

**ROCC**

***MICHAEL ALDRICH***

***PRESS CUTTINGS***

***JUNE 1993***

# Ergonomics for Managers

by M J Aldrich

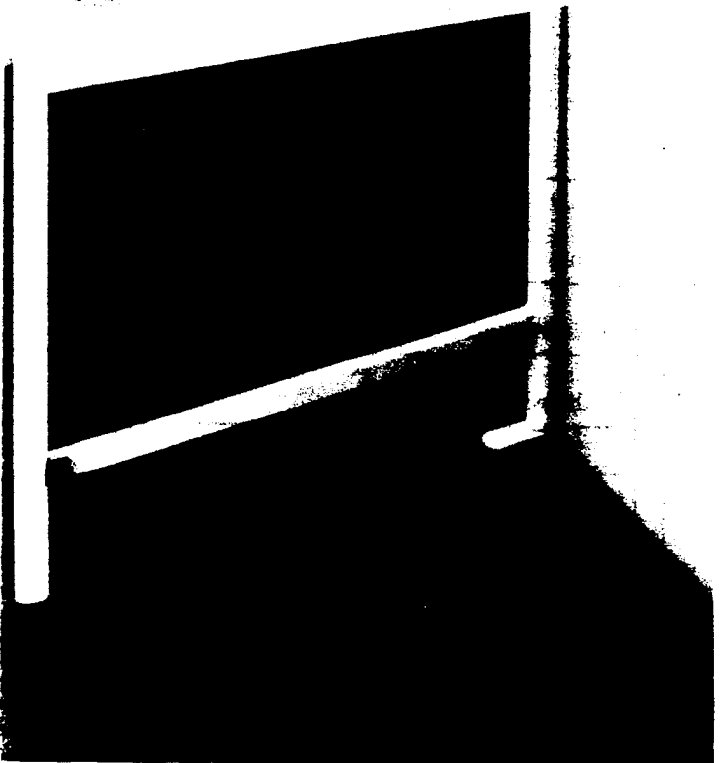
Chairman ROCC Computers Ltd

**P**ublic interest in workplace ergonomics in the context of the use of automated IT equipment in the office is a relatively recent phenomenon.

This interest has been fuelled by media-publicised court cases, heartrending human interest stories and new evidence of causal relationships between alleged medical complaints and working methods and environments. New medical words have become common vocabulary in the office — tenosynovitis, carpal tunnel syndrome, tendonitis, epicondylitis — and public and government concerns have been generated throughout the world. New health and safety legislation and new words like 'office ergonomics' have appeared. But what has actually changed?

There is nothing fundamentally new. Tenosynovitis was first recognised in the 19th century when clerical workers who had to write perfectly formed copperplate handwriting developed writer's cramp. Assembly-line workers in the auto industry, poultry packers, bricklayers, painters and decorators and people in most repetitive or high-speed production line style of occupations are prone to repetitive strain problems and/or injuries (RSI).

What is new is that the proliferation of computer terminals and personal computers in offices has brought the problems to public attention. In particular in England between September and December 1988 24 cases of RSI were



reported among journalists on the *Financial Times*. In the western world nothing is more widely publicised than issues which effect people working in the media.

Within a very short time, newspapers and the courts were full of RSI cases — mainly of people working with word processors but also some data entry professionals. Public concern triggered research, analysis and government legislation. Market forces also have had a large part in turning a problem into an opportunity for better working environments, a healthier workforce and improved training. In turn these provide the basis for better quality and productivity.

The ergonomics issues are primarily about applied commonsense. Making the equipment fit the people is more sensible than making the people fit the equipment. Recognising that the human body comes in various sizes, shapes and strengths and being prepared to accommodate diversity is a good start towards optimising people performance. Making the environment appropriate to the work to be done is hardly new. Noise, lighting and temperature, humidity and ventilation levels regulations have long been issues in the factory. Finally, organising the job and work to avoid fatigue, boredom and stress is a priority for any management worth the name. If you have poor performance, accidents, ill health, high absenteeism and staff turnover and poor staff relations you probably have poor workplace ergonomics. And if you have poor ergonomics you are probably violating some health and safety regulations. Sooner or later something extremely disagreeable will happen.

Health and safety legislation however doesn't address management problems. It sets some limits on how far you can endanger yourself and your colleagues in the workplace. The new legislation on display screen equipment\* is welcome because it establishes and codifies much good practice but it could and in future doubtless will go much further on human/machine interface, continuous in-service training and developing appropriate work group organisation. Health and safety is a way of working efficiently and effectively while focusing on the best ways to get quality and performance.

Many managers are already familiar with the principles of motivating, retraining and staff development, job rotation schemes, etc. These are the same principles that apply to designing jobs in the office. Efficiency and employee satisfaction can be optimised together — one does not need to be at the expense of the other.

Essentially a well designed office job should form a coherent task. The job holder should feel a sense of worth. There should be a variety of methods used in the job, and there should be the use of some discretion in the carrying out of the work.

An appropriate feedback mechanism for monitoring and reviewing performance must be built into the job and the office worker should carry attributable responsibilities for the outcome and control of the work.

In some circumstances it is best to organise work around work groups who are empowered to prioritise and schedule the work, maintain and improve quality, rotate jobs, improve interfaces with other appropriate work groups, recommend major job improvements and deliver pre-agreed service levels.

Perhaps the problem for office managers is where to start. The first step is to comply with the new legislation, effective 1 January 1993, on display screen equipment health and safety and carry out the mandatory assessment of each office workstation. This will provide some basic data on ergonomic compliance and indicate immediate priority actions to stay within the law. Otherwise, a visit from an inspector could land you in court. Every organisation employing five people or more is subject to the legislation.

The next step is to gather all personnel data on record — including health and absenteeism records, appraisal data, etc.



Next gather all available performance and cost data for the department — volumes, service records, peer review material etc.

Then correlate the results of the first three steps and identify the possible problems and the potential opportunities. Talk to the people, clarify the issues and build an agreed plan for improved performance, satisfaction, safety and review. You will be surprised how easy it is to do better.

Happy, healthy workers turn out the best work.

\* The European Directive on display screen equipment (90/270/EEC) has been transposed by the Health & Safety Commission as Regulations under the Health & Safety at Work etc Act 1974 (specifically 'under Section 15(1), (2), (5) b and (9) of, and paragraphs 1(1)(a) and (2), 7, 8(1) and 14 Schedule to' that act).

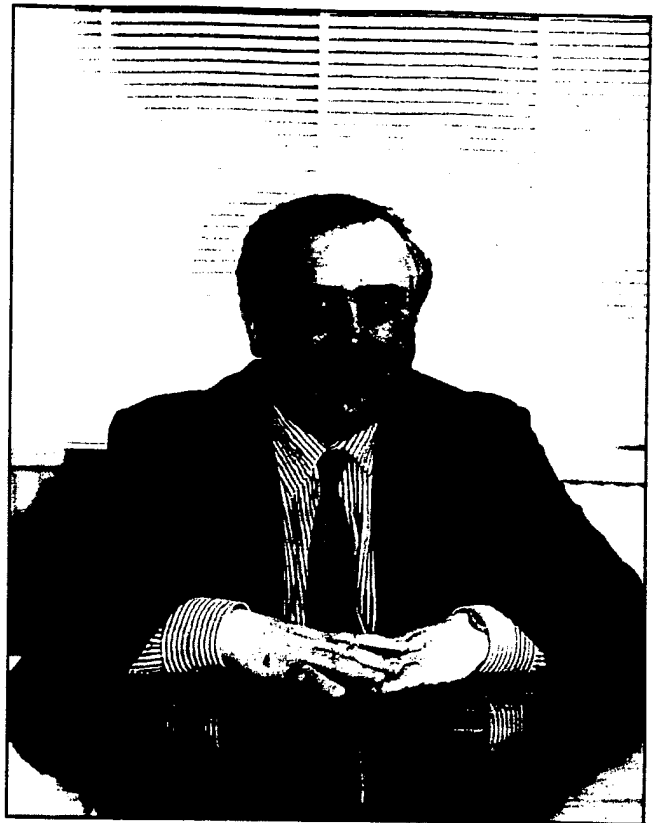
## The Author:

Michael Aldrich is chairman of ROCC Computers Ltd - a leading information technology company specialising in information, office and communication systems and technical and professional services.

Graduating from university in 1962, Michael has spent his career to date in the computer and electronics industries, joining the board of Redifon (later Rediffusion) Computers in January 1977 after 15 years with the computer operations of the American multinationals Burroughs and Honeywell. He also served as chief executive of a number of Rediffusion companies as well as chief executive of Rediffusion Computers.

Mr Aldrich was a member of, the then, Prime Minister Margaret Thatcher's Information Technology Advisory Panel (1984 - 1986) and was advisor to the Confederation of British Industry on information technology from January 1982 to December 1983.

He is past president and a fellow of the Institute of Information Scientists, a fellow of the British Computer Society



and a companion of the British Institute of Management. He is currently a member of the council of the Tavistock Institute of Human Relations and was elected chairman in 1989.

### Managers Specialist Group

One Day Workshop

Wednesday 7 July 1993

at the Holiday Inn, London-Kensington

### Effectiveness in Organisations Machines and People

There are many variables which bear on the effectiveness of organisations. Two are considered in this one day workshop which has been organised for members of the Managers specialist group.

#### Total Productive Maintenance

The first part of the day will involve a presentation on Total Productive Maintenance (TPM) which is about new ways of working around improving overall machine performance and focuses on performance and quality. The approach has been developed in Japan and North America over the last 20 years and is increasingly finding its way into European Industry.

#### Renaissance of Job Evaluation

In contrast, how can machines support more effective people management? Many organisations are reviewing their job evaluation schemes to ensure key elements of people's jobs (and behaviours) are reflected in the way they are rewarded. Computers provide an opportunity to make the process of job evaluation more efficient and effective as well as providing a more flexible support to the business.

The fee will be £80 for IMS / Group members

£90 for non members

Further details and booking forms can be obtained from the Conference Department at Head Office:

Tel 081-363 7452 Fax 081-367 8149

## OXFORDSHIRE BRANCH

Tuesday 15 June - 7.15 pm

at

Foxcombe Lodge Hotel

Boars Hill, Oxford

## WHY CONTINUE IN MANAGEMENT SERVICES?

Speaker

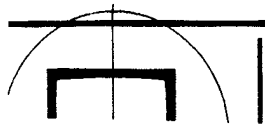
Ron Whitley HonFMS

IMS Chairman

A controversial address to add spice to our AGM and Social Evening - come along and ask questions

A buffet supper & refreshments will be served

Book your place, by 8 June on  
071 936 3000 Extn 3190



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JUNE 93.

# HEALTH & safety

s u p p l e m e n t

## Ergonomics for managers

Public interest in workplace ergonomics where the use of automated IT equipment in the office is concerned is a relatively recent phenomenon says **Michael Aldrich**.

**M**edical complaints allegedly caused by working habits in the office environment, heart-rending human interest stories and the legal battles that followed, have all fuelled interest in ergonomics in the workplace. New medical words have become part of the common office vocabulary: tenosynovitis, carpal tunnel syndrome, tendonitis, epicondylitis. New health and safety legislation and new words such as *office ergonomics* have appeared. But what has actually changed?

There is nothing fundamentally new. Tenosynovitis was first recognised in the 19th century when clerical workers who had to create perfectly formed copperplate handwriting developed writers' cramp. Assembly-line workers in the auto industry, poultry packers, bricklayers, painters and decorators and people in most repetitive or high-speed production-line style of occupations, are prone to repetitive strain problems and/or injuries (RSI).

What is new is that the proliferation of personal computer systems in offices has brought the problems to public attention. In particular, in England between September and December 1988, 24 cases of RSI were reported amongst journalists on the *Financial Times*. In the western world nothing is more widely publicised than issues which affect people working in the media.

Within a very short time, newspapers and the courts were full of RSI cases - mainly of people working with word processors, but also including a number of data entry professionals. Public concern triggered research, analysis and government legislation. Market forces also have had a large part in turning a problem into an opportunity for better working environments, a healthier workforce and improved training. In turn, these

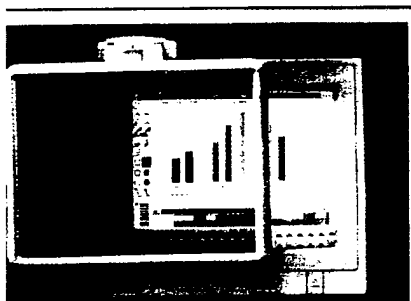


Just because the operator is comfortable does not make it legal.

provide the basis for better quality and productivity. Ergonomic issues are primarily about applied common sense. Making the equipment fit the people is more sensible than making the people fit the equipment. Recognising that the human body comes in various sizes, shapes and strengths and being prepared to accommodate diversity is a good start towards optimising people performance.

Making the environment appropriate to the work to be done is hardly new. Noise, lighting and temperature, humidity and ventilation level regulations, have long been issues in the factory. Finally, organising work to avoid fatigue, boredom and stress is a priority for management.

If you have poor performance, accidents, ill-health, high absenteeism, staff turnover and poor staff relations, you could have poor



### Filter out VDU problems

A new range of Accodata VDU screen filters is developed to offer protection from low-level radiation and flicker. The anti-glare filter's glass has five layers of anti-reflective coating which virtually eliminates flickering and glare effects. For high resolution colour, mono or erwhite screens, the anti-radiation filter provides up to 99 per cent protection from potentially harmful low-level ionising radiation and virtually eliminates the electric field. Two mesh screen filters cater for low resolution monitors; an anti-glare model is suitable for mono colour monitors or where glare is harsh.

Circle No 201 on the product card



### Glass screen filters

Esselte Dymo has introduced a range of low cost glass screen filter; an anti-static version and an anti-glare model. Fitted with a universal (non-Velcro) hanging system to give maximum adjustability, they can be used on different sizes and types of monitors including both flat and curved screens. They can also be turned around for use on an Apple Mac A4 portrait monitor. With multi-layer optical coatings on both sides and a conductive coating on the rear surface, this range gives optimum anti-glare, anti-static and anti-radiation protection.

Circle No 202 on the product card

# Are you sitting uncomfortably?

New EC regulations have come into force affecting the use of display screen equipment (DSE). **Stan Church**, considers the implications for employers and DSE users.

**J**ust in case you missed it, new EC regulations concerning employers' obligations to staff working with display screen equipment, were introduced by the Health and Safety Executive (HSE) on 1 January, 1993, and published in *Health and Safety (Display Screen Equipment) Regulations 1992*. Any employee who, as part of his or her job, uses DSE, whether in the office or off-site, on a daily basis for at least one hour or more, is directly affected by the new legislation.

Regulations apply to all new workstations put into place from 1 January 1993 and all existing equipment retrospectively from 1 January 1997.

Assessments and subsequent reviews must be carried out on all workstations in relation to the requirements set down. These would normally be carried out by a trained line-manager or health and safety personnel and recorded manually or electronically.

## The requirements

- The screen must tilt and swivel, be easy to read and offer a stable picture with no flicker; be easy to adjust for brightness, contrast and viewing angle; and not have any reflection or glare.
- The keyboard must be separate from the screen and tiltable. The layout must be easy to use with easy to read labels and a matt surface, with sufficient desk space to provide hand and arm support.
- The desk must be large enough for the flexible arrangement of computer equipment and paper documents, and have a low reflectance surface. There must be an adjustable document holder and enough space for the user to change position and vary movements.

• The desk must be stable and comfortable and allow easy freedom of movement. The seat and back height and tilt must be adjustable. A footrest must be available on request.

- Glare and reflections must be prevented. Artificial lighting should provide appropriate contrast between computer screen and background. Windows must have blinds or curtains.
- Noise should not

be loud enough to distract attention or disturb speech.

- Software must be easy to use and appropriate to users' needs and experience. Performance checking without users' knowledge will be illegal.
- Heat, humidity and radiation emissions must be at adequate levels.

## For employees

Jobs should be designed to offer periodic breaks or changes of activity to reduce the time at the display screen. Where spells of intensive screen-work is undertaken it is recommended that breaks of 5-10 minutes be taken after every 50-60 minutes.

All employees using DSE have the right, at their employer's expense, to an initial eyesight test plus subsequent tests at regular intervals as recommended by the optometrist. Basis specification spectacles must be provided by the employer to correct any defect detected at the viewing distances applicable to display screen work.

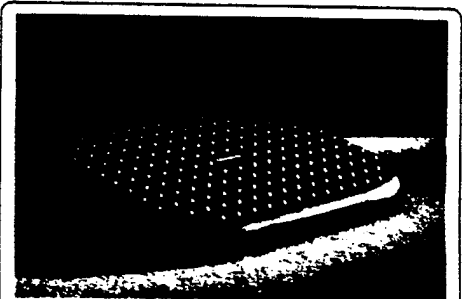
Each employee must be given appropriate health and safety training in the use of any workstation, or whenever it is substantially modified.

So little radiation is emitted from today's design of DSE that no special precautions are required.

## More details

HSE's *Guidance on Regulations for Display Screen Equipment* is available from HMSO's Bookshops or the HMSO Publication Centre, PO Box No 276, London SW8 5DT: Tel 071-873 909. The subjects covered include:

- adequate lighting and contrast, no glare or distracting reflections
  - noise distractions
  - leg room to allow postural changes
  - window covering
  - software: appropriate to task and adapted to user
  - screen: stable image, adjustable
  - keyboard: usable and readable
  - work surface: flexible and spacious,
  - work chair: adjustable
  - Footrest
- Stan Church is the Senior IT Sales Consultant for HMSO**



## ComfortTread foot rest

The *MicroComputer Accessories M6840* ComfortTread foot rest has been voted Office Product of the Year by the International Stationery Press Association. *MicroComputer Accessories* believes the award puts its product in line to meet the EC directive stipulation that "a foot rest must be made available to anyone who wishes for one."

The M6840 ComfortTread combines two functions in one: support for the lower limbs and a massage surface for tired feet and only requires light foot pressure to alter the angle for the most comfortable position.

Circle No 208 on the product card



## Pulsafe rejects use of VDU spectacles

Pulsafe is not producing a range of safety spectacles for display screen operation. The company's decision comes with the growing volume of misleading information relating to possible dangers to eyesight and the publication of a report by the Radiological Protection Board, commissioned by the Health and Safety Executive. The report concludes that national and international limits for continuous occupational exposure to electromagnetic radiation are not exceeded when working with VDUs.

There is agreement, however, that continuous VDU operation can cause eyestrain and Pulsafe recommends that anyone considering wearing tinted spectacles should seek professional ophthalmic advice.

Circle No 212 on the product card



*This chair might have been bought before the regulations were introduced but from 1997 it must comply with them.*

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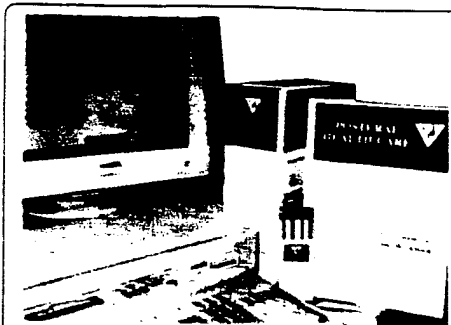
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**Michael Aldrich is  
Chairman and  
Chief Executive of  
ROCC Computers**



### CBT for VDU users

*Postural Health Care from Thames Valley Training Agency is a computer-based training pack designed especially for VDU users to ensure their well-being at the workstation and to meet EC regulations.*

*The programme provides clear, comprehensive information and advice on posture and positioning equipment. It encourages VDU users to participate actively in making their environment more comfortable. FlexaStretch™ exercises also help to maintain a healthy body, free from postural discomfort.*

Circle No 204 on the product card



### Safety videos

*Transfer Training Europe is offering a two-video package on the UK VDU safety regulations complete with wall poster and three different supporting booklets. The first video is aimed at managers, making them aware of their legal responsibilities, while the second video is designed for VDU users and can be used as part of a formal course or in a standalone capacity.*

*The package is available for a free preview in your own office, as are other packages on manual handling, office safety, use of fire extinguishers and the Health and Safety At Work Act.*

Circle No 205 on the product card



### Rexel wrist supports

*Research suggests that long-term computer work can lead to strain or injury, such as Carpel Tunnel Syndrome. The risks of sustaining an injury of this nature can be significantly reduced by the use of a wrist support.*

*Rexel offers a standard wrist support, manufactured from high impact foam and an adjustable wrist support that can match keyboards of varying heights (19-44mm). Non-slip pads hold the wrist rest firmly in place.*

Circle No 206 on the product card