which the engineering design was done by Will Szabo Associates. A specially notable feature was the high quality of the multi-channel sound, run from a separate interlocked 35mm sound transport. In common with all the 35mm movie projection systems supplied by Electrosonic to EXPO 84, the AEEE system was installed by Electrosonic on a hire basis.



The neat Movie Projection Installation in the AEEE Pavilion (above) and the wide screen Multi-Image Show in the Canadian Pavilion (below).

In the Chrysler Pavilion Electrosonic installed a system using no less than 5 interlocked 35mm movie projectors. They all showed the same film projecting onto "Pentastar" shaped screens, one on each side of the "Pentastar" shaped auditorium.

Multi-image

Electrosonic Multi-Image systems were to be seen in several pavilions. The Italy Pavilion featured a "peep show" multivision, with a show on the fountains of Rome. The USA Pavilion had an interesting big screen multivision with an unusual masking arrangement (the soft edge masking being done on the front of the objective lenses). The AEEE Pavilion featured a stylish multivision using hexagonal screens.

Possibly the neatest and best show was that in the Canada Pavilion. Here a 21 projector show (run from a standard ES4603 Presentation Unit) was presented on a wide wide screen, 4 images wide with 3 soft edge overlaps. The show described the enormous influence that rivers and lakes had had on the exploration and development of Canada. The format nicely matched the sheer width of Canada as a country.

Service

The Electrosonic commitment to providing an on site service meant that several other exhibitors used Electrosonic to provide a "start up, shut down and emergency" service — even though the equipment that was being serviced was supplied by other companies. All part of the Electrosonic "Systems People" philosophy, which recognises that just selling a pile of equipment is the "easy" bit, and that it is the follow through that counts.

Electrosonic is providing a similar site based service at EXPO 85 in Tsukuba, Japan; and surely expects to do the same at EXPO 86 in Vancouver!

57 Apollo meetings for ESSO

THE round of annual Dealer Meetings organised by Esso Petroleum Canada is a real marathon. In a 4 week period no less than 57 separate two and a half hour meetings have to be held, with locations ranging from Victoria BC in the West to St. John's Newfoundland in the East.

In 1984 Eagle Communications of Don Mills, near Toronto, were asked by Esso to solve the problems raised by this series of meetings. Apart from the geographical problems the presentations had to embrace 11 categories of plans, promotions and sales programs. They had to be informative and entertaining, suitable for both employees and dealers; and it had to be possible for each presentation to be given by a 2 man team. The team had to be able to work "one city a night, five nights a week", without the need for a technician.

500 slides

Eagle Communications recommended the use of slide based presentations, with a mixture of pre-programmed material and speaker support slides. In fact each show used 4 three projector programmed segments and 7 single projector speaker support segments; with a total of 500 slides in all. The shows were "regionalised" to correspond to the different plans in each region; and 5 sets of portable equipment were provided, making it possible for 5 two man teams to cover the entire country in just over 4 weeks.

Ron Baker of Eagle Communications concluded that "Electrosonic APOLLO Presentation Units were the best available solution to meet their Client's requirements." Particular points mentioned about APOLLO were the high quality of the sound, the ease of use, and the ruggedness of the units, which had to withstand daily transportation by car, chartered airplane and commercial airlines.

96 projector show for Kentucky

EARLY 1985 sees the installation of a massive 96 projector multi-image show at the Kentucky Derby Museum, Churchill Downs. The show is given in an exhibition space with a huge oval wrap around screen, so that the whole race track scene can envelope the audience.

Electrosonic Systems Inc. of Minneapolis are responsible for the projection system. Projection angles and distances have had to be carefully calculated to ensure a continuous image when required. The whole show is run from Electrosonic System 4000, with the cue sequence being stored in bubble memory. This means there need only be a clock track on the tape. If all show data was on tape it would need 4 control tracks to store it.

System specification and consultancy is by Robert W. Kirchgessner & Associates, and the show is produced by Donna Lawrence Productions.

Direct marketing by Ganz

ONE of the strengths of Electrosonic is the level of service that is offered by the Electrosonic Distributors round the world. In many cases the resources of these Distributors are considerable, especially when it comes to serving the needs of large audio visual installations, whether on a permanent or temporary basis.

A good example is one of our longest serving distributors AV Ganz of Zurich. An example of their work was the provision of all the audio visual facilities at the Direct Marketing Symposium held in Montreux in May 1984. This symposium is the largest and most important of its kind in the world, and in 1984 had more than 2500 participants from all over the world.

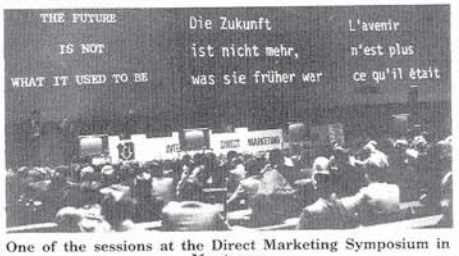
AV Ganz has been the audio visual contractor for the DMS for many years. In the old days the organisers only required a couple of slide projectors, but now the DMS is a major Audio Visual Event!

98 speeches

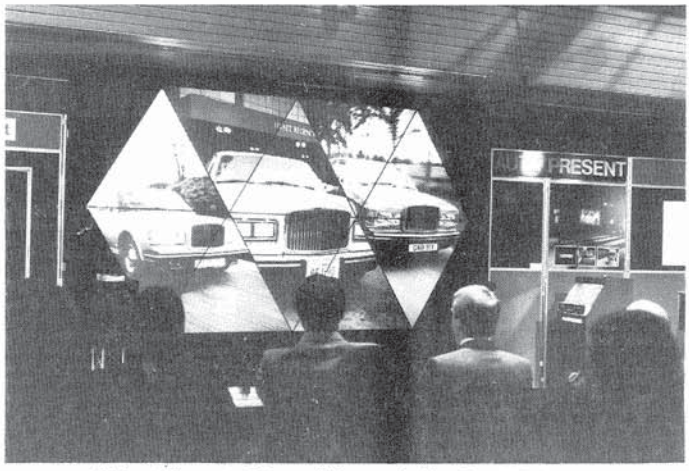
The Symposium used 4 conference halls concurrently, and in all no less than 98 speeches were given, ALL of them supported by Visual Aids or Audio Visual Programs. These ranged from simple OHP to Multi Media mix with 18 slide projectors, big screen video projection and combined live-cine presentations.

Multi Image shows were at times being given in 3 halls simultaneously, while at the same time others were being rehearsed in two rehearsal rooms. The great majority of programs were run on Electrosonic Systems 3000 and 4000, with software coming from the USA, Sweden, Finland, The Netherlands, Germany, Italy and, of course, Switzerland.

AV Ganz had a technical staff of 8 people working at the Symposium and together they put in 750 hours work on site. They were tending a massive flock of 16 Screens, 50 Slide Projectors, 2 OHPs, 2 Xenon Arc 16mm Projectors, several sets of Multi Image control equipment, 2 General Electric Video Projectors, 3 Video Cameras, 2 Videotex installations, Monitors, Recorders, Microphones etc. etc. ...



One of the sessions at the Direct Marketing Symposium in Montreux.



Vickers "Elements of Progress" show at the Wembley AV Exhibition.

Vickers present the elements of progress

AN unusual 30 Projector Multi Image show is to be seen in the 30th floor boardroom of Vickers PLC at their Millbank Tower, London, Headquarters. Vickers' requirement was for an impressive show that could be given on demand to visiting businessmen and government officials. The show was intended to demonstrate both the variety and the substantial nature of the Vickers group, and was to be used to precede sales and marketing presentations.

They took their problems to Greenwich based production house Prater Audio Visual. All possible media were reviewed and the Multi Image medium was chosen for the following reasons:

- The ability to be able to economically update the program was essential. The products offered by the Group, and the structure of the group are continually changing. Already the life of the original production has been greatly extended by simple updating.
- The nature of Vickers' business is immensely varied, from Luxury Motor Travel (Rolls-Royce Cars) to Healthcare, from Defence to Offshore Engineering. The Multi Image Medium is ideal for conveying the idea of strength through diversity.
- Vickers wanted to put across a "Quality" image. No other medium can do proper justice to high quality photography. By choosing an unusual screen format, and using individual images of high brightness, Vickers were able to have a show of exceptional quality and impact.
- The show needed to be available "on demand" from a single push button start. While the screen itself was to be big and impressive the whole system should occupy the smallest possible floor space. Both requirements can be met by the Multi Image Medium.

Triangular Mosaic

To best fit the Vickers Boardroom, Prater recommended a 10 screen mosaic show. The unusual feature of the show format is the use of Triangular screen sections, the triangle motif being based on the Vickers logo. To ensure maximum image quality and brightness all slides are made on Kodak 5071 46mm duplicating film and are mounted in specially moulded Wess registration mounts.

Each of the 10 screen sections is served by 3 ES4050 projectors and an ES4003 multi image controller. "Keystoning" of the projected images is eliminated by the use of Meridian 90mm Perspective Control Lenses. The show is run from a 4 track tape deck with automatic rewind. 2 tracks are used for the stereo sound track and 2 for projection control.

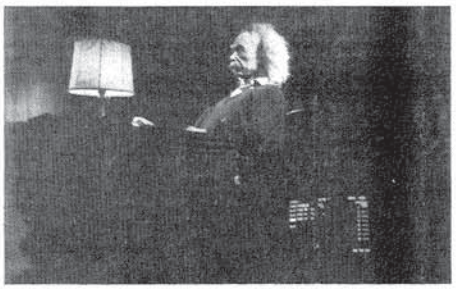
The show is run on an "Auto-present" basis. The touch of a button causes the window drapes to close, the lights to dim and show to run. While the main emphasis is on the pictorial, since it is this element that best conveys the diversity of the Group; a concisely worded script and an emotive music track sympathetically balance the whole program.

Photokina

When Electrosonic saw the Vickers Show, which now has the title "The Elements of Progress," we felt that it deserved a wider audience; both as a show in its own right and as an excellent example of what CAN be done with the medium. We were also looking for a show that could form the centrepiece of our participation at London's AV84 Exhibition.

Both Vickers and Prater Audio Visual gave us magnificent co-operation in mounting the show at Wembley, where it formed the highlight of our Exhibition in the Avon Suite. The show was run every hour (being announced by an electronic bulletin board outside the suite) and was most successful in drawing people into our Exhibit. Everyone who saw it commented favourably on how well the show conveyed the Quality of the Vickers Group.

So successful was the Wembley "outing" that Vickers enthusiastically agreed to have a German Language version of the show made. This was first used on another exhibition presentation of the show, this time continuously running on the Electrosonic stand at Photokina, Cologne, in October, 1984.



The Animated Figure of Einstein being programmed by ESCLAMP at La Villette.

EINSTEIN ON ESCLAMP

AN unusual use for our standard Multi Image Production computer program ESCLAMP is reported from Paris. Our French Distributors, Technitone, are heavily involved with the supply of control equipment to the exciting new Science Museum project at the Parc de la Villette.

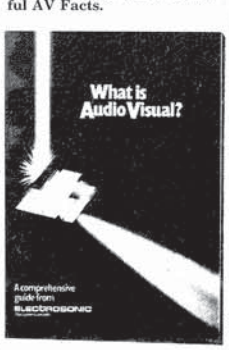
Much of the equipment being supplied is System 4000 Multi Image control equipment, some of it with special computer programs or modifications to allow interactive displays. Not all of it is being used for slide projector control. The production company Lazergraphic is using the standard ESCLAMP computer program to control an animated model of Einstein.

"On/Off" commands are programmed using auxiliary commands. Those requiring an analog output use the standard projection "Fade" commands, and the ES4003 units have been modified to give an analog output which in turn controls the servo motors that animate the figure.

In the display at La Villette Einstein receives his audience in his study and declares to them that "Dieu ne joue pas aux dés".

What is Audio Visual

AVAILABLE from all main offices and distributors of Electrosonic is this useful guide "What is Audio Visual?" It compares the different AV Media and describes how AV should be used in Selling, Training, Exhibitions, Conferences and Presentation Rooms. The Guide is extensively illustrated and includes a glossary and many tables of useful AV Facts.



Rondovision for the EEC

"THE Great Message of the Rivers of Europe" was the title of the Multi Media show that ran in the European Economic Communities Pavilion at the Lousiana World Exposition in New Orleans. The show combined multiscreen movie projection with multi image together with a most unusual system for projecting a 360 degree picture from a single slide.

The Information Directorate of the EEC appointed Professor Jaroslav Fric, head of the SCARS Team, Art Centrum, Prague, to design the audio visual content of the pavilion. We suspect that they chose Fric in the hope that he would come up with an unconventional show format, and we are sure that they were not disappointed! We (Electrosonic) were very pleased to be awarded the contract to execute the entire AV presentation as it allowed us to continue a fruitful partnership with SCARS/Art Centrum that has existed for 10 years, and which has covered unusual shows in Japan, Iran, Canada, India and the USSR.

The EXPO 84 show was given in a circular auditorium about 17m in diameter. As the houselights dimmed images of European History and Culture were seen; and these covered the full 360 degrees of the auditorium, with an image height of over 4m. The first set of images rotated round the audience clockwise, to dissolve into a new set that rotated counter clockwise. This first part of the show was accompanied by a 3 track electronic music score.

Interlocked movie

A fact well realised by Fric is that 360 degree images have an immediate impact that then palls. So after 3 minutes the show settled on a wide field of view that could comfortably be taken in from a normal face forward sitting position. The presentation was then based on 3 main image areas each 6m x 4.5m. All 3 were served by their own 35mm motion picture projector, but in addition the centre screen was served by 18 slide projectors, and the flanking screens each by 3 slide projectors.

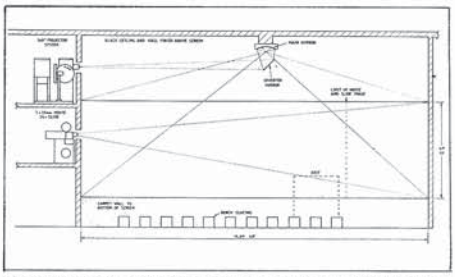
The main body of the show used specially composed orchestral and choral music with occasional items of commentary given by a filmed presenter. The theme of the show was in accordance with the overall theme of EXPO 84 itself (Fresh Water as a source of Life) and showed both how rivers have influenced the development of Europe, and the way in which they contribute to life in the present day. The juxtaposition of the movie and slide images was particularly successful, and the movie sequences were cleverly edited. Audiences certainly enjoyed it, giving a spontaneous round of applause as the houselights came up.

The production of the 15 minute show was not without its difficulties. Multi Screen Movie is a voracious consumer of original material, and Fric was most concerned that, in his words, the presentation did not become a "goulash" of unrelated images. It was intended to use as much original footage as possible, but for all sorts of reasons the EEC did not place the final production contract until February. Besides being only a few weeks from show opening time, this was not a good month to take beautiful pictures of the Rhine. Fortunately the contributing countries were able to provide sufficient high quality library material to make up the deficiency.

This was more difficult than it might sound; any material more than a few years old was useless, as was anything originated on 16mm or video. EXPO quality presentations demand the use of 35mm, and all "contributions" were delivered as copy negatives.

Show system

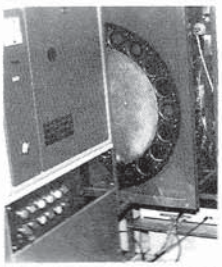
The EEC pavilion system was based on the use of Theatre standard 35mm Motion Picture projectors. 3 Ballantyne PRO 35 with 1kW Xenon Arc lamps were interlocked using standard selsyn interlock motors. In turn a tacho signal was fed from one of the projectors to synchronise a 4 track Magnatec 35mm sound reproducer. The show design required the use of 58mm objective lenses, and this was achieved using Isco Cinelux lenses with Magnacom converters.



The 360 degree projection system used in the EEC Pavilion. Section Diagram.

In order to ensure nearly continuous showings all 35mm film was carried on endless loop film handlers. These require a minimum of 3600ft of film to operate properly, so 3 copies of the show were loaded at any time.

A clock track on the sound reproducer was fed to an Apple IIE computer, and this in turn synchronised the activities of



The circular slide carriers on the 360 degree projection system.

the 24 slide projectors, the 360 degree projection system, the houselighting and the "Time to Next Show" Display. While it would have been feasible to record all the show data onto the magnetic film, the clock track method was chosen to allow final adjustments of the program to be made on site.

The slide projectors were controlled by standard Electrosonic Multi Image Controllers ES4003, and the computer program used was the standard multi image production program ESCLAMP. It had plenty of spare capacity to control the lighting, the 360 degree projection system and other auxiliary devices (for example, the dousers in the 35mm projectors).

The "Time to Next Show" Display advised people who were waiting outside the auditorium how long they had to wait to see a show. Unfortunately it was ordered at the last minute, and there was not time to build a custom display. The solution chosen was to use a 3/4 inch videotape recorded with simple "count down" graphics. The video recorder was started at the same time as the main show, and was self resetting once it reached "zero" and the doors had been opened.

360 degree projection

Of most interest was the 360 degree projection system. A single slide was all that was used to produce the 360 degree picture. The principle of operation is shown in the diagram. A 4kW Xenon Lamphouse serves a special slide carrier. This slide carrier can hold up to 20 circular slides, and the one that is being projected can be rotated when "in the gate." In fact there is provision for programming different speeds of rotation. Each slide is in the form of an annulus approximately 54mm diameter, and because of the high luminous flux, Cibachrome film is used.

There are 2 such projector assemblies working into a programmable mirror dissolve system. The chosen image is then projected using a special lens of no less than 1000mm focal length. The narrow projection beam passes to the centre of the auditorium, where it hits a small 45 degree diverter mirror that sends it up into a large computer calculated concave mirror. This mirror "spreads" the image round the auditorium. The whole system worked well, the only minor problem being the need to access the diverter mirror for occasional cleaning!

The EEC show was an entertaining show using unusual projection techniques in an economical and effective way. It was an excellent example of the EXPO genre, and it was good to see that veterans of the Expo-ShowBusiness like Fric (We first met him when he was working on the epic Czech shows at EXPO 67) are still able to deliver the goods.

Part of the Movie and Slide Projection System in the EEC Pavilion (above) and a close up of one of the endless loop film handlers (below).

THE PRESENTATION ROOM

We specialise in the technical needs of the Presentation Room. We can supply individual components or fully integrated systems. Our expertise covers Lighting Control, Audio, Video, Optical Projection, Data Display and Special Control Systems.

Presentation Room Developments

THE Presentation Room represents a major market area for Electrosonic. Our Project Engineering Division is carrying out nearly one new installation every week, and our products are now in use in thousands of such rooms round the world. We are in a good position to review trends in Presentation Room Design and Facilities.

The need for a Presentation Room is felt not only by big companies. Even quite small organizations find that they can improve communications both within the company and with outsiders. Besides this, such rooms can be time savers; either by reducing the time taken to make a sale, or complete some training; or by the more efficient use of management time — particularly in structured meetings.

One of the problems we find is that many users do not think through HOW they are going to use a room. Often we get asked to quote for a list of equipment, or asked to supply the "latest" gadget without proper consideration as to its real relevance to the job in hand. Our approach is to analyse each element of the technical facilities, and to propose the simplest technical solution that will meet the user's actual needs.

Lighting

We start with the environment. We are not architects, but enjoy working with architects and interior designers. An element that requires close co-operation is the lighting; since it provides both a decorative and functional contribution to the room. We always recommend that lighting control be thought of in terms of "scenes", with one "scene" for each use of the room, and automatic fading to ensure smooth transitions between scenes.

Microprocessors both simplify and extend the possibilities of lighting control. We have two new products of direct relevance to Presentation Room lighting; the first is MULTISCENE, a controller for 6 dimmers. It allows up to 8 scenes to be set up; each scene being any required combination of dimmer levels. Pressing a scene selection button ensures, for example, a smooth transition between the "Meetings" scene and the "Video" scene.

SCENESET is a more complex device able to store 128 scenes for up to 32 dimmers (actually up to 512 dimmers if units are ganged together). This will be suitable for the large Presentation Room, especially one making use of display lighting. Although primarily a lighting product, SCENESET has other possibilities, since it can control relays as well as dimmers, and can have timed sequences programmed into it.

Thus SCENESET is an ideal controller if you want a sequence like:

- ★ Operate window blinds.
- ★ Set lighting Scene "presentations".
- ★ Wait 10 seconds for blinds to close.
- ★ Open Screen Curtains.
- ★ Wait 3 seconds.
- ★ Set Lighting Scene "video".
- ★ Start Video recorder.

With SCENESET it is possible to use its ability to link scenes automatically to achieve such a sequence from a single button press. This can make user control panels much simpler and less intimidating. On site programming capability means that if, at a later date, the method of using the room changes, scenes and sequences can be easily changed.

Audio

Simplicity of use extends also to audio. Even quite small rooms need speech reinforcement, especially when furnished in absorbent materials. Most rooms also need "show sound" from AV equipment. Putting in sophisticated sound equipment can be counterproductive if there is nobody to operate it, so the aim must be to put in a system that is fully automatic in operation. The features that are needed are as follows:

- ★ Automatic switching of microphones.
- ★ Automatic selection of sound source when AV shows are run.
- ★ Remote volume control of show sound, with automatic reset to designed level after show reset.

Such features seem simple, but in fact require technically sophisticated equipment to achieve. Electrosonic's new ES1280 modular mixer is particularly suitable for presentation room work.

Optical Projection

Some video proponents would claim that optical projection is no longer required; but in fact the use of slides in particular continues to increase. Certainly for any quality presentation requiring large images, optical projection remains the best and most cost effective option.

As far as slide projection is concerned the first priority is to have an easy to use method of showing simple slide sequences as speaker support. Some users also need a Random Access facility. If automatic slide/sound or multi image shows are to be run, these must be on suitable "Auto-present" equipment, with only a single button needing to be pressed to run all aspects of the show.

Electrosonic have a complete range of products for these applications.

When it comes to moving images our recommendation is usually that, for the smaller presentation room, video projection is used. However, if you are in the position of actually commissioning movie films to be made in 16mm or 35mm, they will have much greater impact if shown in their original format — so in this case, and in all large presentation rooms, proper movie projection should be installed.

Video

Nearly every corporate presentation room we do has a video facility. At its simplest a video recorder with one or two monitors, at its most complex video projection with multiple input sources.

Video projection remains, and looks like remaining for some time, a compromise. The affordable video projectors most used in presentation rooms have limited light output (about 400 lumens) and are only suitable for small images, typically 1.5m (5ft) in a lighted room or 2.5m (8ft) in a darkened room.

Some interesting points have emerged in recent installations:

- ★ A common requirement to connect to computers for data display. This often requires special modifications to the projector or monitor, since many computers require a non standard scanning rate.
- ★ The low cost of video discs, and the fact that these can now be made in a matter of days, introduces the possibility of rapid random access video displays.
- ★ The idea of the "Video Overhead" projector, that allows the showing of standard OHP transparencies or even 3 dimensional objects on the video screen. Expensive for what it is, but appreciated for its convenience.

This latter point introduces the problem of what is the best method for quickly producing graphic material for presentations.

Making graphics

Modern Presentation Rooms being used for management meetings can have an almost insatiable demand for graphic material, that may be required on a daily or weekly basis. There is now a bewildering choice of methods, and it is only possible to give advice on the best method when an individual user's exact circumstances are known. Often a theoretically best method is not practical because of the lack of staff to operate it.

What is certain is that the majority of business graphics used in presentation rooms will soon be being made on computer. The following possibilities exist:

- ★ Get your graphics created by a fully equipped studio able to create high definition slides, usually using a computer slide creation system. This will give you the best results. The price is reasonable and your showing equipment can be as simple as a single slide projector.
- ★ Create your own graphics on an in house computer, and show directly on video screen. This gives nowhere near the quality of slides, but is acceptable for some "one time" applications. The whole show equipment package gets expensive if you need to show a sequence of images with a quick change between each.
- ★ Create your own graphics on an in house computer, and convert to slide on an in house graphics camera. This greatly improves the quality and simplifies the presentation of the sequence; although, if you buy a reasonable cost system the quality cannot be as good as the best high definition bureau service.

Electrosonic are able to help with advice or the supply of equipment in respect of all the above possibilities. In particular we expect the last option to become popular as equipment prices drop and performance improves. The situation is further helped by the advent of instant slide film.

Furniture

In all our enthusiasm for "High Tech" it is easy to forget the simple things. We are developing standard "screen walls" (normally made on a custom basis) to simplify the integration of AV facilities in to a room, and already have several standard designs of lectern. This helps those customers who cannot justify expenditure on custom designed and built furniture.

As mentioned before, we try and keep control panels simple. Many rooms that we instal use infra red remote control of facilities. This can greatly simplify wiring. (See story on opposite page).

The Bell Canada Presentation Room in Toronto. The lower picture shows the special control panel.

BELL CANADA

BELL Canada use formal presentations as the basis of top level selling. Recently their Toronto office moved into a new building, and the opportunity was taken to update all presentation facilities.

Our Canadian Associate, Multivision Electrosonic Ltd, supplied infra red remote control systems for a suite of 4 training rooms, and also the Multi Image and main control system for the main Presentation Room. This allows all room facilities to be either controlled from the SYSTEM 4000 programming system (either from tape or computer) or from a special control panel.

The control panel was built to Bell's specification and included a special "pre-select then go" feature. The microprocessor control system, all relay and contactor racks, and the dimming system were all manufactured by Electrosonic. A reduced facility control panel was also supplied for the lectern.

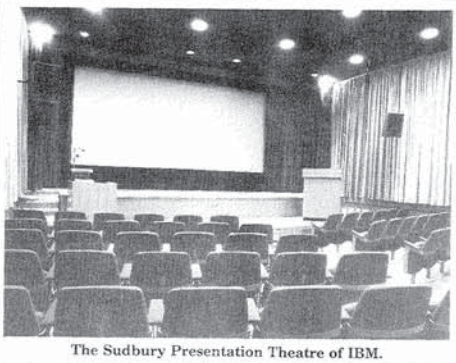
Presentation rooms can be of two kinds. Those that require an operator and those that are intended to work only with the participants present. The majority of the 'Bell' presentations are operator assisted, since each presentation is tailored to the individual audience need, and may even "change direction" as a result of the audience response. However, the room and simple projection facilities can be set for use without an operator when required.

BRITISH AEROSPACE

THE Presentation Room at British Aerospace in Bristol is comprehensively equipped. Facilities include a wide screen for side by side comparison with motorised drapes that mask to the required format; video projection; an APOLLO Auto-present system; Random Access Slide Projection and a complete sound system.

In the projection room there is a master control panel for all room facilities, and this is repeated on the lectern. Lighting control is by ES6090 dimmers. The entire system was engineered and installed by Electrosonic Ltd's Project Engineering Division.

The British Aerospace Presentation Room. Courtesy Bristol Division of the British Aerospace Dynamics Group.



The Sudbury Presentation Theatre of IBM.

IBM

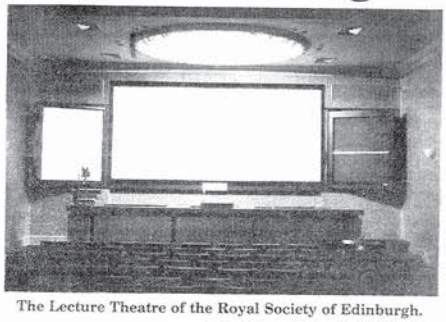
THE IBM Presentation Theatre at Sudbury is equipped by Electrosonic with Audio, Video, Cine, Lighting Control and Slide facilities. The Electrosonic lectern can be plugged into one of two sockets, and the overhead lectern spotlights are automatically selected according to lectern position.

All main facilities, Video, Cine and Slide have automatic sequence control, so that their selection by a single button press results in the correct lighting level and screen format, as well as starting the equipment concerned. Stopping the equipment restores the room to its previous state.

Royal Society of Edinburgh

NOT all the Presentation Rooms we do are in offices. We are also concerned with "traditional" lecture theatres. The Royal Society of Edinburgh occupy an historic building which has recently been refurbished. The lecture theatre is now equipped with a comprehensive teaching wall, with slide, cine, video and overhead projection facilities.

Lighting control, speech reinforcement, AV Showsound and conference recording facilities are also included. Avtech Services Scotland Ltd. were in charge of the installation. All specialist equipment was by Electrosonic. The building was opened by HM the Queen in June 1983.



The Lecture Theatre of the Royal Society of Edinburgh.

ELECTROSONIC WORLD

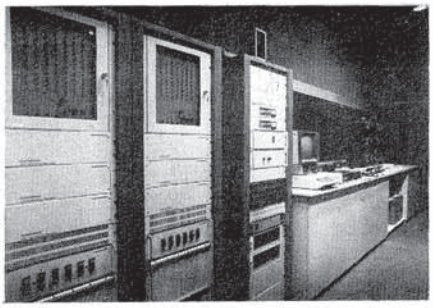
Premier

THE Premier Group is one of the top ten companies in South Africa. It has recently built a new headquarters building in Johannesburg, and both the auditorium and Chairman's Boardroom have Electrosonic installations.

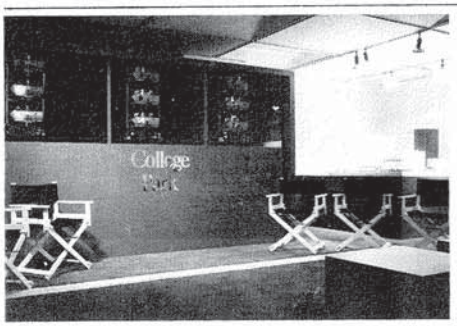
The work was carried out by Twin Imports, Electrosonic's Distributor in South Africa. The Presentation Auditorium installation includes multi scene preset lighting control, speech reinforcement, show audio, controls for curtains, screens etc. and a 6 projector multi image system with ES4603.

The Chairman's Boardroom includes a dual random access slide projection system and infra red control of lighting, blinds, screen and an APOLLO autopresent system.

Twin Imports have completed several important Boardroom and Presentation Room installations, and are working on many more. Completed installations include the Presentation Room of Hunt, Leuchars and Hebburn (HLH Group); the main boardrooms of Barclays Bank, Prestasie Brokers and Cullinan Holdings; and the Training Room of the Plate Glass Group.



The Projection Room at Premier Group Head Office. Electrosonic Lighting and Control Racks.



The Information Room at College Park.

College Park

MULTI Image makes a persuasive sales method for real estate. It is also cost effective, since shows can be kept up to date at low cost. A.E. LePage, Canada's largest real estate company are using it to promote College Park, a large development in downtown Toronto, that includes 350,000 sq ft of office space, plus retail shopping and residential accommodation.

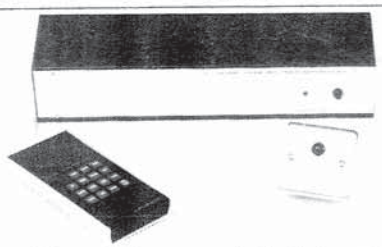
Cineverse of Toronto made the show which was first used at A.E. LePage's head office. Recently our Canadian Associate, Multivision Electrosonic, moved the complete 9 projector/ES4603 Autopresent system to the 30th floor Information Centre at College Park.

Infra red

SEVERAL items in this issue of ELECTROSONIC WORLD make reference to the use of infra red remote controllers for Presentation Room facilities. Electrosonic have a standard range of subassemblies that allow systems of varying complexity to be supplied.

All are characterised by long range operation and freedom from either generating or suffering from interference. In principle the overall system works in modular blocks of 15 functions being controlled, with up to 90 functions being possible in one room. In general, however, we discourage panels with too many buttons on them, since it can be better to link a smaller system to a SCENESET or similar device to carry out sequence commands automatically.

Until recently these systems have only been offered as part of our Projects work. Control panels have usually been customised to exactly match the room in which they are to work — both in function and appearance. However we are now offering some standard units for use by other installers. The range consists of a remote Receiver Head with preamplifier, suitable for ceiling mounting; a rack mounted 15 Channel Receiver Decoder with low voltage output relays; and a neat hand held Transmitter unit.



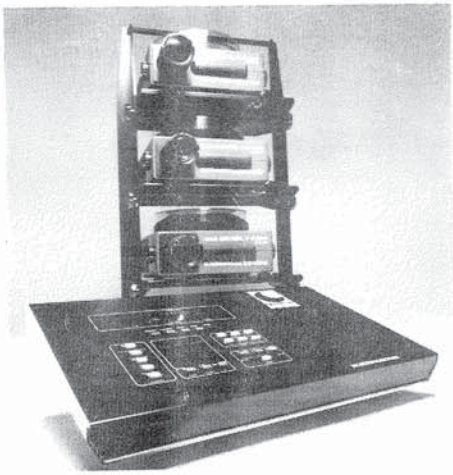
Some of the standard components in the Electrosonic Infra Red Control System for Presentation Rooms.

Saturn for easy programming

SATURN is a Programmable Dissolve Unit for making small scale Multi Image shows. As a Dissolve Unit it can control 3 projectors, but as a programmer it can make 6 projector shows. These can be run by, for example, linking an APOLLO to SATURN.

SATURN gives most of the benefits of computer programming and is appreciated by in-house producers and even amateur photographers. Sometimes one becomes the other, as in the case of Clive Tanner. He is an AV enthusiast who pursues his interest through Tonbridge Camera Club. However when his employer, Robert Stace and Co. Colour Printers and Packaging Manufacturers, wanted a show Clive was commissioned to make it.

He looked round the market, decided SATURN was for him, collected a unit off the Electrosonic stand at the AV84 Exhibition, and after 7 days, working only in the evenings and at the weekend, had his first fast moving 200 slide 3 projector show. (With some help on the sound recording from Electrosonic Dealer AV Machines Ltd).



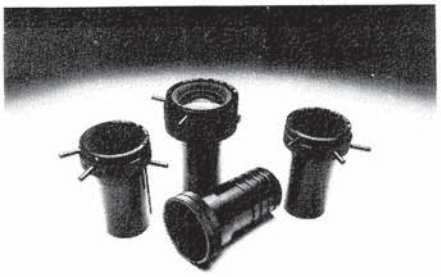
The SATURN Programmable Dissolve Unit.

Clive commented that "the instruction manual, clearly laid out controls and ease of operation made programming easy for the first time user." His firm have already commissioned him to make another show.

No keystoning with Meridian lenses

ONE of the big problems of Multi Image projection is that of keystone distortion of the projected image. Obviously if 2, 3 or more projectors are all directed at the same screen only one of them can be perfectly lined up, and the others must be to some extent "tilted" to reach the same screen area.

The imperfectly aligned projectors give a slightly distorted image with a "keystone" shape. The distortion is particularly noticeable in shows using successive reveal graphics, where each succeeding image should be in perfect register; and in shows using soft edge masking techniques to show panorama images. The problem is less severe when long focal length lenses are used (since the deviation from the optimum axis of projection is then small) but is particularly noticeable when lenses of 100mm or less focal length are required.



The MERIDIAN Range of Perspective Control Lenses.

Perspective control

The theoretical solution to the problem has now become the practical one. Suppose you have a stack of 3 projectors. Then in theory you can place the centre projector in a position where it projects normally (i.e. at a right angle) to the screen, and thus projects a perfectly rectilinear image. Now the problem is, how do you get the projectors above and below the "perfect projector" to also project normally?

If it were possible to lower the axis of projection of the upper projector, and raise that of the lower projector, then the problem would be overcome. The idea is similar to the way in which technical cameras allow distortion to be corrected when taking a picture. Such an arrangement is quite practical and is achieved by the technique of "Perspective Control".

A Perspective Control Lens allows the axis of projection to be changed. It is achieved by having a double eccentric movement within the lens barrel that allows the axis of projection to be adjusted from central to 3.8mm off centre in any direction. The reason for needing the continuous adjustment is that the actual offset required will depend on the projection distance and on the projector spacing.

The Meridian range of Slide Projection lenses includes 3 perspective control lenses, with focal lengths of 45mm, 60mm and 90mm. They are specially suitable for permanently installed Multi Image shows, and in compact Boardroom rear projection installations. The crucial point to remember when using these lenses is that all the projectors must be LEVEL. The best thing to do is to set each projector horizontal using a spirit level (assuming, of course, a vertical screen) and then use the perspective control adjustment on the lens to position the picture. i.e. you should NOT use the projector foot or projector stand adjustments.

Any tilting of the projectors simply re-introduces some distortion.

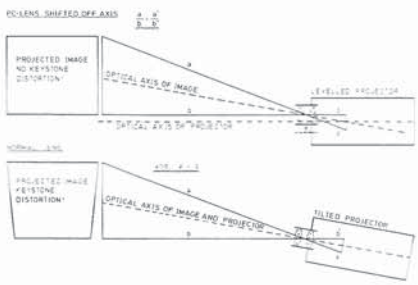
Extra offset

A little mathematics involving the comparing of the offset available and its relationship to the actual slide aperture will show you that there is a minimum picture size for the system to work. For example if you again consider the "stack of 3" and allow enough clearance to change slide trays, the smallest picture size you can have with no keystone distortion is 1.5m x 1.2m (6ft x 4ft). By chance this is the size usually wanted in conference and boardrooms so there is not usually a problem.

However to meet the needs of the smaller screen, and for other tricky situations maybe involving more than 3 projectors, Electrosonic also offer a Meridian 60mm lens with a 5.5mm offset. This only has a single eccentric movement, so its use requires the precise calculation of projector positioning. It is suitable for use with screens down to 90cm x 60cm (3ft x 2ft) and is, for example, used in the ES470L Exhibition Rear Projection Cabinet.

The long and short

A full colour leaflet is available giving full details of the complete line of MERIDIAN objective lenses. They are a carefully chosen range of the highest optical quality and closely matched performance. The fixed focal length lenses are available in ten focal lengths in the range 25mm through 400mm. Three outstanding zoom lenses, all in metal barrels with zoom locks, cover the range 70mm through 300mm.

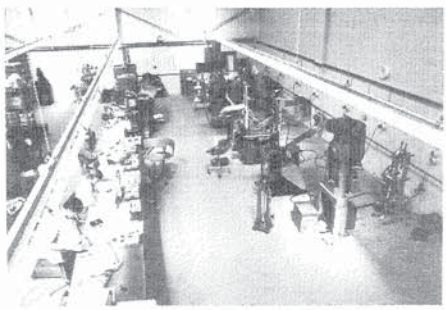


The Principle of Perspective Control.

Perrotcolor slide mounts

EARLY in 1984 Electrosonic Ltd purchased the stock and specialist machinery for Perrotcolor slide mounts from the Swiss company Maweba-Perrot, who were ceasing trading in this line of business.

Because of the difficulty of moving and resetting up the machinery, and the need to source appropriate raw materials, we were not able to get into full production until September 1984. The initial examination of the Perrot plant was undertaken by Electrosonic Director Denis Naisbitt, and its subsequent resetting up was supervised by Production Director Peter Way.



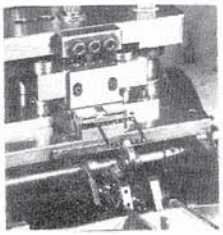
The new Perrotcolor Factory at Maidstone (above); A Perrotcolor AV Mask coming off the high speed press (below); the Aluminium Dust Proof Perrotcolor Slide Mount (bottom).

Exceptional

The Aluminium Perrotcolor Slidemount has long been recognised as being of exceptional quality. The use of a locking clamp ensures that the sealed mount is dust free and cannot possibly come apart in use. The mount is available in 5cm x 5cm for both 35mm and superslides, in 7cm x 7cm for 54mm slides and in 83mm x 83mm for Idealformat slides. The 35mm mount is also available in an "ultra thin" version. Mounts are normally supplied with 100% ANR glass, although to special order large quantities can be supplied with 50% or 100% plain glass.

An accessory product, which is suitable for use in most makes of slidemount, is a range of precision aluminium masks. These are supplied in boxes of 50, and there are at present 33 different ones to choose from for 35mm slides.

The standard range of Perrotcolor products is of most interest to professional slide users with slide archives, such as museums, medical schools, universities and professional photographers. It is also favoured by top amateurs and by certain Audio Visual users. We see the Perrotcolor range as being complementary to other mounts on the market, and are concentrating our selling on those areas where it represents the best mount for the job. Some new Perrotcolor products are to be introduced during 1985.



New factory

We are manufacturing the Perrotcolor range in a new factory unit, specially set up for the job, in Maidstone. It is near our Electrocue Ltd. Manufacturing Plant.

ELECTROSONIC WORLD

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 these pages we report on just a few of our recent installations.

COMPUTERISED TUNNEL LIGHTING CONTROL

ELECTROSONIC have recently designed, manufactured and installed a new lighting control system for the Queensway Tunnel under the River Mersey (The "first" Mersey Tunnel). The whole system was built to the specification of the Merseyside County Council's Engineers' Department.

The principle of the system is that it provides direct control of the fluorescent lighting that runs the full length of the tunnel, and of the sodium boost lighting at the tunnel entrances. The lighting is monitored at 24 points in the tunnel, to ensure that it is appropriate for the present outside conditions, and to ensure that lighting levels are maintained even if some fittings are dirty or not working.

Further the system continuously monitors the energy being used, and ensures that all the fluorescent lamps operate on the same duty cycle.

This is important, since if a 3 tube fitting is being used, with 1, 2 or 3 tubes being switched on according to outside conditions, a simple switching system would cause the first tube to be on all the time, and others only part of the time. This is uneconomic. The Mersey system ensures that all tubes are used equally, so that when the expensive task of replacement is undertaken, it is done so with the knowledge that all tubes have reached the end of their economic life.

Self Calibration

What did Electrosonic supply? In hardware terms 36 electrical cubicles each fitted with a mass of circuit breakers, contactors and control equipment; 24 Microprocessor monitor units with self calibrating photo cells, and an IBM Personal Computer.

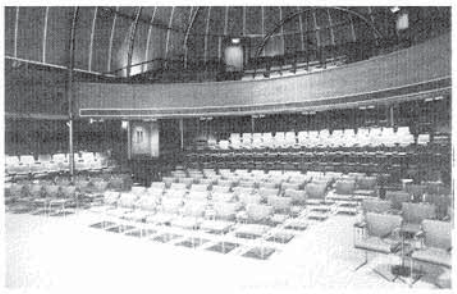
In Software terms some pretty nifty software to enable the computer to keep track of everything happening and to issue the necessary orders. In sweat terms an awful lot of commissioning and installation work — setting up a system in a traffic carrying road tunnel is *not* easy!

One specially developed product for this system was the self calibrating photo sensor. This was an essential component, since any monitoring of light levels had to be independent of any dirt getting into the sensor window. The sensors were able to operate on a serial communication system sharing the same cable.

The system was supplied under sub contract to J&F Nelson Ltd. of Liverpool who were the main electrical contractors for the tunnel refurbishment.

Adjusting one of the Self Calibrating Photo Sensors in the Queensway Tunnel.

ANUGRAHA



The Upper Hall at Anugraha.

WHO or what is Anugraha?

The word is Sanskrit for "An unexpected gift, a New Kind of Place", and is the apt name for the recently opened conference centre near Egham in Surrey, England.

Anugraha is set in 22 acres of parkland, and is a conversion of a fine old country house. The existing main features of the house, its facades and gables have been retained; but its central courtyard has been transformed to form the main domed hall of the conference centre.

The Great Hall can seat up to 850 delegates for events. However a rising floor can divide the space into two; and in this case the Upper Hall can accommodate up to 500 people theatre style for conferences, while the Lower Hall becomes a fully serviced banqueting suite. Alternatively the Lower Hall can be subdivided to create a variety of spaces for groups 10 to 150.

Custom Control

Conference centres need push button automatic lighting control. One of the problems of centres that can be divided up in many ways is ensuring that the lighting control makes sense; and that whenever you are in a particular area, you have local control that only affects the area that you are in.

Electrosonic supplied Anugraha with an ES6090 based dimmer system for the Great Hall and Banqueting Areas. A custom built control panel allows all lighting to be controlled from the main control room, and local control panels allow control of individual areas. An automatic control routing system ensures that the correct grouping of control is achieved, depending on the position of the rising floor and the position of the banqueting suite partitions.

The "New Kind of Place" deserved, and got, the best of lighting control. If you want to hold your next conference there, Telex 928116 ANUGRA G.

Multiscene Afloat

THE new Electrosonic MULTISCENE system of lighting control has been installed in the public areas of the 45,000 Ton Cruise Liner "Royal Princess". This $150 Million ship is the most expensive passenger liner ever built for a British Shipping Company, and becomes the flagship of the P&O Fleet (in succession to "Canberra").

"Royal Princess" was built by the Wartsila Shipyard in Helsinki; they are experts in building cruise liners, "Royal Princess" was their 14th! A picture of the ship is shown on page 8.

Wartsila and P&O chose MULTISCENE for the Restaurant, Show Lounge, Night Club and Disco/Observation Lounge. This allows simple push button selection of preset lighting scenes; and in this case a total of 51 5kW dimmers are being used in the four areas.

NEMKO

The ship's generators provide a 220V delta 3 phase supply. So all dimmers supplied to "Royal Princess" are a special version of the ES6090 series that has been approved by NEMKO (The Norwegian Electrical Standards Authority) for use on such supplies. Each dimmer is fed from across two phases via a double pole MCB that gives both dimmer and circuit protection.

Electrosonic dimmers are used in other areas of the ship. The lighting in the Cinema and Conference Area is under standard ES6090 push button control with 3 lighting levels and off; and the Casino lighting is provided with push button control for full lighting and one preset.

All the dimmers used for the Show Lighting in the Night Club and Show Lounge are also the plug-in ES6090 units; but here the control desks are Zero 88 units able to give programmable effects sequences. A 24 channel system is installed in the Night Club, and a 36 channel system in the Show Lounge. In each case Electrosonic provided a simple remote control panel to recall six memorised lighting states, so that events requiring uncomplicated lighting could be run without the need for a skilled operator.

The Lighting Control Systems were delivered factory wired to meet the requirements of the British Department of Transport, Lloyds Register rules, IEE Regulations for Ships and IEC and IMCO recommendations. The installation was carried out by Wartsila, to comprehensive installation drawings provided by Electrosonic; and the final commissioning by Electrosonic in conjunction with newly appointed Finnish Lighting Control Distributors, MS-Audioton.

Mandarin Hotel

THE Mandarin Hotel in Hong Kong has been rated among the World's ten best hotels for the past two decades. Naturally it uses Electrosonic lighting control.

In a recent refurbishment ES6090 Automatic Dimmers were installed in the Lobby, The Clipper Lounge, The Grill Room, The Coffee Shop and the Captain's Bar. Local liaison was through our Hong Kong distributor, Avcom Ltd.

The Grill Room at the Mandarin Hotel.

House of Lords

ELECTROSONIC have supplied a new lighting control system to Great Britain's higher legislative assembly, The House of Lords.

The new system was designed in conjunction with the Property Services Agency Parliamentary Works Office, and is installed in the Lords Chamber of the Houses of Parliament. The dimming system is used on special occasions such as the State Opening of Parliament, and is based on ES6090 Plug-In Dimmers.

The equipment supplied is a full distribution system for all the lighting in the Chamber. A dual system is installed, such that a secondary control system automatically takes over in the unlikely event of failure of the primary system.

An unusual feature is that the dimming racks are finished to BS Crimson — an official colour of the House of Lords.

Party in a tunnel

Here MIKE RAY tells the story of the commissioning of the Mersey Tunnel Lighting Control System, and of the unlikely party that followed it.

The Electrosonic commissioning engineers have been hard at it since 8 a.m. this morning. Mark is working on the IBM PC program, Mike is sorting out a problem with one of the microprocessors deep in the tunnel. Up on the roof Des is using an APPLE computer to read the photocells which we have fitted at each end of the tunnel.

It is an overcast day, so the light is uniform and he can use the light meter he has placed on the roof beside him to calibrate the cells. The Liverpool end of the tunnel is only half a mile away; standing up, Des can see the other ventilating tower some mile and a half away on the other side of the river, it is harder to make out the tunnel entrance on the Birkenhead side as it is over two miles away.

Still, readings taken via the computer show that the two ends match each other very well in overcast conditions, so most of the calibration work can be carried out from here.

During the refurbishing of the tunnel it is closed each night, so that work carried out during the day can be tested at night. Mark has finished matching the communications side of his IBM program to the signals from our distant microprocessors so it is time to get ready for a "live" test. The first place to visit is the "Low Level interface;" or unit which controls the fluorescent lighting throughout the almost 3 miles of tunnel.

Airlocks

Pete sets off to switch the interface to Auto, so that it is on-line to the computer. Down lifts and corridors to a large iron airlock door which has big handles with dogs like a submarine hatch. Through another one and he is in a huge machinery hall. A 28ft (9m) fan case towers above him — this is only one of the five intake fans in this building alone!

Through another airlock and down an old lift; here he can hear the sound of the traffic as he uses the phone to warn the Control Room that he is going further down and will need the lights on in sections 3 and 1. He opens the sliding doors and, even though expecting it, the rush of air surprises him. The rounded rock passage is dimly lit and reminds one of visiting a cavern. At the bottom he comes out into a large curved passage, along which a permanent gale of artificial wind makes him lean forward to keep his footing.

Only a short way now, and he comes to a small cabinet mounted on the cable trunking. He is directly under the main tunnel and the traffic thunders overhead. Inside the cabinet are two of the 24 microprocessors we have fitted in the tunnel and he can see from the signal light that the IBM is talking to one of them. He checks that the command for the fluorescent lights is OK before he switches to Auto — with two way traffic driving in the tunnel, plunging the tunnel into darkness could cause a serious accident.

Later, when the tunnel is closed to traffic, Pete uses his car to visit the other two main control centres which are situated one at each end of the tunnel. He goes down a vertical ladder in a manhole at the side of the tunnel, through a small pump room — where Mike once found a tramp hoping to spend the night! — and into the invert under the roadway. The four cabinets which control the boost lighting are mounted here. The microprocessors not only control the 18 circuits but also measure the current in each phase of each circuit. When the equipment has been put into Auto, Pete gets back into his car and repeats the operation at the far end.

Hydraulic Platform

Meanwhile Des has borrowed an hydraulic platform from the main contractor so that he can align the 20 photo-sensors which are mounted some 24ft (7m) up the tunnel walls. They each contain a microprocessor and can pass their measurements back to the IBM. During the operation the prop shaft falls off the vehicle, so Des has to make a hurried descent, or he might find himself jammed against the tunnel wall. He always travels with a vast array of tools and soon has the shaft bolted back again!

The fact that the items are dotted about in the tunnel makes the commissioning task much harder. In addition to installing the photo-sensors, and the 24 microprocessor units, Des has wired up the 36 contactor boxes for fluorescent control. Six of these are in a branch tunnel, and, under there, it is too low to stand.

Party time

"Opening Day" arrives and we go to meet Yvonne who has come up with the publicity material . . . Soon the old Rendle Street Arm of the Tunnel is jammed with a line of vehicles waiting for the police to close the tunnel for one way working. At last the convoy moves forward; there are company cars with lighting fitting and cable representatives, a mobile canteen, two old double decker buses used by the electrical contractor, the little red van with the scaffold tower on its roof, Mike's car with a demonstration IBM, Yvonne with our publicity stuff, a mobile bar, and much else. The whole convoy drives under police escort to the Liverpool end which has been specially cleaned up for the occasion.

The convoy stops and we all begin to set up our stands and arrange our publicity material and posters. Our Demonstration IBM PC is set up on a loaned table alongside our leaflets. We draw power from a fire point. It is a bit unnerving that only a spare lane and a line of cones protect us from the motorists who are still using one lane and are amazed at the goings on!

The boost lighting is out and our fluorescents are only half on. The traffic in our section stops, although it is still noisy as traffic is using the Georges Dock Branch. The Press, County Council Lighting Team, Cable Suppliers, Lighting Fitting Manufacturers, Electrical Contractor, Steel Suppliers and Electrosonic, together with the invited guests gather for the opening ceremony. We smile at the thought of closing a tunnel in order to open it, and turning the lights low in order to have an official turn on.

After short speeches, the button is pressed.

Disappointment follows. Someone should have told the guests that the fluorescent lights have switch on delay timers and that the high pressure sodium boost lighting takes several minutes to warm up. However in ten minutes all is forgiven and the staggering power of the boost lighting is warming the tops of our heads. There is lots to eat and drink and the new lighting is well and truly "Switched On."

Certainly it is one of the strangest, and longest, jobs that Electrosonic has had to do; and we won't forget the "long thin party" in a hurry!

Exhibition in a Tunnel. From left to right, Yvonne Hegarty and Mike Ray of Electrosonic. Mr. R. J. Williams, Merseyside County Engineer and Councillor Ben Shaw, Chairman of the Council.

SETTING THE SCENE WITH LIGHT

Electrosonic's new DIGIDIM range of lighting controls brings a new flexibility to architectural and entertainment lighting control. To understand why, we explain here the concept of SCENESET.

The introduction of dimmers into an architectural lighting scheme is done for three reasons; functional, aesthetic and economic. Economic, sometimes for energy saving reasons, but more usually because of reduced running costs resulting from extended lamp life and less maintenance. Functional, for example in a lecture theatre there is the need for different lighting levels for different activities. Aesthetic, because the correct balance and adjustment of lighting levels achieves the ambience that the Lighting Designer, Architect and User are striving for.

We have always argued strongly against manually operated dimmers in architectural schemes. The whole idea of our first product 20 years ago, the push button operated thyristor dimmer, was that dimmers could be operated from many different places, and that the result of operating them would always be the same, both in terms of the lighting levels achieved and the speed at which the changes were made. Thus if the lighting level changed in a restaurant, it would always do so at an acceptable (or even imperceptible!) speed, and would always change to a designed level, rather than the one that the Maitre d' happened to fancy that day.

The compact SCENESET Unit can store 128 Lighting Scenes for 12, 24 or 32 dimmers.

This is the point. The USERS of lighting control systems are not technicians, nor are they familiar with the practice of stage lighting. But this is no reason why they should not be able to get the best out of a lighting system.

Think of the user

Our automatic dimmers have provided, and continue to provide, the answer for most applications involving only a few dimmers. Problems arise when many dimmers are required. Here it becomes impractical to have separate user controls for each dimmer — so we ask the question "What is the area to be used for?"

For example a hotel restaurant can only require different lighting settings for different times of day. Thus whether it uses 1, 5 or 50 dimmers the "Lighting Scenes" that are applicable are as simple as "Breakfast", "Lunch" and "Dinner". Variations might include "Early Evening", "Cleaners" and "Security Level".

Similarly a Presentation Room can only be used for such things as "Meetings", "Presentations", "Video" etc. For each USE there is a SCENE; and the SCENE includes both the final lighting levels required and the dimmer speeds that are appropriate to achieving them. Thus when you go into a Presentation room you want the lights to come on quickly, so the lighting control panel at the door might achieve the "Meetings" setting on a 1 second fade. On the other hand when you show the Company AV Show, you will want the lights to fade down smoothly, maybe using a 10 second fade, so the show system selects its scenes in a proper show manner.

Scene setting

In the past we have achieved "Scenesetting" in two ways. We have either used automatic dimmers with either a hard wired or pin patch diode matrix; or we have used analog dimmers with a multi scene preset facility. Both worked well, but suffered from some specific disadvantages.

In the case of the automatic dimmer there could be some lack of flexibility due to the limited number of rates and levels available on a dimmer module, but more seriously the settings were on the module. This could mean that if a service exchange was made, the new module might have the wrong settings.

The problem with the multi-scene preset panel was one of cost and size. Some hotel systems might need the control of 60 dimmers in a single system with 10 scenes. This would mean 600 presetting potentiometers; so while such systems work well, they are rather large (see photo on right below).

There may well be jobs that will continue to be best done by the "traditional" methods, and the new range of dimmers will still permit this. However we expect most peoples needs to be met by two new products.

Multiscene

The first is MULTISCENE. This is a compact plug in module that matches the dimmers. It is intended for the smaller installation using up to 6 dimmers; and provides for setting up 8 different lighting scenes. Each scene may be selected to be achieved at a choice of two preset speeds. All "Programming" of the MULTISCENE module is done from the associated push button panel; however this panel is normally only used for scene selection, its programming capability, of relevance only to the Designer or User at the set up stage, can only be enabled by the use of a "secret" switch that is operated through a pin hole on the front panel.

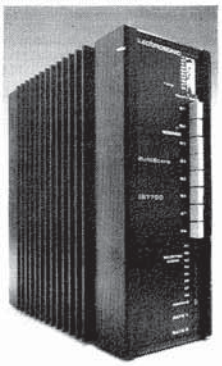
Sceneset

We expect MULTISCENE to be widely used in Presentation Rooms, small restaurants, offices and lecture theatres. Its big brother is SCENESET. This is a compact rack mounting unit able to control 12, 24 or 32 dimmers. It can store 128 scenes. Furthermore SCENESETS can be ganged together, so that one control system can control 512 dimmers. The SCENESET is sited next to the dimmers, and remote from it are the user control panels called SCENESELECTORS.

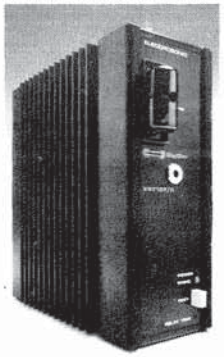
All remote SCENESELECTOR panels can be linked together by a simple 4 wire cable, and up to 24 panels can be connected. At any SCENESELECTOR position it is possible for the Lighting Designer to program the system. This is done with the neat hand held SCENEMAKER; which allows each scene to specify that any dimmer can achieve any selected level, and that the scene is achieved at any reasonable fade rate. Scenes can be "linked" wherever a "cascade" or multiple rate change is required.

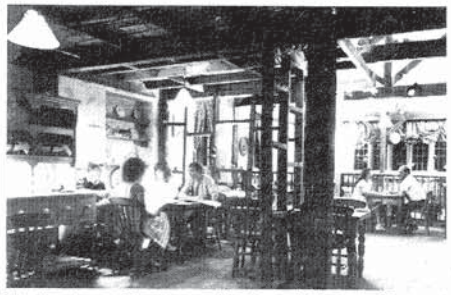
SCENESET will work with any dimmer requiring an analog input, so is suitable for retrofitting into existing installations, and will work with both ES6090 analog dimmers and the MAN-DIM modules of the new range. It can also give a purely digital output, corresponding to actual thyristor firing information; and this is used when the DIGIDIM modules are specified. The advantage of the pure digital system is that there is the greatest possible consistency between units, and no "trims".

SCENESET is already in use in several interesting installations. We expect it to be THE choice for Hotel Public Area Lighting, Banqueting Suites, Conference Facilities, Large Offices, Exhibition Galleries, Hospitals and Automatic Public Entertainment Applications.



The MULTISCENE module (left) is for small installations using up to 6 dimmers. The DIGIDIM module (right) brings the option of all digital dimming control.



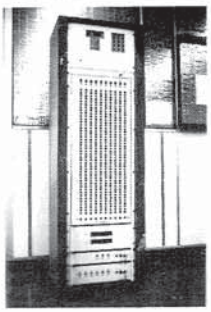


The New Inn at Hayes, owned by Imperial Inns and Taverns, uses SCENESET Lighting Control.

Scenes in Kent and Far East

RATCLIFFE Stott Associates had the task of designing the conversion of the New Inn, Hayes, in Kent from a large pub into a "Harvester Steak House". This required the creation of a Bar Area, Reception/Waiting Area and a 110 seat Restaurant.

False ceilings and multiple levels are used throughout with "haylofts" and other detail to support the "Harvester" theme.



A typical Multi Scene Preset Control unit. In many applications this could now be replaced by SCENESET.

Vertical interest and drama are provided by a Victorian Windmill shaft and gear, which rises from the cellar floor, through the ground floor bar, and up through the central void to the restaurant roof.

Lighting plays an important part in creating atmosphere. Intimate light levels in the bar and restaurant areas contrast with the highlights on the mill, display grill and salad cart areas. Seventeen dimmers are used, all controlled by one SCENESET. The main lighting scenes are "Lunch", "Early Evening", "Late Evening" and "Cleaners". Five circuits are used on the mill with a very slow cycling effect that adds an unobtrusive dynamic to the display.

Far East

Consistent users of large dimming systems are the hotel groups, and the hotel building boom in the Far East has seen many Electrosonic dimming systems, using manual, automatic and multi-scene preset systems. Prominent among the latter are the Meridien Hotel, Orchard Road with a 43 channel 10 scene system for the atrium lobby and restaurant, the Nikko Hotel with a 72 channel 12 scene system for the lobby, restaurant and coffee shop, both in Singapore; and the Bangkok Peninsular Hotel which has a 12 scene system.

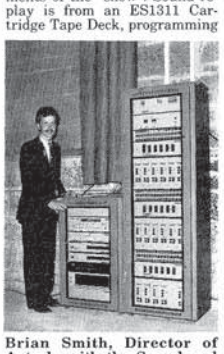
The latest installations use SCENESET. These include the architectural lighting system in the Singapore Hilton International, and the Peacock Restaurant in the Singapore Shangri La Hotel. Applications are not limited to hotels, however; the Sentosa Wax Museum and the Parkway Parade Fountains, also in Singapore, use SCENESET for both dynamic and static lighting control. Our Lighting activities are well supported in Singapore by our local Lighting Distributors, Messrs IRC Private Ltd.

Sound and light at Bannockburn

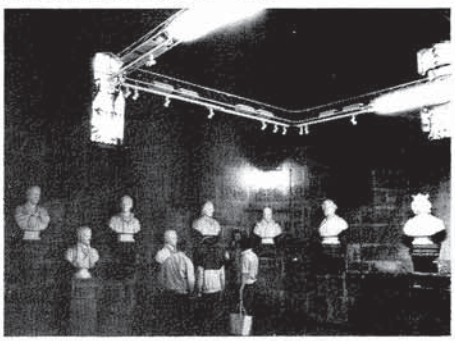
IN the ancient Wallace Monument Tower that overlooks the Battlefields of Bannockburn, Avtech Services (Scotland) Ltd have installed a Sound and Light Control System that describes the busts of 16 Great Scotsmen. These are in the Great Hall half way up the Monument.

When the automatic show is started the drapes over the windows close, and then each bust is illuminated in turn as it is described in an informative commentary by Gordon Jackson.

The control system uses standard Electrosonic equipment configured to meet the requirements of the "show". Sound replay is from an ES1311 Cartridge Tape Deck, programming is by ES4044/16 Effects Control Units, and 17 ES6090 Series Automatic Dimmers control the spotlighting; this is mounted on an Alta Structura frame suspended from the ceiling. A special feature of the control racks is a time clock controlled heater system that is built in to the racks to counteract the damp atmosphere within the monument.



Brian Smith, Director of Avtech, with the Sound and Light control system.



Inside the Wallace Monument.

Sceneset in Edinburgh

ONE of the first DIGIDIM installations was for the prestigious Cameron Toll Shopping Centre in Edinburgh. In it a SCENESET unit is used not only for controlling dimmers, but also for contactor controlled lighting. In all 24 dimmer modules and 11 contactor relays control tungsten and discharge lighting in the circulation areas, parking areas, direction signs and landscaping.

A total of 8 lighting scenes are available, and these are selected depending on the time of day, day of week and ambient lighting conditions. The scenes are automatically selected according to information received from a 4 channel digital time clock and a 4 level photo sensor.

Have a nice holiday

Tom Geary, our Lighting Sales Manager, reviews a recent sales tour.

"HAVE a nice holiday" is the greeting I get when I leave for a sales trip abroad. Next time I hear this, someone could get hurt.

I left on Wimbledon finals day. I felt things weren't going too well when the taxi driver lost his way to Heathrow. Even so I arrived in good time at the airport to get the last window seat in smoking. This seemed fine until a group of seamen decided that the best place to hold a party before picking up their boat in Bombay was right behind my seat.

The second leg of the flight was smooth until one hour out of Hong Kong. The "Fasten Seat Belt" sign came on. The Captain omitted to mention that we were passing a typhoon. Have YOU been through a typhoon? Try it.

So I get to Hong Kong two hours late after 18 hours flying. As I arrive in my hotel room the phone is ringing. Our Distributor; can he meet straight away as a quote has to be finalised this evening. We do, it is, and after crashing into bed I wake up at 3 a.m. because of the time shift.

Two days later I arrive at Kuala Lumpur. Delighted my suitcase is first off the carousel. Less delighted that one and a half hours later my shoulder bag is discovered in some recess of the baggage handling system having fallen off.

Thursday and Friday frantically busy in Malaysia, our distributors not being aware I am here for the rest. Felt groggy on Friday, and sufficiently bad on Saturday to see a doctor. Raging temperature and virus infection diagnosed. On mentioning to doctor that I do not usually have problems travelling am told "If you visit the mountains often enough, then one day you will surely meet with the tiger".

Whole weekend in bed with fever and no one to complain to. Back to work on Monday trying to make up for lost weekend work time. Evening finishes with a business dinner that goes on to 2 a.m. Tiger not pleased. Two more hectic days in Malaysia, then on to Singapore.

This is our busiest market in the Far East. Multitude of meetings, problems, quotations and requests. Including one request from Malaysia that I return to Kuala Lumpur for the day for an important meeting. 10 a.m. meeting means 7.30 flight from Singapore, a 6.30 a.m. check in, a 5 a.m. wake up call.

Now our Singapore distributor has lost me for a day, so he makes me work Saturday, and Sunday morning. Sunday afternoon off!!! Of course this is the one time it is overcast.

Next stop Columbo in Sri Lanka. I arrive at 11 p.m. The taxi drive from the airport is the most terrifying of my life. The driver is like a moth, attracted to every bright light approaching from the opposite direction, but miraculously missing all the pedestrians, cows, ox carts, buses and ancient Morris Minors, although he seems to be trying hard to do otherwise. I give him a big tip (why? I wonder).

Sri Lanka is a new market for us, and there is lots of interest and enthusiasm, resulting in long days and lots of work. I have a late flight out due on the Sunday (3 weeks after leaving London) so I promise myself the Saturday and Sunday off. Sri Lanka is the legendary site of the Garden of Eden, and I must get a tan to convince those in the office I have had a good holiday. Of course I end up working both days, giving Sales Training on Saturday, and helping out with an AV installation (not usually my speciality, but I cannot convince our clients that this is the case) on Sunday.

An 18 hour flight back to London, a days rest, and into the office. Of course it is the Managing Director who says "Had a nice holiday?"

Royal Princess

ON PAGE 6 we describe the lighting control installation on board the "Royal Princess", P&O's new flagship. Special versions of the ES6090 series of dimmers were supplied for this prestige installation. They had to meet the requirements not only of the owners, P&O, and the builders, Wartsila, but also of NEMKO and other regulatory bodies. Many of the dimmers were under the control of MULTISCENE controllers to give maximum flexibility and minimum complexity in use.

St. David's Hall

ELECTROSONIC worked closely with theatre consultants Carr and Angier and acoustic consultants Sandy Brown Associates when installing the sound system for St. David's Hall in Cardiff.

The hall is designed primarily for Choral and Orchestral concerts, but is also used for light entertainment and special events. The equipment installed by Electrosonic included a 24 input 8 group sound mixer, an automatic conference microphone mixing system, and a custom built microprocessor controlled 8 into 24 loudspeaker routing unit.

Most of the loudspeakers are installed in the space frame above the stage, the layout being complex to ensure even speech reinforcement to every seat in the house.

Boy George all lit up

THE "Heroes Live" gallery at Madame Tussauds in London is popular with visitors because it identifies "people of the moment". Since its inception it has used sophisticated sound and light techniques, with all main sound and light control equipment being supplied by Electrosonic.

It needs continual updating. When it opened the "Heroes" included Dubcek, de Gaulle and Cilla Black. That was 1968. Today's "Heroes" include Daley Thomson, David Bowie and George Orwell. Now they have been joined by Boy George.

Up until now the sound and light control for "Heroes" has been done by a central set of equipment that has been redeployed and reprogrammed as needed. The present system was installed 10 years ago. However when Boy George arrived there was no spare equipment, so a special subsystem was supplied.

This consisted of a sound rack with ES1311 cartridge tape deck, equaliser and Quad 405 Power Amplifier; and a programmed lighting control system using ES6090 Automatic Dimmers and an ES24 Multiplex Decoder. In fact the decoder was a "recycled" unit. It had been used for several years in the London Planetarium, and became available when the Planetarium went over to System 4000 Control.

All installation and programming was done by Madame Tussauds staff. They have a complete programming suite able to program both the "old" multiplex programming system and the "new" System 4000; as well as some special control programs for display applications.

Holiday Inn Kuwait

THE picture shows the magnificent atrium of the Holiday Inn Kuwait. For this hotel Electrosonic were responsible for a wide variety of low voltage services.

These included ES6090 Automatic Lighting Control for all the public areas, the Room Status System, Sound Systems and Sound Distribution.

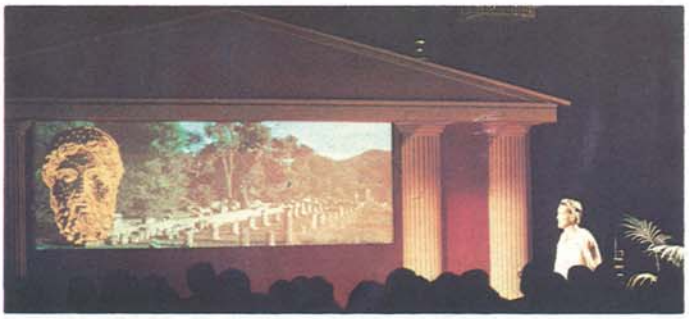
The photograph below shows one of the bedhead panels that are installed in every bedroom. These were manufactured at our Maidstone factory; such panels are usually custom designed to meet the needs of the particular hotel.

Hanover Fair

THE Hanover Fair must be the biggest Industrial Trade Fair in the world — it is so big that it would not really be possible to visit all the stands in its one week opening time.

Every year at Hanover there are many exhibitors using Electrosonic AV Presentation Systems, and there are always staff on hand from Electrosonic GmbH to instal and maintain. The picture shows a fine presentation (18 projectors from ES4603) produced by AV Ideepro Produktionen Von Slatow, Habermann & Co for the Brown Boveri stand.

At this same 1984 Fair Electrosonic GmbH Dusseldorf directly installed 3 Multivisions, and assisted Electrosonic Dealers from Hamburg, Frankfurt, Berlin and Munich with several more — as well as helping producers and customers who had brought their own equipment. One of the latter was Electrosonic Ltd London who were exhibiting the new DIGIDIM products in the Lighting section of the Fair.



Roundel in Greece and Florence

LONDON based Roundel Productions have been taking their Electrosonic System 4000 Multi Image control equipment to classical locations. A recent string of four conventions for different clients was staged in Athens and the Greek Islands. The picture shows the "Grecian" set for the Legal and General Assurance Co's convention, that used an actor in national costume as linkman.

Another "classical" set was created for a conference held in the Congress Centre in Florence for IBM Sales and Technical Support Staff. Apart from the big and necessary AV screen the set looked as timeless as the city, with lecterns in "stone"!

All steamed up

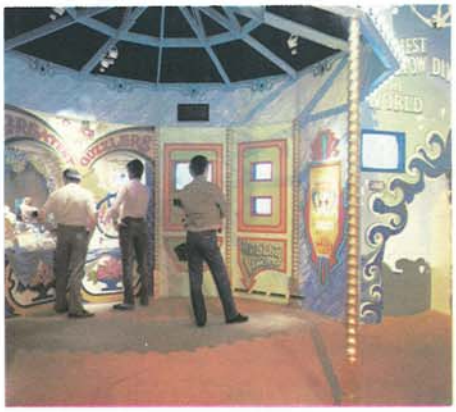
COLIN Garratt presents "The Great Railway Adventure", a marvellous audio visual lecture presentation that is sponsored by Electrosonic, Canon and Agfa Gevaert. The show uses 3 Projectors and stereo sound on Electrosonic System 4000.

Colin Garratt is probably the only photographer and writer in the world professionally engaged in documenting the end of the steam age. In 1969 he abandoned a marketing career to begin his self-imposed task and now, more than 15 years later, he has covered some 50 countries; as well as writing and illustrating 16 books, making two TV films and giving thousands of lectures.

Colin works with Maggie Grzyb, and together they spend 4 months of the year touring Britain with the show. In this time they give 80 performances, including some in the country's biggest theatres. For much of the rest of the year they are travelling the world gathering further material; recent successful trips include long visits to both China and Poland.

"The Great Railway Adventure" includes an incredible variety of locomotives in dramatic moods embracing smoky shed scenes, trains in full cry; industrial dramas; twilight and night scenes with shrouds of flaming embers being flung into the sky; rusted giants languishing in graveyards festooned with wild flowers, and scrapyard scenes of great poignancy. Quite apart from the locomotives, the presentation brings out aspects of the remarkable travels and adventures which befall Colin and Maggie as they pursue their global quest.

A new show is in preparation which will be run concurrently with "Adventure". After touring the UK it is scheduled to visit the USA in 1986. We are pleased to be associated with this show; if you want to see it, or have an audience who would like to book it, please let us know.



Guinness Records

THE Guinness World of Records Exhibition at the Trocadero, London, uses many display techniques. This section is devoted to some of the more bizarre records, and has a "fairground" atmosphere. Some of the records are shown being broken on video sequences.

The whole exhibition uses Electrosonic Lighting Control, both to set the required ambience and to ensure reasonable lamp life. ES6090 dimmers are used, and where dynamic lighting sequences are required they are controlled by SCENESET units. The exhibition was designed by Robin Wade Design Associates, and is run by Guinness Superlatives Ltd.

See pages 10 and 12 for stories on the video and computer installations at this exhibition.

Presentation rooms in Holland

THE picture shows one of the two demonstration rooms at Haagtechno, the Dutch Importer of Panasonic and Technics. This one has an Electrosonic System 4000 multivision installation with 6 projectors and associated lighting control. The other one uses an APOLLO presentation unit for product shows.

Our office in Amsterdam, Electrosonic Systems BV, specialises in the needs of Presentation Rooms and Visitors Centres. Sometimes they work direct for the Client, sometimes in association with a Consultant or Show Producer. For example the Haagtechno installation was done in association with Iris Kommunikatie Service BV. Another co-operation with Iris is a 12 projector system at the visitors centre of the Royal Dutch Paperworks at Maastricht.

Recent work carried out directly includes control and AV systems for several major and small boardrooms for Philips, the AVRO (Dutch Radio and TV Association) Visitors Centre at Hilversum, the Netherlands Tourist Board Visitors Centre in The Hague, and the KEMA Visitors Centre at Arnhem.

Other co-operative work includes systems for the Netherlands Credit Bank in Amsterdam (with Elce Consulting) Visitors Centre at Ultra Centrifuge Nederland and the training room of Billiton International Metals (both with Carillon Producers) AKZO head office in Arnhem and ESSO in Rotterdam (with TFC) and the Europort Boardroom and Refinery Visitors Centre of the Kuwait Oil Co. (with Heggelman AV).

While most of the systems are based on Electrosonic Multi Image and Lighting Control Equipment; many of them include special video control systems and all use custom control panels designed and produced by Electrosonic Systems BV. It certainly seems that in Holland the Presentation Room has become an accepted management and selling tool, and its use is spread over organisations of all sizes.

Lutheran Brotherhood

LUTHERAN Brotherhood is a major private insurance company. They commissioned Richard Jamieson and Associates of Minneapolis to design the AV facilities in their new Theatre, Large Training Room and Teleconferencing Room. The supply and installation contract was executed by Electrosonic Systems Inc.

The system included two video projection systems, multi-image systems, movie, video camera and complete sound systems. Two custom built control podiums allow presenters to have total control of movie, video, slide, lighting, audio and even door closing from well designed, uncomplicated control panels.

Media Cube

MEDIA Cube is a point of sale display being promoted by Associated Images Inc. of Minneapolis. It is a modular concept using screen boxes, each fitted with one slide projector and a 25mm lens projecting a superslide. This gives a 2ft. square picture in a depth of only 32 inches.

The most popular format is to stack 3 screens high, since this gives a really bright 6ft x 2ft image with the whole display only taking up a 25 x 32 inch floor space. In this arrangement a small plinth contains the loudspeaker and an APOLLO AV Presentation Unit running in continuous mode. APOLLO allows a wide range of effects and is lightweight and compact. Major users of the Media Cube are Dayton's.

See also the APOLLO Page; Page 13.

Future on the Line

VIDEOPROGETTI of Rome produced a major show at the International Switching Symposium held in Italy during May 1984. This show also demonstrated the considerable resources for staging shows that our Italian Distributors, Electrosonic SpA, are able to offer.

The show was called "The Future is on the Line" and was made for SIP, Italy's Telephone Company. It was a 21 projector show, run from an ES4603 Audio Visual Presentation Unit, and was a corporate image show presenting the capabilities and new developments of SIP.

So far, so simple. The small problem was that the Switching Symposium was so big that it was taking place in 4 cities simultaneously; Florence, Venice, Bologna and Terni. The client's requirement was for a simultaneous presentation of the show in all 4 cities on 9th May. Electrosonic SpA obliged with 4 identical installations, and the first "Quadravisual Screening" was seen by 2000 people in 4 places!

The show was such a success that it was run for many more shows at the Symposium. It was made with an English language sound track; but its success resulted in an Italian version being made which is now presented to specialist and public audiences throughout Italy.

Phillips Petroleum

THE Boardroom at Phillips Petroleum's London Offices is a good example of the integration of audio visual facilities into the working boardroom environment. The facilities installed by Electrosonic include U-format and VHS Video replay, 16mm film projection, single and dual slide projection, video "overhead" projection and lighting control.

The rear projection screen is used for all three kinds of projection, and is large enough to allow two slide images to be set up side by side. The slide projection system includes an EXSRAX Random Access Projector and a GEMINI Presentation Unit, that can either be used for showing pre-recorded shows, or for manually operated dissolve sequences.

Control is either by the plug-in panel shown in the photograph, that can be plugged into sockets at either end of the room, or by an infra red hand controller that allows freedom of movement. The wired control panel allows the selection of 3 "scenes" of lighting, selection of video sources and remote control of the video recorders, slide projection control, including random access, and remote control of the movie projector. The infra red control duplicates the wired control, except that, to keep the infra red control as compact as possible, it does not have the random access facility.

Video projection is by a Barcovision Videoprojector. Source selection is for U-format, VHS, "off air" and "overhead". This latter facility is available in a small cupboard behind the lectern, and consists of a high quality video camera and illuminated platform. It allows the display of documents and objects on the screen.

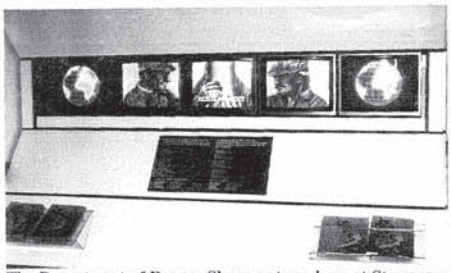
Creative Conferences

WHEN Searle, the pharmaceutical company, introduced a new naturally based sweetener called Canderel, they did so with a series of launch presentations culminating in a two week stint at the new Loews La Napoule Hotel in the South of France.

They chose Creative Conferences Ltd. of London to produce the show; which used Electrosonic System 4000 Equipment to run a 9 projector plus movie presentation on a single screen. Both the Product and the Show seem to have wowed the audience as within 6 months Canderel became the brand leader in a highly competitive market.

VIDEO

Our Project Engineering Division undertakes video installations of all kinds, but mostly concerned with display applications using videotape, videodisc, computer data display and video projection.



The Department of Energy Show on tour, here at Stavanger. Production by the COI and The Moving Picture Co.

Multi Screen Video

MANY Exhibitors at Trade Shows and big International Exhibitions want to use Audio Visual techniques, and very often the first thing they think of using is "the Company Video". This is usually a disaster, for, however good the program, it will not be seen in the correct environment. A video program with a beginning, middle and end needs watching in comfort and after a proper introduction to it. Just plonking a video monitor on an exhibition stand, and hoping that the passing crowd will watch it is usually a mistake.

Why? first because the program is not suitable for a moving audience, and second because of the over familiarity of the TV set. Thus if video is to be used at exhibitions there must either be a special "Presentation Room" environment with controlled audiences (usually not practical) or a special video presentation, tailored to the needs of exhibition, must be created.

One obvious way of getting out of the video rut is to choose a format that is unusual and "designs in" well to the exhibition stand theme. Recently Exhibitors have been looking at the possibility of using "Multi Screen Video" as a means of both having an eye catching display and of allowing the production of the "short sharp" program that is essential for exhibition work.

Five Screens

An example of the technique in action is a 5 screen show of the British Department of Energy seen at the 1983 Offshore Technology Convention at Houston, and seen with a new program both at the Canadian Offshore Exposition in Halifax 1984, and OTC Houston in 1985.

The 5 screen show gives a fast moving account of the use of high technology in the inhospitable environment of the North Sea. The show is presented on 5 video monitors in line. Each monitor is served by a separate video recorder, and great use is made of effects that depend on movement from one screen to another; for example helicopters "flying" across the screens.

Such a show obviously requires "frame lock" of the 5 video recorders used. While this facility forms a part of all video editing suites, it usually requires very expensive equipment. Electrosonic provided the engineering of this exhibit, and our task was to come up with a fully automatic showing system that did not depend on too expensive equipment. We decided that it should not only be economic, but also "universal" i.e. in principle would work for any number of video recorders. It also had to run continuously without attention — with an arrangement to display a caption on all screens while the recorders were rewinding and positioning.

The diagram shows the principle used. The system is based on standard monitors and standard JVC Umatic recorders CR6600E with capstan servo control. For each set there is a microprocessor controller ES4157S. All units are physically identical, although the "master" control unit has different microprocessor software.

Each tape is recorded with a clock track that is used for achieving a precisely defined show start point. Once the automatic "cueing up" has been achieved by matching the clock signals, all machines are run locked to a common sync pulse, in this case derived from the interval caption camera.

Audio is derived from one of the Umatic recorders. Synchronisation is usually that good that stereo could be derived from two machines, but in practice it is better to get it from one machine. This is possible since the clock track is not needed when the show is actually running, and a simple muting device is used to prevent clock track being heard during the show interval and start up period. The use of the other machines for special effects audio or multi language commentary in sync is, of course, quite practical. The other available audio tracks could also be used for multimedia control.

Other Formats

We expect to see increasing use of this kind of display in the future and already have engineering designs prepared for several other exciting display possibilities.

In a permanent installation it would be far better to use Video Disc as the picture source; the economics of disc production are now sufficiently attractive that the installed cost, including making the discs, would be about the same as the corresponding tape based system.

The main item militating against the introduction of this display medium is the very high cost of the original production. Splitting video images to fill a screen matrix requires the use of very expensive editing and effects equipment, with typical big city editing suite charges of between $500 and $900 per hour. One display possibility that makes the money go further is to combine the use of, say, 3 recorders with programmed screen switching.

For example the outputs of the 3 recorders could be fed to a switching matrix that allowed the 3 signals to be distributed in any combination to a 4 x 3 matrix of monitors. The additional equipment cost is relatively small, and careful programming can produce attention getting effects. The equipment used is a standard ES4024 Multi Image Programming Computer which controls a set of ES4044/16 Auxiliary Effects Units. These in turn control a bank of synchronous video switchers. For this trick to work without any picture roll on switching all sources must be operating from the same sync signal, and professional switchers that operate in the blanking period must be used.

We would welcome enquiries for Multi Screen Video Systems, both on an outright sale and rental basis.

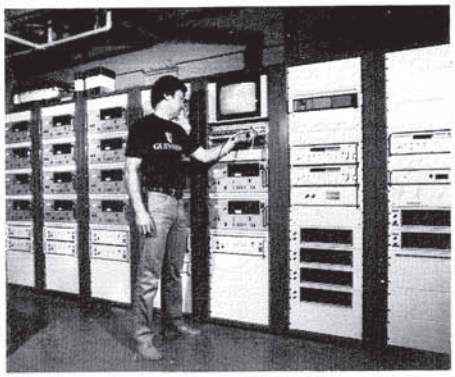
Guinness video

THE Guinness World of Records Exhibition in London is situated in the Trocadero, a recently opened development right next to Piccadilly Circus. It is, if you like, an illustrated version of the Guinness Book of Records. The exhibition uses many different techniques to convey the surprise of "records", from full size models of the world's fattest and tallest men, to the computerised displays described elsewhere in this issue of Electrosonic World.

Many of the more bizarre records have been recorded on film, so it makes sense for the relevant exhibits to include a video presentation. Thus, for example, video monitors are incorporated in the displays dealing with Sports Personalities, Domino Toppling, The Great Guzzlers, The High Dive into a few inches of water, Space Travel and many others.

To simplify maintenance all the video replay equipment, which includes 20 Sony U-Matic machines, is installed in a central control room. The video players are controlled by Electrosonic video Autopresent Units that ensure that screens are never blank. This is achieved by a changeover system that plays a common logotype theme while any particular machine is rewinding. The same rack assembly also contains the continuous sound system for the exhibition. This consists of 3 ES1311 cartridge decks playing a total of 12 continuous sound tracks.

The video sequences were prepared for Guinness by Alan Russell, free lance producer, who works on the BBC1 TV programme "The Record Breakers". The editing and show copy production was done at Molinaire Ltd.



The Video and Audio Replay Racks in the control room at the Guinness World of Records Exhibition. Note the Autopresent Controllers under the Video Cassette Players.

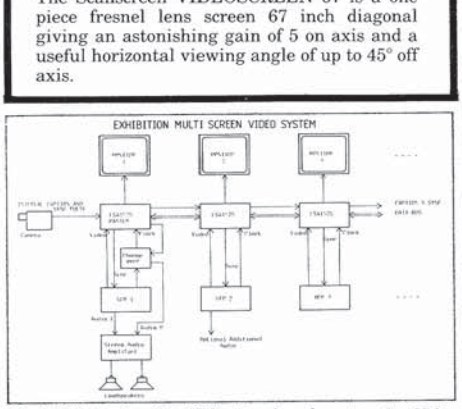
SCANSCREEN
for brighter images

REAR projection is the best method of image presentation when space is at a premium or when images must be viewed with a high ambient light level.

There is a choice between flexible and rigid rear projection screen material. Flexible has the advantages of reasonable cost and of being available in any required size. However, many exhibitions and presentation room applications are best served by rigid screens. These are available in sizes up to 1530 x 2500mm; usually 5mm thick, giving good sound absorption and mechanical stability.

We now supply the Danish SCANSCREEN material which gives excellent performance and has the advantage that the pigment and diffusing material are within the acrylic base. Pictures are free of hot spot and have a wide viewing angle.

The limited light output of video projectors demands a more efficient screen for video rear projection when used in high ambient light. The Scanscreen VIDEOSCREEN 67 is a one piece fresnel lens screen 67 inch diagonal giving an astonishing gain of 5 on axis and a useful horizontal viewing angle of up to 45° off axis.



Block Schematic of a Videotape based system for Video Multiscreen.

Martin Piper of Electrosonic setting up the recording and distribution racks in the temporary building outside the Connaught Rooms.

ES at the Summit

THE combined resources of Electrosonic's Systems Engineering Division and its fast expanding Hire and Staging Department made a significant contribution to the smooth distribution of press information at the World Economic Summit Conference held in London in June 1984.

Four thousand journalists from all over the world were in London to cover the Summit, and the Central Office of Information was the Host Government's agency responsible for ensuring that the journalists both received the information they needed and were able to get their stories back to their own countries.

The COI were determined that the Press Information and Communications System should fully meet the needs of the visitors, and specificed what was probably the most comprehensive system ever to be assembled for a meeting of this kind. The system was to be based at the Connaught Rooms which for one week were turned into a massive Press Centre.

The complete system was installed by a team of three Companies. British Telecom, who provided TV signal distribution, landlines, microwave links etc., Independent Television News, who provided an on site continuity studio, and Electrosonic who provided Recording, Routing, Distribution and Standards Conversion Equipment.

40 video recorders

The part of the system provided by Electrosonic was designed and built specially for the 4 day rental. It consisted of 40 Video Cassette machines, both high and low band, complete with editing suites; 625/525 and PAL/SECAM Standards converters, together with all the associated Time Base Correctors, Distribution Amplifiers, Patchfields and Caption Generators.

The equipment was installed in two locations. Half was actually in the Connaught Rooms, and the other half in a temporary building set up on the sidewalk outside.

The purpose of the system was to receive news items by landline, microwave and satellite from France, Germany, Italy, U.S.A. and Japan. After Standards Conversion and editing, these were combined with U.K. originated news programs and distributed on 6 of the channels of a 16 channel Television Distribution Network, provided by British Telecom, feeding some 150 T.V. Receivers both in the Connaught Rooms and in St. James' Palace.

Another important function of the system was to allow foreign broadcasters to feed locally collected news items back to their parent stations for transmission on their own networks.

24 hours a day

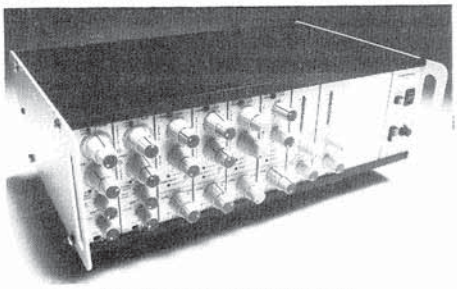
The whole system was prefabricated at Electrosonic's Woolwich Factory. This ensured that the site installation could be completed in 24 hours. It was then jointly staffed by C.O.I. and Electrosonic staff, on a 24 hour a day basis, for the duration of the Summit. At the end of the conference the system was completely removed in less than 8 hours.

A job we were proud of, and one which demonstrates our considerable expertise in both video engineering and in providing hire resources in depth.

Jim Letch of the COI (above) and Bob Stinton of Electrosonic (below) working on some of the equipment installed inside the Connaught Rooms.

AUDIO

AUDIO forms an important part of our AV products, and also of our project work. We specialise in the needs of auditoria, exhibitions and display.



The ES1280 Modular Audio Mixer.

NEW MODULAR MIXER

MANY of our sound installations, especially those in Presentation Rooms and Public Entertainment Facilities, require flexible high quality mixing systems that must either be easy to operate by non-specialists, or must operate completely automatically.

An analysis of a large number of our custom built systems led to the development of a "Universal" Rack Mounted Mixer Unit, the ES1280. Like a conventional desk top mixer, the ES1280 has input channels, routing and group facilities. But it also has control busses so that input priorities can be set up, automatic mixing achieved, and automatic channel on (noise gating) can reduce unnecessary system noise. Most important, it has VCA control of inputs and outputs so that noiseless control of level can be achieved from multiple remote locations.

The ES1280 packs a lot of facilities into a small space. The 3RU high assembly has 8 slots for Input, Twin Input or Group Output Modules. A 9th slot accepts a control card that can be configured for automatic mixing or different priority ladders; and a 10th slot is for a signal processing card, such as compressor/limiter or electronic crossover.

One frame can be configured for any combination from 14 input, 1 group to 8 input, 4 group. ES1280 Frames can be linked together in respect of group audio and control bussing and systems of up to 60 inputs on 4 groups are possible. Input modules include phantom powering for microphones, transformer balancing and parametric equalisation. The VCA (voltage controlled amplifier) facility for remote and automatic control is an option that can be applied to some or all of the modules in a system.

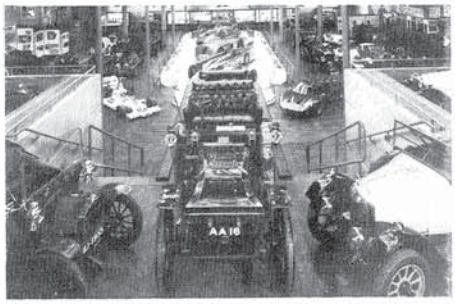
$million sound in Hong Kong

ELECTROSONIC are working on a HK$7.2 million (about US$1 million) contract for the Academy of Performing Arts in Hong Kong. It is an excellent example of that kind of job where we combine our own specialised manufacturing abilities with the integration of equipment made by others.

Our contract is for the supply and installation for all the main sound and communications equipment. This includes video equipment and the manufacture of several hundred custom built socket outlet and relay boxes; in addition to the professional sound reproduction equipment and stage management systems.

Carr and Angier are the Theatre Consultants for the project, which is funded by the Royal Hong Kong Jockey Club. The Academy of Performing Arts Architects are Simon Kwan and Associates, and the main contractors are Shui On Construction Co. Ltd. We are subcontracted to the Electrical Contractors who are Meco Engineering Ltd.

Solid State Sound for Motor Museum Ride



The National Motor Museum at Beaulieu (UK) Home of the Centenary Ride.

RECENT developments in electronics are of two kinds. Those that make an old way of doing things easier, and those that represent a totally new approach. Until now the accepted methods of recording sound have always involved moving parts — a revolving disc, a moving magnetic tape. Now it is possible to think in terms of "solid state" sound recording, where sounds can be recorded directly into "chips", resulting in a play back system that has no moving parts.

This revolutionary idea is now becoming both technically and economically feasible for certain specialist applications. The technical realisation is possible because of the amazing "packing density" that is now achieved in modern large scale integrated circuits; where, for example, more than 256,000 "bits" of information can be stored on a single "chip".

Synthesis or recording

There are two possible approaches. One is "sound synthesis". Here the system has in its memory the instructions necessary to make various sound elements; usually speech elements known as "phonemes". A microprocessor unit then stores a sequence of instructions to operate the "synthesiser", and the result is either a simulation of a specific sound; for example the sound of a ship's engines in a ship simulator, or it is simulated speech.

Examples of the latter can already be heard in automobiles, and, no doubt, they will soon be heard in many more industrial and consumer applications. At present such methods are only economic when executed in large volumes.

In our business we might well be called upon to use speech synthesis in a specialised exhibit. However a much more common requirement is to be able to replay RECORDED sound continuously and reliably. For such applications the ideal product is a black box into which you can play a conventionally recorded sound. Once it is in there, this same black box should be able to replay the sound continuously on demand. In doing so it should have no moving parts, require no maintenance, and never either lose its recording or suffer from any wear.

Such a utopian product is now technically feasible. Digitally recorded and reproduced sound is already available in the home, in the shape of the Compact Audio Disc (CAD). On the CAD sound is recorded as a numeric code expressed only as ON or OFF signals. This can result in marvellous sound that is free of noise and in principle the CAD does not suffer from any wear. However the CAD is again only economic for large volumes, and in any case still involves moving parts.

Good sound quality

The question is, therefore, can the digital recording of sound be applied directly to a "chip"? The answer is a qualified "yes". Qualified because of the huge amount of memory needed. If a "High Fidelity" frequency response is required the quantity of memory needed is awesome; however many applications can settle for a good commercial quality, provided it is free of all noise and has a good low frequency response to avoid any "telephone" quality. It is feasible to aim at AM radio quality, or movie soundtrack quality, but without any interference.

We are working on one such application, which we expect to result in products especially suitable for museums, exhibitions and displays. This is where voice and/or effects must be recorded for continuous replay, and where each sound segment is relatively short. In certain cases the "solid state" approach can now be shown to be no more expensive than the tape equivalent, and in some cases less expensive. It does, in any case, have the overwhelming advantage of virtually "zero maintenance".

An interesting example of where the idea is being applied is at the National Motor Museum of Great Britain. May 1985 sees a new "ride" opening here in celebration of the 100th anniversary of the Automobile. In it visitors ride in small cars that transport them on a journey through 100 years of motoring history.

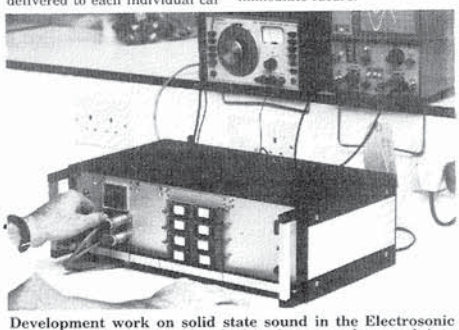
The many tableaux that the visitors see ranging from Henry Ford's first English factory to Motor Racing through the century each includes their own relative effects lighting and sound. However, the interpretive description is given by means of a commentary that is delivered to each individual car on the ride. This obviously requires that each car has sound uniquely synchronised to it; so that the commentary describes exactly what the occupants of a particular car can see at a particular point in the ride.

70 sound sources

The only way in which this can be achieved is by having, in effect, a separate sound source for each car (although for technical reasons this is not the way the equipment is disposed). Thus at the National Motor Museum about 70 tape cartridge machines would be needed to achieve the required result if a "conventional" solution to the problem was used.

Instead the ride uses an Electrosonic Microprocessor controlled solid state sound system. Besides being economic as an investment, particularly because of the elimination of the need for routine maintenance, the system is able to offer some incidental advantages. The system is able to store "silences" as separate quantities. Thus it can, if required, "stretch" sound segments by lengthening the pauses between sentences. The ride itself can be run at different speeds (faster at a holiday weekend!) The sound commentary system monitors the track speed and adjusts the "speed" of the sound accordingly.

An interesting example of the application of the latest advances in microchip technology. We expect many similar applications, although mostly on a smaller scale, to emerge in the immediate future.



Development work on solid state sound in the Electrosonic Laboratory. Shown is the device that records sound into "chips".

Theatre sound in Canterbury and Groningen

EVERY year Electrosonic complete the sound and communications installations for many auditoria. They can range from very simple speech reinforcement systems up to complex systems costing hundreds of thousands of dollars/pounds. Two recent "middle of the road" installations are those in the Marlowe Theatre, Canterbury, and the Stadschouwberg Theatre, Groningen.

Both installations had the same Theatre Consultant, Tony Easterbrook of John Wyckham Associates, so it is not surprising that there are some similarities; apart from the fact that they are both civic theatres largely funded by their respective city councils.

Electrosonic are experienced in the special needs of Theatre Sound. Priorities are good communications for stage management and technical staff; great flexibility in the allocation of "sound groups" and loudspeaker routing, and very even distribution of sound throughout the auditorium. In both these cases there was also the need to provide thoroughly competent systems within a limited budget.

The Stadschouwberg sound mixer (above) and the Marlowe Stage Manager's Desk (below).

Marlowe

The "New" Marlowe Theatre replaces one demolished to make way for a shopping precinct. It is in the old part of the City and is, in fact, a conversion of what was the Odeon Cinema. The sound system includes a 16 channel, 2 group, 2 auxiliary group, 4 foldback send mixer built in to a console that also includes tape machine control and loudspeaker routing switches.

Other items in the sound control room include a comprehensive patch panel, tape and disc machines and the main amplifier rack. For the main sound this includes an electronic crossover system to feed a specially designed loudspeaker array.

Along the top of the proscenium arch there is a barrel from which all the main loudspeakers are supported. There are two large bass horn cabinets for frequencies of 250Hz and below, two midrange horn cabinets each with two 10 inch drivers for the range 250-800Hz, two metal MHF horns for 800-5000Hz and finally two HF horns for 5kHz and upwards.

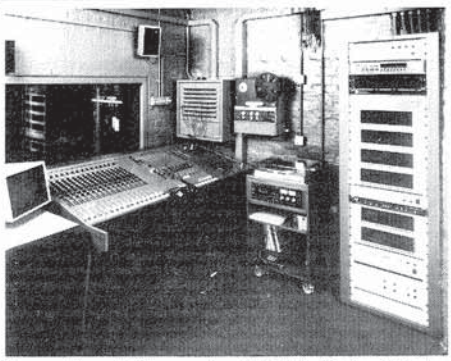
The MHF horns on the proscenium arch can only cover the front stalls, the rest of the theatre is covered by MHF horns mounted on a lighting bar above the auditorium, the signal to these being suitably delayed. In addition the very back of the auditorium has some additional loudspeakers, also fed by a delayed signal. The overall system is able to achieve an even dispersion of sound varying by no more than 4dB from 45Hz to 16kHz at 96dB spl throughout the entire seating area. This is achieved while still allowing 6dB of headroom and using limited amplifier power. (The entire installation, including effects circuits, uses only 6 Quad 405 2 x 100W Amplifiers).

Groningen

The Groningen Theatre is a refurbishment of the existing theatre dating from the turn of the century. The sound mixer is virtually the same as the one at Canterbury (it is maroon instead of blue) without the push-button speaker selection. A combination of economic and aesthetic considerations dictated a different loudspeaker arrangement. Music Quality Line Source Loudspeakers are built into the proscenium arch, and these are supplemented by additional loudspeakers at the rear of the auditorium, fed by a delayed signal.

Both theatres have Stage Manager's Control Desks with comprehensive paging, communication, effects and cueing controls. Each is supported by a rack of equipment carrying the central communications equipment. For many years such systems have been considered an essential part of modern theatres in Britain, but, according to Ton Post, Director of the Stadschouwberg, they are not common in Holland where up to now the tendency has been to use temporary communication systems put together for each show.

The Groningen Project was a joint effort between Electrosonic Ltd in London and Electrosonic Systems BV in Amsterdam.



The neat layout of the sound control at the Marlowe Theatre, Canterbury.

ES WORLD NEWS

Giant show for Fiat

OUR Italian Distributors, Electrosonic SpA of Rome, report a continuing of their tradition of involvement with large scale Multi Image Presentations. One of their most ambitious offerings was the recent 72 projector show for Fiat.

Fiat wanted a corporate image show that would show all the activities of the Fiat group. The general public think of Fiat as an automobile manufacturer, but in fact the Group's activities include robotics, metal trading, aerospace, avionics, marine and agricultural engineering and much else.

The show was to be presented at major exhibition sites in Italy, including the Milan Trade Fair, Palermo Trade Fair, Fiera del Levante of Bari, and the Salone Internazionale della Tecnica of Torino. The presentation had to be on a big scale, since it had to reach large audiences in a short space of time.

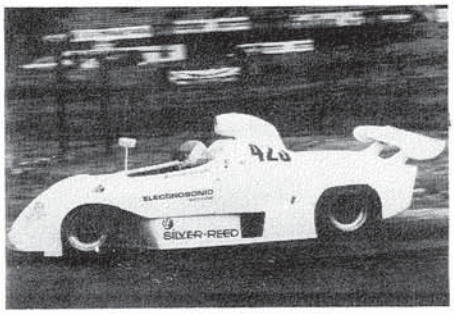
34 metre screen

The format chosen was a 180 degree screen in a circular auditorium. The actual width of the screen was no less than 34 metres (about 115ft). This giant screen was served by both slide and movie projection. The movie format was 5 images side by side, projected by 5 movie projectors electronically interlocked with the main show tape. Some of the movie sequences involved separate images on each screen section, but parts of the show depended on panoramic images. These were shot using 5 Arriflex cameras mounted on a specially manufactured stand.

The slide projection system used 72 projectors to cover the screen. Soft edge technique was used for the panoramas, and the auditorium was sufficiently big that all projectors had to be fitted with Meridian 200-300mm lenses. The whole show was a co-production of Cine Fiat of Torino and Videoprogetti of Rome.

Vrooom vrooom

Another piece of news we have from Italy is that the ELECTROSONIC colours can now be seen on a racing car! Gianni Giordano, Electrosonic SpA's Managing Director sent us the accompanying picture of "his" racing car in action, but so far we do not seem to have received many reports of race performance. We will let you know when the Electrosonic sponsored car is to be seen on the Grand Prix circuit!



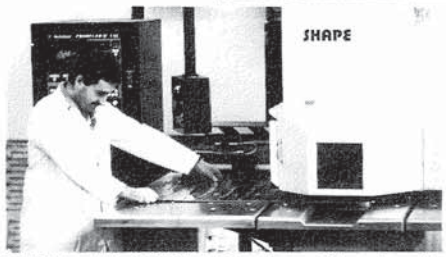
Electrosonic Italy's Racing Car.

New Investment at ES

ALL Electrosonic metal racks, cabinets, chassis, control panels and product casings are made in our own well equipped sheet metal shop. We have recently increased the capacity of this shop by the introduction of new CNC machinery.

The largest item is a SHAPE 35CNC Turret Punch-Press. From programs prepared on magnetic tape this machine punches out all the holes and cut-outs needed in sheets of metal up to 787 x 1880mm at speeds of up to 180 hits a minute (300 when nibbling!)

Of equal importance is a new Promecam Upstroking Hydraulic Press Brake, with CNC gauging system. The CNC control greatly increases the throughput of the machine.



Keith Bates at the SHAPE machine, the top picture shows Jim Tennant operating the CNC Press Brake.

Planetarium control systems

MODERN Planetarium shows are "Multi Media". While the focus of the show remains the Star Projector, this is now supported by a wide range of special lighting and projection effects. Planetarium managements also have a requirement to show different shows in repertory; for example in the morning there may be two school shows, in the afternoon two general interest shows and in the evening a public show with a higher "entertainment" content.

In practical terms the running of this kind of show regime requires automation. While new Star Projectors are now available with an automation package, most users are happy to have an operator to "drive" the Star Projector, and to have everything else run automatically from tape. Most public shows are now pre-recorded anyway, so the provision of a control or clock track on the tape is not a problem.

System 4000

Many Planetaria have found Electrosonic Multi Media Programming Systems to be ideal for show control; being good value for money, easy to use, and based on standard products in series production. Users include such widely spaced installations as the Armargh Planetarium, Northern Ireland; the Johannesburg Planetarium, South Africa and the Hong Kong Planetarium.

Robin Hirst programming at the Melbourne Planetarium. Electrosonic control rack behind him.

While we are currently working on a number of special Planetarium Projects using very large numbers of projectors and effects, it is the case that most users' needs can be met by standard SYSTEM 4000 Equipment. A typical user here is the Planetarium at the Memphis Pink Palace Museum. Their initial needs have been met by a 12 projector system with extra auxiliary control, and they can be supported by local Electrosonic dealer, Memphis Communications Corporation.

A more elaborate installation is to be found in the H.V. McKay Melbourne Planetarium. Here a special Rack Mounting version of the ES4003 is used, with all main control equipment being sited centrally. The outputs of the ES4003 units can be used either for slide projectors or for lamps. The complete system has a capacity of 24 projectors (or lamps) and 56 auxiliaries.

Robin Hirst, Director of the Melbourne Planetarium, reports that the new control facility has increased the number of shows he can run in a day, as well as ensuring that it is easy to run different shows on the same day. He also uses the APPLE computer that programs the Electrosonic interface devices for the word processing of his scripts, and for carrying out astronomical calculations. The Melbourne installation receives technical support from local Electrosonic dealer Hay Communications Pty Ltd.

Entrance to the Pink Palace Planetarium.

London

The London Planetarium is reckoned to have given more public shows to more people than any other in the world. It is already long past 25 years of continuous 7 day a week operation. For a number of years it used an Electrosonic System 3000 for effects and slide projection control. This has recently been replaced by a SYSTEM 4000 installation.

Limited

At present only a limited number of slide projectors are used (9 Simda projectors with ES4003 control) but there are a great number of special effects projectors. Four ES4044/16 control units are used to drive a relay matrix that connects 48 special effects projectors to 6 ES6090 Automatic Dimmers. The system can easily be expanded when required, and is compatible with other systems being used in the Madame Tussauds organization (who own the London Planetarium). They have their own programming suite and sound studio.

Computer displays for Guinness Records exhibition

NOW you can see the Show of the Book. Guinness have opened "The Guinness World of Records Exhibition" at London's new Trocadero Centre, next to Piccadilly Circus; and it is based on the information to be found in The Guinness Book of Records. The Exhibition is run by the Publishing Arm of Guinness, Guinness Books, and was designed for them by Robin Wade Design Associates.

Many different display techniques are used in the exhibition (see the separate story on the use of video on page 10). These include models, animated figures, effects lighting, dioramas, photo montage and graphics. The ubiquitous microprocessor has also found its way in, with some particularly interesting applications.

Sporting records

One requirement was for a display that would show on demand any of the principal facts and records shown in the "Guinness Book of Sporting Facts". The sheer quantity of information, and the need for frequent updating, meant that some kind of computer system was needed. The problem was to find one that would give a fast response but which could be obtained for a reasonable cost.

The installed system has three "Visitor Stations", each of which has a small colour monitor and a set of 16 push buttons. A second, larger, monitor is suspended overhead so that spectators can see what is going on. When a visitor approaches the display he is confronted by a master index, listing major sports by name and minor sports in alphabetical groups. Pressing one of the buttons selects a sub index which in turn gives a further choice, one final selection gives the visitor the specific information he is looking for.

For example you can find out who won the World Cup in 1967, or who won the Derby in 1925, or who holds the record for catching a particular freshwater fish. The computer response is fast, only a few seconds, and the total capacity of the final information is 4096 separate "screens" of facts.

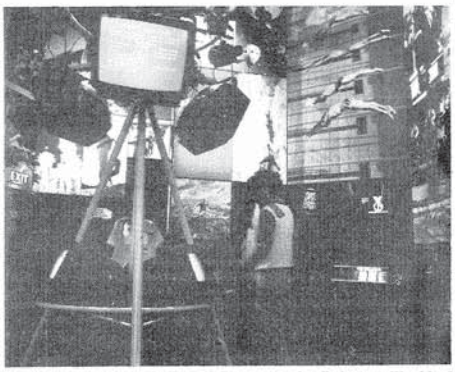
Hard disc

Electrosonic designed and supplied the system, using proprietary products where possible, but making the special interfaces and control panels. The system is based on the use of standard APPLE IIE computers, one for each "station", fitted with colour cards and special Input/Output Interfaces for the remote control panels. All data is stored on a Corvus 6MB Winchester "Hard" Disc Unit; which is shared by the three computers.

A single computer back up system is installed in the technical control room and is used for doing the updating work. This "off line" unit is also fitted with a printer, so a complete "hard copy" can be run off for checking when necessary.

The computer software is a mixture of the bought in and specially written. Because of the need to have a "display" typeface, as opposed to the small letters offered by normal computer screens, a text graphics program was selected that would both present the information well, and allow easy composition of the "pages". This program is "SHOWCASE" from The Rainbow Software Company.

However the main control program had to be specially written, with the SHOWCASE program being "embedded" in it. This was done by Coen Margadant of Electrosonic Systems BV. Finally there was the small problem of entering all the facts and records, and coding them so the computer could find any one on demand. This 500 hour task was completed by Frances Simpson.



The Sporting Records Recall System at the Guinness World of Records. There are 3 Visitors' Terminals.

Speed display

Several other exhibits use microprocessors as their basis. Most of them are based either on the use of Electrosonic SCENESET units or on Electrosonic Logic Card Microprocessor controllers. For example one display shows the population of The World, Great Britain and China. This display operates 24 hours a day and changes the numbers automatically and continuously.

The most elaborate is the "SPEED" display. This spectacular display uses 600 light boxes and 26 large numerical indicators to demonstrate the relative speeds of a man running against his rivals in the animal and mechanical kingdoms. This very complex display benefits from the use of standard Electrosonic control logic, and the particular advantage of microprocessor control was shown when the display was first run. The designer required a change in overall timing of the display, which, since all the elements of it have a mathematical relationship with each other, would have been a difficult task had the display been "hard wired". As it was the change was made by a modification to the control program.

Stars in Toronto

WE are currently working on a project to provide a high degree of automation to the McLaughlin Planetarium at the Royal Ontario Museum in Toronto. In fact this Planetarium is a long standing customer of our Canadian Associate, Multivision sion Electrosonic Ltd; but the current work will result in one of the largest effects control systems to be found in any Planetarium.

The McLaughlin plays a very full schedule of shows in repertory, and for some time has been looking for a system that will help with the efficient creation of complex shows, combined with the simplest possible method of presentation. The system we are working on can be considered to be a "giant" version of a multi image control system. Thus while our standard ES4024 Apple based computer can handle 24 automatic slide projectors and 96 auxiliaries at 20 cues per second; the large system uses an S100 Bus based computer to handle an enormous number of functions at the same speed.

The basic capacity of the system is 120 Automatic Projectors, 480 Auxiliaries and 512 dimmers; however additional processor cards can be fitted to run up to 64 real time analog outputs as well. In automatic shows run from tape a clock track method of synchronisation is used, with a command sequence on the first part of the tape ensuring automatic loading of the control program corresponding to the show selected.

The system still uses Electrosonic standard products as output interfaces (e.g. ES4003, SCENESET etc). This makes it good value, easy to maintain, and easy to expand. At McLaughlin the initial complement of controlled devices is about 80 projectors, 36 dimmers and 480 auxiliaries. Many of the Planetarium projector functions are included in the items under control.

We have several other large public entertainment projects destined to use the same computer system, and are developing suites of software to meet the most common "Big Show" applications.

THE APOLLO PAGE

AV Presentations based on slides have impact and are excellent value, especially for exhibit and conference applications. APOLLO makes such shows easy to run and is our most successful AV product.

Holiday Inn Presenter Plus

SPECTRUM Communications, the London based Marketing Communication Agency, have recently carried out a major project in Canada, involving the installation of a comprehensive package of audio visual hardware in hotels owned and operated by Commonwealth Holiday Inns of Canada. The project is an extension of Spectrum's successful Guaranteed Venue Scheme which has been installed in over 55 hotels in the UK and Channel Islands.

Holiday Inn®

Working in close co-operation with Doug Elphick of Multivision Electrosonic in Toronto, a package of equipment was devised to meet 90% of the meeting needs of those customer organizations not utilising the services of a staging or production company. The package includes a rear projection packaway set and lectern, Electrosonic APOLLO with projectors, cine projector and portable sound system.

Following shipment the team from Spectrum visited each of the eight properties and carried out a 2 day training course for the key operational and sales personnel. Bernard Bussy, the Director of Spectrum Communications who co-ordinated the project was delighted with the back up he received from the Multivision Electrosonic team, and is negotiating for further packages with Holiday Inn.

EXCLUSIVE!!!!!!
New AV Program Product

Roddy Gye, Director of our Central London Dealers, Gye Handley, has a new product of vital importance to commercial AV users.

MICROPROCESSOR controlled projectors, interactive video, computer graphics, integrated conference room systems. The technology marches relentlessly forward. But what about the audio visual programme? What are the new advances that are going to shake the audio visual world?

We can now offer a preview of one of the most exciting innovations of the decade; the Boil-in-the-Bag audio visual. The principle is, like all the best ideas, really very simple. There is a standard script, standard visuals, standard music and a standard message, which make it very easy and economical to produce. We have managed to get hold of a snippet from the script which we can reveal here for the first time.

(The screen is dark. A low rumble starts. Brrrrrrrrrrrr . . .

Slowly we begin to see a landscape. It is dawn. The music begins.

Paaaaaah Paaaaaah Paaaaaah Dee^{Dum})

(We now see a shot of earth from space. An eerie wind blows across the sound track).

Narrator (in deep succulent tones): "Since the beginning of time man has striven to come to terms with his environment."

(Bim^{Bam}Bim^{Bam}Bim^{Bam}Bim^{Bam}Bim^{BAM})

"The four elements. Earth. Air. Fire. And water. Mankind conquered and then mastered each in its turn."

(Licking flames, seagulls in flight, crashing seas, etc., etc.)

"But one challenge remains. A challenge that preoccupied the philosophers of old, and has remained one of mankind's ultimate goals."

(Craggy cliff face, more crashing seas, space walk etc.)

"Until today."

(Dee^{Dee} Dee Dum Dee^{Dee} Dee etc. etc.)

"For now, in 198-, the ultimate has been achieved. The impossible dream has come true."

(Silhouette of flange valve, mousetrap, toaster or whatever on deep perspective neon grid. Register dissolve through to...the Product.

Dumm Dumm^{Deeeeeeeeeeeeeeeeeeee}

40 APOLLOS FOR BARBIE

WHEN the Mattell Toy Company introduced a new line of accessories for Barbie Doll 40 APOLLOS were sent on the road throughout the USA, all to be used in compact displays in department and specialist stores.

Deutsch Design's concept sketch for the Barbie display (above) and Aniform's Itel 3000 display (below).

The APOLLO is the ideal audio visual presentation unit for exhibition use, since it incorporates a heavy duty tape deck and all the necessary logic control to ensure continuous running, including proper homing and power down routines.

Mattell commissioned Laurence Deutsch Design to produce the show and display unit. The display consists of 3 stacked screen boxes, each containing a single projector with Meridian 25mm lens. While an APOLLO is usually used for 3 projectors directed at the same screen, it is just as capable of giving a good show when 3 projectors are directed at 3 separate screens.

The display units are moved round the country, staying in one location for about 2 weeks at a time. It is interesting that the same basic display idea has been independently adopted by others, and it is difficult for Electrosonic to know who was first. In principle we supplied similar displays years ago, but APOLLO has made them so much more practical. Aniforms in Toronto are offering a display (see photo, left) and Associated Images of Minneapolis have supplied many units (see story on page 9).

APOLLO, best seller from Electrosonic.

Apollo in Singapore

OUR Far East Representative, Tony Clynick, reports on a very active market for APOLLO Presentation Units in Singapore; well supported and promoted by our distributors Rediffusion Singapore.

Some of the applications are unusual. For instance the company Yacht Charter Cruises do their selling by inviting people to Beach Parties. During the party a promotional selling show is given from an "outdoor Apollo".

The Singapore Science Centre are a long standing user of Electrosonic equipment, and they have been quick to see the versatility of APOLLO. They use it not only for AV shows but also for Sound and Light shows. With simple interfaces it is easy to adapt APOLLO to lighting control, even using the normal slide projection production program. We are prepared to quote for special microprocessor software that allow APOLLO to be more extensively used for this application.

The Jurong Town Corporation has a visitors centre that gives daily APOLLO presentations, using a MERCURY infra red control to start the show. Other organizations using APOLLO for visitors include the Ministry of Defence and the Post Office Savings Bank. The National Museum uses two APOLLOS in permanent exhibits.

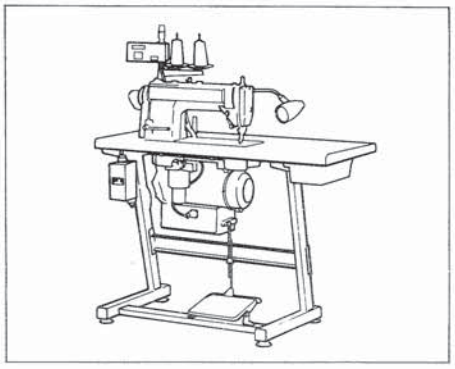
The Tugnet Ice House, built in 1830.

Iced Apollo in Scotland

SANDY Bolton, of Electrosonic Dealers Audio Visual Consultants of Edinburgh, has a lot of experience of fixed AV installations in tourist sites. He has been involved with many at National Trust for Scotland sites, not to mention several whisky distilleries! APOLLO is an ideal product for the small installation and several are now running public shows in Scotland.

The Tugnet Ice House, on the Spey estuary, is a facinating reminder that somehow the world survived before the deep freeze. Moray District Council have restored the building and have made their own APOLLO show to describe how ice was collected and stored in the winter, to be used for preserving salmon in the summer.

Michael Wolchover has produced an APOLLO show for the Clan Donald Visitors Centre at Armadale Castle. Macdonalds from all over the world make it a pilgrimage, although all visitors are welcome (unless their name happens to be Campbell).



Singer take to the road

LANCASHIRE based AV Producers ICP Audio Visual report that the Industrial Sewing Machine Division of Singer have been successfully using APOLLO to introduce new products, and to re-establish market share.

John Howell, marketing director of Singer's Industrial Sewing activities in Europe, Africa and the Middle East; approached ICP for their recommendations as to what would be the best presentation package, including a combination of pre-programmed AV and Speaker Support, to promote and reinvigorate Singer's industrial sewing image to large garment manufacturers and retailers.

The sting in the tail was that not only must the presentation put across a new "high tech" image, but that it must do so in all the countries in Singer's European, African and Middle East marketing regions. This in turn meant that each country had to have its own language version, both in respect of pre-recorded commentary and of visuals.

3 Projector Show

Timothy Ball, Director of ICP, recommended a 3 projector tape/slide production as being the medium that would give the required combination of Impact, Flexibility and Economy. He then went on to recommend the use of APOLLO as the central presentation unit. The specific points that made APOLLO ideal for the job were:

- ★ The compact and lightweight package.
- ★ Real High Fidelity Stereo Sound.
- ★ Ease of operation.
- ★ Suitability for both preprogrammed shows and manually operated speaker support sequences.
- ★ Suitable for use in all countries concerned.
- ★ Previous good experience of APOLLO with ICP's other clients.
- ★ Availability of back up service in most countries.

By late 1984 Singer had shows in place in Britain, Holland, Germany, France, Spain, Portugal, Italy and Greece. Following the success of the first "European" phase of the campaign, details were being worked out as to the disposition of shows in Africa and the Middle East.

Last words from Singer: "The Program produced by ICP is now being eagerly sought by all our managements who have seen it, in all the other countries we cover. It has done, and is doing all we hoped of it. Everyone is getting along well with the equipment set-up. We only hope that our competitors don't get to realise the benefits of using Audio Visual in their selling strategies."

Perfumed Apollo in England

PENDER Kenning and Holt (PKH) are a Birmingham based Electrosonic Equipment Dealer and program producer. Apollo based shows and installations form a major part of their output.

A recent installation is at The Cotswold Perfumery at Bourton on the Water. Here a mixed media show uses an APOLLO with 3 projectors, together with ES4025/ES4044 for effects

A still from the Cotswold Perfumery show.

switching. Yet another example of how APOLLO can form the basis of a good value display for the smaller visitors centre.

Other PKH clients using APOLLO include Lucas Girling, the City of Birmingham and the Electrical Installation Equipment Manufacturers' Association. One APOLLO system rides around in a double decker bus.

This one is used by the Midland Red Bus group. One special application is staff training; and productions include "Don't blame me, I'm only the driver", which is designed to help drivers deal politely with "difficult" passengers. The Midland Red work was carried out for agency Jukes and Cureton.

Chris Abram (left) receives gold medal from Cllr Olwen Watkins, Lord Mayor of Cardiff, and is congratulated by Lord Gordon Parry, Chairman of Wales Tourist Board.

Zulu Apollo in Wales

WHEN it is necessary to fit an AV show in to a small space the ES470L rear projection cabinet can help. In a depth no more than 60cm (2ft) you get a 90cm x 60cm (3ft x 2ft) picture. Two projectors, with special offset lenses to eliminate keystone distortion, and an APOLLO are in the cabinet to give the show.

APR of Cardiff recommended this solution to the Regimental Museum of the South Wales Borderers in Brecon. They helped to produce the show, which described the Zulu Wars in Africa, and the heroic battle of Rorke's Drift in which seven VCs were awarded. To contribute to the Museum upkeep the ES470L Cabinet is fitted with a coin mechanism for starting the show.

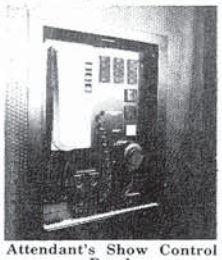
Chris Abram, Director of APR, has been at the forefront of AV Interpretation at Tourist Sites in Wales (our last issue described a major installation of his at Caernarvon Castle) and in 1983 received the Wales Tourist Board's Gold Medal for services to tourism in Wales.

PUBLIC SHOW NEWS

Multi Media at the Thames Barrier

THE Thames Barrier is the World's Largest Movable Flood Barrier. It has been built to protect London from the almost certain flooding that would otherwise result from the gradual "sinking" of London into its clay bed, made much worse by the higher and higher tides that are being recorded. Today's tides are 2ft higher than those of 100 years ago.

It was considered only a matter of time before a catastrophic flood could do billions of pounds worth of damage. Already in the 20th century many people have perished in Thames floods, and in 1965 the Thames was within 6 inches of topping the central London defences. The idea of a movable barrier was seen as both the most elegant and cost effective solution to the problem.



Attendant's Show Control Panel.

Now it is finished. A splendid sight, that looks as though the Sydney Opera House has had septuplets. The four main gates each span 61m (200ft) and each weigh 3700 tons. Of course the whole enterprise deserved, and got, a Royal Opening (by HM the Queen in May 1984) and of course, it also deserved, and got, a Visitors' Centre; complete with spectacular AV show. By chance the Thames Barrier is right next to our Woolwich Factory; the new show in the Visitors' Centre makes an unusual and interesting showroom for us.

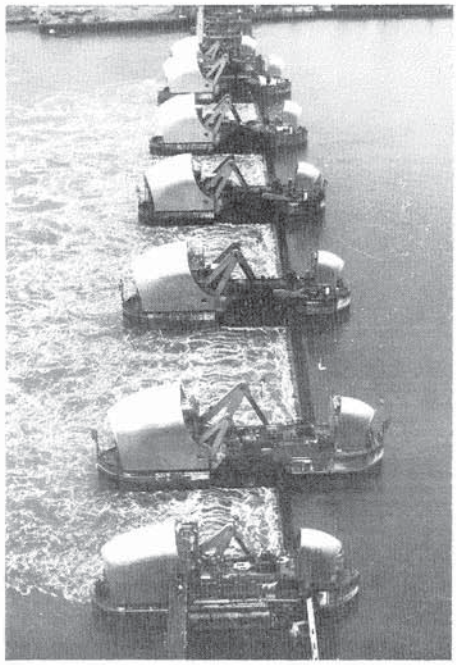
Imagination

The GLC, responsible for building the Barrier, appointed London producers Imagination Ltd. to design and execute the Exhibition and Show in the Visitors' Centre. Well known for their flamboyant product launch shows, Imagination lived up to their name in their presentation for the Barrier.

The entrance area has a permanent exhibition that concentrates mainly on how the Barrier was built. It includes models, diagrams and photographs, together with a video show that is run on 8 small monitors simultaneously. This allows several groups of people to enjoy the exhibition and the video film, while waiting for the main show.

The main show is run about every 25 minutes. Visitors enter the auditorium through stylised "pipework", almost as if they were within the Barrier itself, to the sounds of rushing water. The auditorium takes about 85 people, for whom there are "leaning rails".

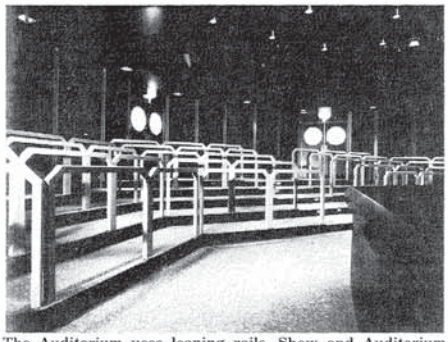
We won't describe the show in detail — you must see it for yourself, and a description of a special effect can never do it justice. Suffice it that the show uses an interesting mixture of back and front projection, using both 35mm movie and 24 slide projectors; together with complex multi channel sound, lighting effects and animated models. The sequence showing what MIGHT have happened if the Barrier had not been built (referred to by Electrosonic frequent viewers as the "panic" sequence) is outstanding.



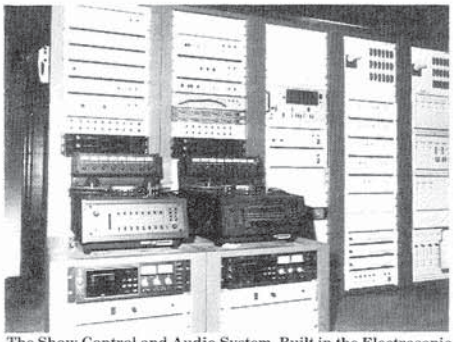
The Thames Barrier.

System contract

Imagination Ltd. sub-contracted to Electrosonic the detailed design and manufacture of the show control system, and to New Media Ltd. of London the AV or "photographic" aspects of the show. Our sub-contract called for the supply of a complete "tandem" multi-channel sound system, a wide screen movie projection system, a 24 projector multi image system, and a comprehensive system for programming lighting and effects. We also provided the entrance exhibition video system, which is controlled from the main show system to ensure that its show end coincides with the start of the main show.



The Auditorium uses leaning rails. Show and Auditorium Designers were Imagination Ltd.



The Show Control and Audio System. Built in the Electrosonic factory only 500m from the Barrier.

Here's Chicago

THE Water Pumping Station in Chicago is one of the oldest buildings in the center of the city; being one of the survivors of the Fire of Chicago. It is a well known landmark, its castle like stonework contrasting with the sleek modern buildings that surround it.

The Pumping Station is now the site of "Here's Chicago"; a multi media introduction to the city, intended for visitor and local resident alike. Originally the Pumping Station consisted of Boiler House and Pump Hall. The Pump Hall is still operational, but now occupied by compact electric pumps. The Boiler House is no longer needed for raising steam, and it is the Boiler House Space that has been used for the main part of the show.

One of the problems of putting on revenue earning public entertainment shows is that of ensuring a steady throughput and minimum waiting time. If you run a show every hour, then people who arrive shortly after a show has started have a long wait. Experience shows that they usually won't. If there is only a 15-20 minute wait, then they always will. Further if you intend that visitors should spend money in a concession as they leave the show, it is very inefficient to have a surge of people every hour; resulting in inefficient use of staff, and the likelihood that most of the audience will walk, or be pushed, right through the area without buying because of the press of people.

63 projectors

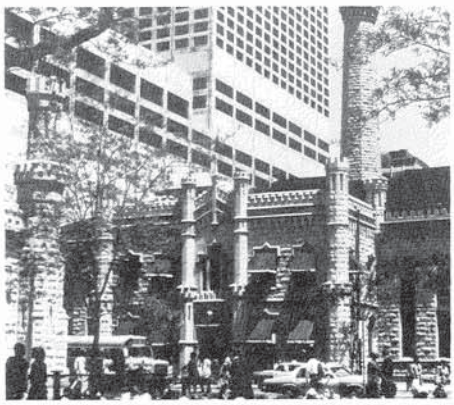
The problem is, therefore, how do you ensure frequent show starts, with the resulting steadier flow of visitors, while at the same time giving the visitors a one hour entertainment which can justify the admission charge? The solution is to have a "multiple" show, where the audience move from one section to another.

At "Here's Chicago" visitors assemble in a waiting area that includes displays of old Chicago arranged by the Historical Society. Every 20 minutes a guide escorts the waiting group, first on to a viewing gallery that overlooks the still working pumping hall. The guide explains the history of the building and the present day working of the Pumping Station. From here the audience enter a theater to see the Multi Image Show "City of Dreams".

This 20 minute show uses 63 projectors, all directed at one huge screen. Soft edge masking is used both vertically and horizontally, so at times there is one huge image, at others a kaleidoscope of small images. Projection is done from a "triple decker" projection booth. The show is run from an 8 track tape deck, using 3 control tracks and 4 audio tracks.

After this show the audience move to a second theater. Here they see a stunning 70mm movie presentation, that includes helicopter shots taken on a ride through the towers of Chicago. Although, as would be expected, the helicopter shots definitely give the feeling of flying in a moving machine; the ground based shots are remarkable for their absolute steadiness — even though the picture is being projected with a very short focal length lens. The picture width is the same as the projection distance. A combination of a Kineton 70mm projector and a special 50mm lens from Isco produce the excellent results.

"Here's Chicago" was conceived and built, and is now run, by Here's Chicago Associates. The Show Producer was Ted Hearne. Electrosonic Systems Inc. supplied all the projection and control equipment. This included Electrosonic System 4000 Multi Image equipment, Meridian Lenses, Kodak SAV Projectors and the Movie Projection Equipment.



The Water Pumping Station, home of "Here's Chicago."

LEAR'S LANTERNS

OUR last issue described the amazing and totally unautomated show presented by Doug and Anita Lear; at that time giving most of their shows on a canal Narrowboat. Now they have come on to dry land and will take their show anywhere that invites them. They have played to big audiences at Arts Festivals and special events throughout Britain; and at festivals and exhibitions in Holland, Berlin and Spain.

The show "Lear's Magical Lanterns" is based on the use of 19th century Magic Lantern equipment and original hand painted "slides". The dissolve and animation sequences are a delight, all being presented by hand operation, the only concession to modernity being the replacement of dangerous gas regulated dissolves by Electrosonic dimmers! Excellent family entertainment, and even a lesson for AV professionals. Phone (UK) 0908 605262 if you would like to book them.

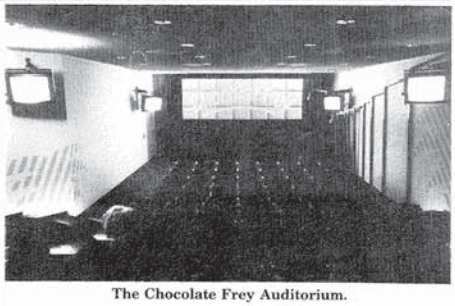
London Experience at the Trocadero

THE Trocadero is a major redevelopment of a site right next to Piccadilly Circus. It is a shopping, restaurant and entertainment complex that already includes the Guinness World of Records Exhibition referred to elsewhere in this issue. Prior to redevelopment the site was home to "The London Experience" that ran successfully for over 3 years and 15,000 performances in 1977-1980. The site developers, Electricity Supply Nominees, advised by Richard Ellis, had always intended that The London Experience should return when the development was complete, provided a suitable company could be found to run it.

At press time it seems that such a company has been found and that the project is set for immediate completion. If so, Electrosonic will be responsible for the execution of the entire project, including all building and shop fitting work, equipment refurbishment and installation, and show production. A good example of how far we can take the "turnkey" concept when necessary.

The show is in a new location at the top of the building, next to the Guinness Exhibition. Because of the new location and a revised perception of how such a show should operate on this site, the show duration is cut to 27 minutes to allow a half hour turn round. The idea being that the show forms part of a visit to the Trocadero or part of a day or evening out. The show is intended as an introduction to London, for visitors from home or overseas, and even for Londoners themselves. Simultaneous translation facilities are included as a courtesy to the many overseas visitors expected.

Although elements of the "Old" show form the basis of the "New" London Experience, all photography is up to date and the show is completely rescripted and reprogrammed. Show Production is sub-contracted to Caribiner of London with Leslie Buckland as show director and Richard Griffiths as producer.



The Chocolate Frey Auditorium.

Chocolate Frey Show

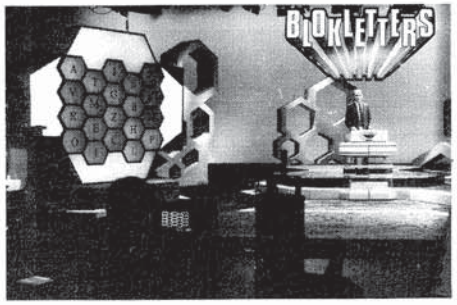
OUR Swiss Distributors, Ganz and Co., report a new public visitors centre at the factory of Chocolate Frey (Buchs and Co.) This includes an auditorium that is used to present a show that describes the process of chocolate making and the story of Chocolate Frey.

The show is of interest because it uses both video and multi image. The show is run from a U-format video recorder; one sound track is used for audio, the other for control. Video images are presented on monitors throughout the auditorium, and slide images on a big rear projection screen. The sound track is switched according to which medium is being used. The show is controlled by Electrosonic System 4000.

ELECTROSONIC WORLD

AV NEWS

SOME stories from around the world describing Electrosonic Audio Visual Products at work.



On the set of "Blokletters". The Computer Operator is silhouetted in the foreground.

TV games in Holland and Austria

QUIZ games on Television are popular with audiences, and popular with TV Networks since they are relatively cheap to produce. In our last issue we showed how German Television used a 48 projector system; now we hear of two more applications in Holland and Austria.

In the game "Blokletters" that is shown on Dutch Television the required display result could have been achieved in several ways. However the use of slide projection was chosen as the simplest to set up for monthly recording sessions. In turn this allowed the use of System 4000 Control, and, instead of using the Multi Image Production Program ESCLAMP, which would NOT have been suitable, a special computer program.

Our Amsterdam Office, Electrosonic Systems BV, wrote a special computer program to run on an APPLE computer. This program was tailored exactly to the needs of the game and effectively operated in real time according to the participants responses.

20 screens

The format is 20 hexagonal screens. When the show starts all screens flash in red and white, these colours representing the two contestants RED and WHITE. Each screen is served by two projectors, and once the game starts one projector on each screen shows a letter, as shown in the photograph.

A contestant chooses a screen by letter, and is asked a question relating to this letter. The system operator keys in to the computer W or R corresponding to the contestant, followed by the letter chosen. This causes the chosen letter to start flashing and the second projector on that screen to get into position.

If the answer to the question is wrong the operator keys in X and the letter stops flashing. If correct he keys in G, this causes the letter to flash fade down and the colour of the contestant to flash fade up, and then steady.

The aim of the game is for a competitor to complete a line of 5 coloured screens. RED is trying for a vertical line from top to bottom, and WHITE is trying for a horizontal line from side to side.

After each correctly answered question the computer looks to see if either side has completed their line, if they have, the connecting line of screens is flashed, and that is the end of the round; if not, the screens with colours flash for a few seconds and then steady for the game to proceed.

Before each recording the projectors are loaded with the series of letter combinations required for each round of the game. In fact the video recording sessions of the game record six complete shows (involving many rounds).

Austria

By chance our Austrian Distributor, Silberberger AV Teknik, had a very similar requirement; so Konrad Silberberger asked Coen Margadant, Managing Director of Electrosonic Systems BV, to provide the special computer software needed for the Austrian TV shows.

Here two different shows are shown once a month. One of them is in principle similar to Blokletters, and is called "ROT WEISS ROT" (Red White Red). The other is called "Made in Austria"; this promotes Austrian products, and contestants have the chance of winning the products shown on the projection screen if they answer a series of questions correctly.

Both shows use 20 projectors. Here the control program is an interesting mixture of ESCLAMP and specially written software. In principle opening, closing and bridging sequences are run as conventional multi image sequences from ESCLAMP; and the response sections are under the control of a special program that positions projectors as required by events.

The TV Quiz shows in Austria and Holland are interesting examples of how the standard Electrosonic ES4003 hardware can be used for special applications. In both cases the marginal extra cost of the special software was amply repaid by the saving of time and simplicity of operation on the set.

300 presentations a year at I.P.C.

AN interesting application of Audio Visual techniques and one which demonstrates the major benefits of slide based presentations, is to be found at the headquarters of I.P.C. Magazines at King's Reach Tower, close to the Thames in London.

I.P.C. is one of Europe's largest magazine publishing houses, and the Women's Magazines Advertisement Presentation Department assists the advertising sales staff to sell space to companies marketing everything from cosmetics to furniture. Clearly the high quality images produced by slides help tremendously with the Sales Presentations. And what Presentations! 300 a year, due to rise to 400 in 1985. Ninety percent of the presentations use slides; usually 2 or 3 projector single screen dissolve, but often expanded to a 3 screen format. The flexible screen and masking arrangement in the Presentation Theatre always ensures that the slides look their best.

View from the projection room in IPC's Presentation Theatre.

160,000 slides

Since presentations are tailor made for each potential client, a program is rarely repeated. This suggests huge software costs, but in fact at least 80% of most programs can be assembled from the 160,000 slides in the Department's Library. As each presentation is completed every slide is placed in order in a transparent folder, and the sequence photocopied. The slides themselves are then returned to the main store. In this way any presentation made in the last ten years can be re-assembled within a morning, exactly as it was first shown.

When he first set up the Department in 1968, Ian Fraser, Presentation Manager, only had a legacy of 30 chartboards available to him. The sophistication of hardware improved steadily until in the mid 1970's an Electrosonic ES1616 Multi Media Programmer (remember that?) was acquired to form the heart of the Presentation System.

And so things continued until early 1984 when another step forward was taken with the purchase of an ES4024 Programming System for up to 12 Projectors. The Advantages? Mainly flexibility. Programs may be made and edited very quickly, and it is optional whether they are committed to tape. Afterwards storage on floppy disc is very convenient. And, of course, even the most complex effects can be programmed in advance and called from memory at the touch of a button on the lectern.

ESCLAMP

The new equipment was supplied and installed by Electrosonic specialist dealer C.T.L. of Maidstone, who also carried out modifications to the existing control equipment in the Theatre and adjoining Conference Room.

A few days after installation, the Electrosonic Representative called for the one day teach-in always provided for new users of ESCLAMP, the Electrosonic Multi Image Production Program. Rarely can a visit have been less necessary. Presentations Executive John Whitby who had no previous experience with ES4024 had already produced three very competent programs — a tribute to ESCLAMP's simplicity.

You might ask how large is the army of personnel who organise all these presentations? Well, mention Administration Executive Linda Slade and you have met the whole team. Yes, the whole Department is run by this trio — and an APPLE!

Earthwalk

MANY users of Multi Image technique only ever see it used in the context of commercial presentations, and are not aware of its potential as a means of presenting purely photographic images or of telling a story.

Thus the usual advice is that shows should be kept short, and that even museum and permanent installation public entertainment shows should not exceed 25 minutes. However rules exist to be broken. In the USA the 60 minute presentation "EARTHWALK" has been captivating audiences all round the country.

"EARTHWALK" was the idea of David and Steve Walker. To quote from an Eastman Kodak publication "The Walker Brothers have spent more time walking than the Blues Brothers ever spent singing the blues. Muscle power alone carried the Walkers more than 5000 miles from the tip of Alaska to the Mexican border during the 14 months of June 1974 to August 1975."

They documented the journey by taking thousands of color transparencies, and a few years later created a magnificent record of their trek in a 9 projector multi image show. The show took as long to prepare as the original "walk". It took a year to persuade Orson Welles to provide the narration — in the end Welles was so impressed by the show that he donated his services. For the show is more than a record of human endeavor; it is a celebration of Planet Earth, in all its beauty, grandeur and fragility.

On tour

In the fall and winter 1983/84 the Walker Brothers took "EARTHWALK" on an Eastman Kodak sponsored tour of 80 college campuses. This was so successful that further tours have been organized. The show is run on Electrosonic System 4000 Equipment. 9 projectors represent a reasonable equipment limit for a show that must be set up in a new venue almost on a daily basis, but the length of the show does dictate tray changes — 27 full slide trays are used!

Audiences have been impressed by the power of the high quality still images and their juxtaposition with Welles' sonorous narration and the music of Vangelis, Pink Floyd, Jean-Luc Ponty and the Alan Parsons Project. Hardened Multi Image buffs have been moved by a show that does not depend on rostrum camera tricks, computer graphics or whizz bang programming, but succeeds on the strength of its story and the quality of original photography and writing.

Norway's presentation table

NISSEN Lie Consult A/S, the Electrosonic Distributors in Norway have devised an elegant "Presentation Table."

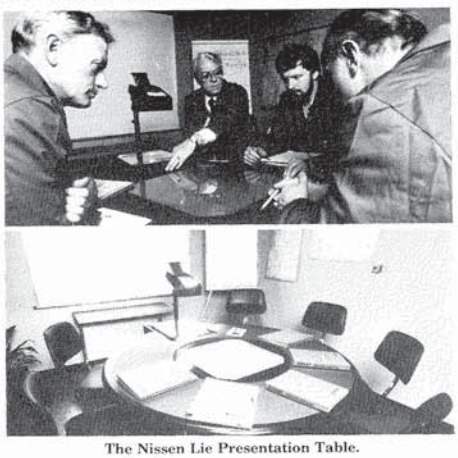
Beautifully made in hardwood it is designed to meet the needs of small management meetings and discussion groups. It is especially useful for top management in large organisations, or for specialists like consulting engineers, architects and designers.

In principle the round table can accommodate up to 7 people. There is one position for the moderator or main presenter. He has an overhead projector projecting on to a nearby screen which can easily be seen by all participants. He also has in front of him an ESRAX Random Access Slide Projector control panel.

The ES3500 Projector itself is under the table and projects upwards onto a screen set in the middle of the table. The whole screen rotates, so can be oriented towards whoever needs to examine the image closely. Obviously the projector rotates with the screen; there is provision for 270 degrees of rotation.

A further feature of the Presentation Table is the ES10 Dimmer Controlled overhead lighting. This is in two zones, one covering the participants papers, the other the centre of the table. When slides are used the centre lights fade out, and the outer lights are reduced in intensity.

Nissen Lie have now installed several of these tables and would welcome enquiries from other countries.



The Nissen Lie Presentation Table.

Stirling Moss at the lectern for Save and Prosper.

Grand Prix Roadshow

Roddy Gye, managing director of Gye Handley Associates of London, has sent us this "Everyday Story of Conference Folk"

FOR the Audio Visual Production House there is little more satisfying than following a project through for a whole season — productions, conference work, exhibitions and roadshows.

Save and Prosper, the pensions and unit trust company, had a program of sales and broker events running from September through December 1983. Gye Handley Associates were responsible for all creative and technical services.

The venue for the first event — Monte Carlo. The theme — predictable enough, but still with plenty of room for new ideas — the Grand Prix. The keynote audio visual, designed to give the sales conference a boost on the opening day, was a multivision show featuring the 1983 Grand Prix. Nine projectors with ES4003 control, stereo sound and a 24ft. screen. A format that has become standard for many sales conferences because it allows producers to achieve considerable spectacle at an affordable price.

Stirling Moss

Next on the menu came Stirling Moss, a four times winner of the Monaco Grand Prix, who, with a little help from an Electrosonic Applecue Prompting System, made the opening address.

Part of the brief called for the production of an audio visual about the conference itself, to be shown at a gala evening at the Monte Carlo Sporting Club. The show had to be written, recorded and assembled during the afternoon for showing at 9 p.m. We set up a hotel room as a makeshift production studio, complete with multitrack recorder, System 4000 and projectors, sent for a crate of Perrier wand and locked ourselves in. During the afternoon more slides trickled in from our photographers, out recording the delegates at play. We had a finished show with quite 20 minutes to spare.

The most novel feature of the review audio visual was the use of Polaroid's then new slide film, not at that time available in Europe, and flown in specially from the U.S.A. Two minutes before the show a gift was presented to one of Save and Prosper's key staff; the audience was surprised to see a shot of this included in the AV!

Exhibition

And so back to Britain for a series of roadshows round the country. This time running from an ES4603 to slightly smaller audiences.

The final event of the season was at the Wembley Exhibition, Congress 83. Gye Handley designed and produced a stand for S&P that took the motor racing theme through to its natural conclusion. At one end the 9 projector AV again, this time running in autopresent mode from the ES4603 with ES10 dimmers controlling the lighting. At the other end the most stylish video game you have ever seen.

A real racing car, a 50 inch back projection video screen, and a racing game controlled by the steering, throttle and gears of the car. ES10 dimmers interfaced with the video system to change the lighting scene at the beginning and end of each game. Needless to say there was a permanent queue at the stand throughout the exhibition.

ES WORLD NEWS

Royalty by Tussauds

THE old Windsor and Eton Railway Station has been transformed by Madame Tussauds Ltd. into a marvellous exhibition called "Royalty and Empire." It is an enjoyable family entertainment that is ideal for "rounding off" a visit to the neighbouring Windsor Castle.

The station iself has been restored to its former glory as a "Royal" station. There is a real Royal Train, filled with some of Queen Victoria's many relatives; and the real Royal Waiting Room complete with the Prince of Wales. A magnificent set piece in the covered station yard has Queen Victoria boarding her landau in the presence of many notable personages, not to mention a complete detachment of Guards.

One of the highlights of the exhibition is a fully automated theatre. Every 25 minutes or so visitors can enter an auditorium that presents a show that puts in perspective the rise of the British Empire and introduces some of the notable personalities of the Victorian era — including Queen Victoria herself, of course.

Disappearing screen

The show starts as a conventional Multi Image show. It uses 20 projectors on a wide screen and an impressive 5 channel sound track. This part of the show uses a lot of archive material and was produced for Madame Tussauds by the London office of Sound and Vision Communications. As it builds to a climax the projection screen disappears to be replaced by a stage set.

On this set the audience is introduced to the young Queen Victoria, the Prince Consort, Disraeli, Charles Dickens and other well known figures from Victorian times. The climax of the show is the old Queen Victoria rising from her chair to address the audience.

The lighting, sound switching and figure animation are all closely synchronised to the sound track. As would be expected from Madame Tussauds, the standard of figure sculpture and figure animation is very high. The show is both enlightening and entertaining, and has been much enjoyed by the half million or so people who have already seen it.

Electrosonic were proud to be appointed a main contractor for this exhibition. We supplied the main show control system; largely based on Electrosonic standard products.

The Automatic Show Control System (above) and the Station Yard set piece (below) at Royalty and Empire.

The Multi Channel Audio System for the automatic show. Electrosonic have delivered many such show sound systems round the world.

Undersea Fantasy at Sea World

IN our last issue we announced that we had been awarded a contract to Sea World of Florida Inc for the supply of a fully automatic show control system. The show has now been running for two seasons. It is an excellent example of the way in which Electrosonic can integrate all the technical requirements of a public entertainment show to give both good value for money and a system that is reliable and easy to operate.

The "Undersea Fantasy" is a 23 minute show that combines live action, animated figures, movie, multi image and programmed effects lighting. In the peak season the show is presented 16 times a day. The auditorium seats nearly 900 people, and includes a 90ft wide stage.

The show starts with a movie sequence. A schoolgirl is seen in her room and she is musing on the subject of her homework project. She has been set an essay on what happens under the sea. She consults her favourite doll, a Sea World character, and wishes he could give her some advice.

The next thing she knows is that she has been transported undersea. The movie screen disappears in a cloud of smoke, and the full 90 foot stage is filled with a magnificent set of an undersea coral reef. A huge black rear projection cyclorama gives the impression of being "in the water." Here the girl meets all sorts of undersea characters, the Turtle, the Sea Otter and the denizens of the reef.

The Stage Set of Undersea Fantasy.

Mixed live and automatic

The show is a clever blend of live action and automatic presentation. The girl, once off the movie screen, is of course, live. So are the main characters. They are dressed in marvellous costumes, which include hand operated actuators for working mouth mechanisms, flippers etc. The coral reef Polyps and Giant Clams are pneumatically or electrically actuated.

The show is also an entertainment with some education. The lively songs describe how the coral reef is built up, and how the undersea food chain works. They are well illustrated by multi image sequences that come up on the cyclorama when appropriate.

The whole show is run from magnetic tape. This carries the multichannel sound track, and all the control information for operating the lighting, multi image, movie and effects. The character figures mime from prerecorded voices on the tape. However an interesting point is that the girl's voice is live (from a radio microphone) she has to know her part really well to "fit in" with the recorded sound. The result of this combination brings amazing life to the show — most of the audience are totally convinced that the whole show is live.

This trick required careful balancing of the sound to ensure that the sound levels of the live and recorded voices matched. The stage lighting also helped enormously to give the show a dynamic. Electrosonic's contract included both the design and the supply of the lighting system. This had the great advantage that although hundreds of luminaires were used, not one of them was wasted. Only what was absolutely needed for the show was installed. All lighting was controlled by 60 Electrosonic ES6090 dimmers under System 4000 programmed control.

Teamwork

"Undersea Fantasy" was one of the happiest jobs we have worked on. It was one of those occasions when a group of professionals each know what needed doing, and where there was complete trust that each would deliver. We can't mention everybody but the story would not be complete without referring to Ken McCabe of Sea World who wrote and produced the show. Lyn Gillam, Sea World of Florida's Director of Entertainment who could not have been a better client. David Hersey, famous for lighting "Cats," "Evita" and "Starlight Express," to whom we subcontracted the lighting design; and Robert Kirchgessner, independent consultant to Sea World, who specified and supervised the overall technical installation.

Electrosonic Systems Inc., our U.S.A. office, carried out the project; it included the system engineering, manufacture and supply of the complete sound system, lighting and lighting control sytem, movie and multi-image projection systems, and overall show programming and performance management systems.

German exhibition in Japan

IN April, 1984, a major Industrial Exhibition was mounted by German Industry in Tokyo. Called the "Deutschen Leistungsschau" it was aimed at the top level of Japanese buyers and opinion formers. Several exhibitors chose to use high quality slide presentations, either as specific AV shows with Japanese commentary, or as a means of giving a good impression of their all round capabilities.

Typical of the latter was the prestige 9 projector show made for Klockner-Humboldt-Deutz by Von der Belling Pragma GmbH. This used music and fine photography to convey the range of activities of the group. (The show is now in a fixed installation at KHD's Head Office in Cologne).

Other Exhibitors using AV included Leybold-Heraeus with an 18 projector show, Siemens with an APOLLO show, Goebel with a small ES3003 show and VDO using two GEMINIs. Most of these exhibitors hired the necessary equipment from local Electrosonic Dealers Ginza Sakuraya (Dealers of our Main Distributors in Japan, Nagase and Co.).

Because of the importance of this exhibition and the possible problems that could arise installing hired AV equipment a very long way from home, Electrosonic GmbH arranged some extra service for their customers. This was in the shape of Tony Clynick, Electrosonic's Far East representative. He made the German Exhibition the occasion of one of his frequent trips to Japan, and was able to provide a valuable liaison service.

The KHD Exhibit at the German Exhibition in Tokyo.

Raz de Marée Electrosonic sur Biarritz 84

The Technitone Team that staged the successful shows in Biarritz.

LITERALLY translated "an Electrosonic Tidal Wave over Biarritz 84." The headline of a Press release we received from our French Distributors Technitone shortly after the Biarritz Festival in June, 1984. The release went on to say:

"In France the most important event of the year for Multi Image Production is undoubtedly the Biarritz Festival.

"Organised by the Centre National du Patronat Francais (CNPF), this event allows French Industrial Customers to see a selection of 40 Multi Image Productions over 4 days, all with the theme 'L'Image de L'Enterprise'; and shown on the 4 makes of Multi Image control equipment available on the French market.

"Twenty nine of the Festival Entries were shown on Electrosonic Equipment.

"The Grand Prix of the Festival was awarded to 'Les Enfants de la Puce,' an ode to micro computer technology. This 15 projector show using System 4000 was directed by André Chante of the production company ARC for the Banking Group of Le Cetelem.

"The Prix de la Ville Biarritz was awarded to 'An 2000 moins 16.' Another 15 projector System 4000 show, this time directed by Martine Fassler for the French Hoechst Company.

"In all 9 prizes were awarded this year. Seven of the prize winners used Electrosonic System 4000.

"The Technitone technical support crew consisted of 7 people, they provided 15 cubic metres of equipment! The French Electrosonic Team demonstrated once again their commitment to supporting all Audio Visual Production Companies."

Open Air Multi Image Screen near Ayers Rock.

Multi image at Ayers Rock

THE best known landmark in all of Australia is Ayers Rock. Every year thousands of visitors make their way to the middle of Australia to see this geological marvel which has its folklore, both ancient and modern.

Our Australian distributors, Electrosonic AV Systems of Sydney, report that now visitors can not only see the Rock, but at the nearby Yulara open air amphitheatre they can see an evening 15 projector multi image show run from an ES4603 Presentation Unit.

The show was designed and produced by Shirley Spectra. This company has a lot of experience of permanent AV installations, and one of their most successful, the multiple show system at the South Australia Constitutional Museum in Adelaide, has been reported in previous issues of 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.