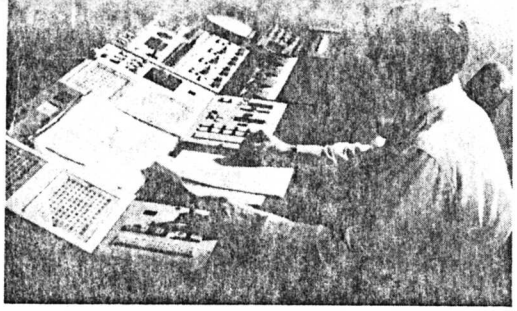

Why Southern TV chose Q-file.

Up to three and a half million viewers tune in to Southern Independent Television each evening. Many of their programmes are seen by the ITV network. Tony Blackburn's show for example.

When 'Time For Blackburn!' goes on network, in just 30 minutes the lighting operator has to manage a lighting plot with sixty changes—each one of them involving one of over a hundred thousand possible combinations of lights.

It's a responsibility. You don't only have to be a great lighting operator, you also need nerves of steel. Or 30 million viewers will be adjusting their sets!

But when the complexity of the job means that a man needs to behave like a computer to cope, there's only one answer.
Get a computer to help him.

That's just what Southern did. They now operate Q-file the world's first lighting control system to be installed in a TV studio, and to be controlled by an electronic computer.

It was pioneered by The Thorn Group.

"Directing the lighting in a TV Studio with Q-file provides an extra capacity, versatility and degree of control, as different as flying is from motoring."

A quick look around the 'aircraft'.

Q-file studio lighting control has three main virtues, and provides a degree of versatility that no other theatre or studio lighting system gives you.

1. It harnesses the techniques of an electronic computer to give instant control over a complete lighting system of up to 380 circuits, and to manipulate accurately the full capability of these circuits.

2. It enables any 'plot' based on combinations of these lights to be recorded, so that it is instantly available at the press of a button. It can store up to 100 of these memories, so that they can be recalled in any order required, at the control of the operator.

3. It provides both these facilities to the operator, with the complete activity of the system under direct push-button control, while he is sitting at a simple console, which can be as small as 2ft by 1ft.

The Fortunes appear in Southern ITV's pop music series "Time For Blackburn!"

"You spend a lifetime mastering the art of lighting. Then suddenly a console offers you twice the range of lighting effects you've ever before handled. It's fantastic."

The virtuosity of Q-file in terms of exact definition of lighting effects.

Q-file not only provides a fast and accurate selection of lighting values for each lamp, but in addition almost unlimited variety of lighting effects and automatic fades and crossfades.

Fade or crossfade effects often involve progressive manipulation of one or more levers at a rate dependent on the operator's memory of the rehearsal, aided possibly by a stop watch. A long smooth fade is extremely difficult to achieve by this means. Additional effects required during the fade present problems and may necessitate the use of a second operator.

In the Q-file system a fade change is an automatic process which looks after itself once the "GO" button is depressed. Fade times, between one second and one hour, are predetermined by means of two calibrated levers, one governing the time for fade up and the other for fade down. These operate quite independently and can be readjusted during the fade should the pace of the production depart from that rehearsed. The up and down fades can be started simultaneously in a straight crossfade or separately initiated where a staggered effect is required. Either process can be stopped at any time and restarted at the interrupted level.

Having initiated the fade, the operator can either sit back and admire the effect or perform such additional effects as the introduction of "practical" lights. If required, the added lights can be subsequently removed by the simple act of subtracting.

If a progressive "build" of lighting is required, any number of new lights can be added by means of a continuous fade sequence.

Another dramatic contribution is the accuracy of lighting control Q-file has made possible. Adjustment of the iris on camera could easily become redundant!

Tony Blackburn introduces his own Southern ITV pop music series "Time For Blackburn!"

"The instant memory bank, which Q-file provides, has taken the panic out of live transmission."

How Q-file makes recording Stars!

While the increased range of lighting effects achieved by Q-file is in itself a major step forward in the business, the outstanding contribution Q-file has made has been the ability to record a lighting plot of anything up to 380 lamps at varying intensities, so that when a definitive rendering of an effect has been attained, it is instantly recorded at the touch of a button, and can be recalled any number of times without in any way affecting it.

At the same time, the complete lighting system is accessible to direct manual intervention, so that a scheme can be altered during transmission, without affecting the basic 'memory' for future use.

This enables you to produce effects that were previously impossible. For example, you can change the lighting as the artists move round on set, so that you avoid boom-shadows. Similarly the ability to balance lighting for a moving camera is immensely useful, and is something which before was virtually impossible.

Before Q-file, it was extremely risky to try changing a lighting scheme during transmission, for fear of losing the original plot. Now it can be undertaken without any such risk occuring.

Thanks to the self-adjusting level controller, the Q-file system eliminates the need to match the manual fader to a memorised channel level before taking direct control. Even a circuit whose level is changing during a fade can be instantly removed from the fade process and manually controlled without jumps or other disturbing effects.

Richard Coleman and Anthony Newlands in Southern ITV's six part suspense serial "Letters From The Dead".

"Q-file can't think for you, but it carries out your instructions almost as quickly as you can think of them!"

How operators have adapted to the new era in studio lighting.

Every possible lighting effect is there at your demand at the touch of a button. It's the easiest thing in the world to control. You can sit at the console, watch the monitor screens, and in general you've only to worry about two buttons. All the refinements have been worked out at rehearsal, and they're stored in the memory of the system.

There's a big difference between working surrounded by three complete banks of controls, dodging about to keep up with the show; and on the other hand sitting here controlling it from an armchair.

The more one uses Q-file the more one likes it. The process of controlling it becomes almost automatic.

Esther and Abi Ofarim in Southern ITV's pop music series "Time For Blackburn!"

"There's not any limit, so far as one can see to the technical virtuosity of the Q-file system."

Some of the additional features which Q-file offers.

Visual Display of Lighting information.

The system is normally supplied with an information display panel or mimic. This is a compact assembly of miniature lamps which illuminate "windows" in a glass panel. These windows carry circuit or channel numbers which light up when the corresponding stage or studio lamp is energised. The window illumination is white in colour and its brightness varies with that of the circuit with which it is associated. The operator is therefore presented with a pattern of illuminated numbers which indicate the functional state of board at any time.

Under different circumstances the mimic window can also display a green light whose function is explained under the next heading.

Blind Plotting and Reading of Memories.

Having set up an actual pattern of lighting for use on the stage, the operator can plan ahead by preparing a memory containing his next cue without disturbing the status quo. A single push-button transfers channel selection from the "white" to "green" or preset state and the operator can then select and adjust circuits in terms of the green lights in the visual display, superimposed on the existing white light information. The dimmer levels are read from the level control lever as each circuit is selected. The resulting "green" plot can then be memorised and in due course recalled in the "white" state for actual use and fine adjustment.

By the same token, the selection and level of circuits in any existing memory can be examined by recalling the memory in the "green" state and reading the visual display in conjunction with the level adjusting lever. The latter will automatically reposition itself to indicate the memorised level of any selected circuit.

Automatic Sequencing of Memories.

In the basic system the selection of memories is a matter of depressing the appropriately numbered file buttons, and even this simple task can be eliminated where the programming and recall of memories follows a numerical sequence. If the SEQ button is depressed, any file action, e.g. cut, add or subtract, automatically selects the next memory in readiness for the following cue.

Auto-Add.

This concise title refers to a unique labour-saving facility. In practice, it often happens that the same group of lamps is used in many memories at the same dimmer levels, and any readjustment has to be made effective in all memories containing these particular lamps. If such a change is made at a late stage of a complex production, retrospective action would normally be necessary regarding the correction of many previously prepared memories. Auto-Add avoids the necessity for individual memory modification by automatically substituting the new information whenever a memory containing the affected circuits is recalled for use.

Auxiliary Faders.

This useful accessory consists of a small secondary panel mounting ten manual fader levers and a circuit routing selector on the lines of a cribbage board, which by the insertion of small plugs, enables any fader to be given over-riding control of any lighting circuit or combination of circuits. This device has three valuable functions. Firstly, it provides a convenient means of controlling auxiliary lights which may be on throughout a production and do not change during the main lighting cues. Examples are orchestra lights and camera head lights, and the use of this panel avoids the need to include such circuits in the electronic memory process. Secondly, it caters for those occasions where unpredictable stage

Mary Maude in Southern ITV's children's adventure serial "Freewheelers".

action requires continuous manual control of selected circuits. The use of follow spots is a good example. The third function of this unit is to provide independent stand-by control of all circuits in the event of the electronic system becoming inoperative due, for instance, to a control room power failure. A stand-by group of circuits can be plugged up in advance and, in an emergency, these can be brought into action by raising a single fader. With appropriate allocation of circuits to faders, a number of effective basic cues can be obtained by this simple means.

Tom Owen in Southern ITV's children's adventure serial "Freewheelers".

It's not a question of whether a TV Station can afford Q-file - It's whether they could afford not to."

The advances of other technologies in broadcasting have made Q-file a necessity. The advent of colour is only one example.

As the size of TV studios, and the sophistication of their equipment meant increased capital costs, it became vital that means should be found to maximise on the utilisation of equipment and space.

Q-file has reduced both the time and space needed for TV lighting and thereby increased the productivity possible in the studio. On these grounds alone, it has become an economic necessity.

Postscript on Q-file.

British Lighting Industries are grateful to Southern Independent Television, for giving them the opportunity to photograph their installation, and describe their experience with the system.

Naturally Q-file is being installed by many other major TV networks as well. The BBC were the first to install Q-file and their satisfaction with the control system has resulted in their commissioning three further Q-files.

As a major world-wide breakthrough in lighting control techniques, the influence of Q-file will affect not only TV lighting, but also installations in theatres, and opera houses. A new era in lighting has really begun.

British Lighting Industries Limited THORN

Theatre Lighting Division, Great Cambridge Road, Enfield, Middlesex. Telephone: 01-363 5353
A member of the Thorn Group.