# Conference Programme

Management Conference

Edinburgh, Scotland

17-19 April 1983

The Butler Cox Foundation

The Butler Cox Foundation

# **Management Conference**

Management priorities for 1983 George Hotel, Edinburgh 17 — 19 April 1983

Contents

- 2 Introduction
- 3-4 The Conference agenda
- 5-14 Summary of presentations
  - 15 Registration for the Conference
  - 17 Registration form

#### Introduction

The thirteenth Butler Cox Foundation management conference will be held at the George Hotel, Edinburgh, Scotland between 17 and 19 April 1983. The theme of the conference is "Management Priorities for 1983", and this document describes the overall conference programme that we have organised. It also provides a synopsis of each presentation that will be made and a biography of each speaker.

#### Purpose of the conference

The purpose of this conference is to enable member organisations to explore many of the key issues that are of active concern to senior managers.

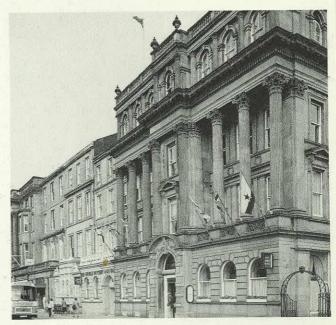
As a result of the developments in information technology the traditional role of the computer or data processing manager is changing considerably. The responsibilities and tasks associated with the management function of information technology are increasing in line with changes in the technology itself. The computer management role is becoming more demanding. As a result, existing management structures need to be examined. Also, to meet the requirements of their users, computer managers must plan to exploit recent advances in application systems and development tools.

Three significant factors that are encouraging changes in the organisational systems environment include the larger and more 'sophisticated' user population, the increasing variety and complexity of application systems and the growing need for data and systems security. These issues cannot be tackled by computer management alone. Commercial success, and sometimes survival, is more than ever dependent on the viability and reliability of the wider data processing activity.

Consequently, both technical and non-technical management must assess and evaluate the emerging tools and plan for their exploitation in meeting the corporate information processing requirements. The conference programme has been designed to address in detail the most significant of these issues.

#### The Conference programme

On each of the days, invited speakers will make a formal presentation which will be immediately followed by a discussion period.



The George Hotel, Edinburgh

From the programme set out in this document you will see that we have arranged for several advanced users and well-known experts from the field of information technology to participate in the conference. We are confident that the programme will be of value both to executives responsible for your organisation's information systems function, and to those with special responsibility for implementing particular aspects of information technology.

#### **Delegate entitlement**

Each member organisation is entitled to send up to three delegates to this international conference, and each delegate pays only for the accommodation and meals at the George Hotel. We have arranged a conference package with the hotel which covers all of these items for the duration of the conference. At the back of this document you will find details of the package and a registration form for the conference. Please complete this form and return it to us as soon as possible.

## The Conference Agenda

		Sunday 17 April 1983	
	1800-1900	Registration	
	1930-2030	Cocktail Party	
		Dinner. The conference package includes table d'hôte dinner at the George Hotel.	
		Monday 18 April	
haiman	0830-0900	Registration	
DS	0900-0910	Conference opening	David Seabrook Butler Cox & Partners Limited
DS	Session A 0910-1000	Keynote address	David Butler Butler Cox & Partners Limited
	1000-1020	Coffee	
AL	Session B 1020-1125	Software integration	Vic Morris Cullinane (UK) Limited
	1125-1140	Discussion	
AL	<b>Session C</b> 1140-1245	Télétel developments in 1983: how they affect the EDP strategy of large organisations	Alain Kagan Direction Générale des Télécommunications
	1245-1300	Discussion	
	1300-1415	Lunch	
DC	<b>Session D</b> 1415-1500	Standards for office automation	Dr Nigel Horne GEC Information Systems
	1500-1515	Discussion	
	1515-1535	Теа	2.1

Management Conference/Edinburgh/April 1983

GEC	<b>Session E</b> 1535-1645	Measuring management priorities	Tom Gilb Independent consultant
	1645-1700	Discussion	
	1930 for 2000	<b>Conference Dinner</b> The after dinner speaker will be Hans Peter Gassmann from the OECD	*
-		Tuesday 19 April 1983	
CEL	<b>Session F</b> 0900-1015	Business graphics: state of the art	Jerry Borrell Digital Design Inc.
	1015-1030	Discussion	
	1030-1050	Coffee	
D.S.	Session G 1050-1200	Exploiting low-cost technology: the management services dilemma	Philip Dorn Independent consultant
	1200-1215	Discussion .	
	1215-1345	Lunch	
CEC	<b>Session H</b> 1345-1445	Managing the systems life cycle: effective methods of cost control	Don Stuckle TRW Systems Inc.
UC	1445-1500	Discussion	
	1500-1520	Теа	
DB	Session I 1520-1620	Developing a management framework for information technology	Gordon Scarrott Independent consultant
	1620-1630	Discussion	
	1630-1645	Conference closure	David Butler Butler Cox & Partners Limited

#### Session A Monday 18 April: 0910-1000 Keynote address

#### David Butler Butler Cox & Partners Limited

During the past few years, rapid and fundamental changes have occurred in the environment of the manager of Information Technology. The technology has evolved rapidly. Cost-performance figures have improved vastly, further shifting the balance between cheap machines and expensive people.

The business environment has also changed, as the growth of the world economy has slumped and recession has bitten deeper.

But at the same time as the technical and business environment becomes much more demanding, a third and even more fundamental challenge is posed. The users of systems, increasingly confident in their dealings with system builders and increasingly intolerant of the traditional rigidity of systems, demand both cheapness and ease of use.

Can all these conflicting needs be met? Or is the system builder fated always to disappoint the end-user?



David Butler is Chairman and co-founder of Butler Cox & Partners Limited and of its research group the Butler Cox Foundation.

After attending Mill Hill School Mr Butler won an open scholarship to Keble College, Oxford, where he read Greats.

He entered data processing in 1962 as a trainee programmer. After working as a systems analyst and programmer he

joined the Urwick Group as a consultant/researcher. From 1970 to 1976 he filled a number of senior posts with a wellknown American consulting firm. Butler Cox was set up in early 1977.

He is a Vice-President of the British Computer Society and has won two national prizes for essays on computing. He has published over a hundred articles in magazines and newspapers and is an occasional radio and TV broadcaster. He has lectured widely in Britain and abroad and led the UK team which presented viewdata at the White House, Washington D.C. He is the author of "Britain and the Information Society".

#### Session B Monday 18 April: 1020-1125 Software integration

#### Vic Morris Cullinane (UK) Limited

In most large organisations there is a proliferation of computerised techniques which are being adopted in an attempt to address specific technical or business problems. These can include software such as database management systems, query languages, fourth generation languages, and hardware such as microcomputers, mainframes and CAD/CAM equipment. If each of these systems is based on separate "stand-alone" facilities then the result can be an environment which is extremely difficult to control, and leads to difficulty in formulating a cohesive information strategy for the organisation.

In this session, Vic Morris will discuss how an active data dictionary can be adopted to implement a software network which will span an organisation and enable vertical and horizontal integration of all computer related facilities. He will discuss recent developments in the area of software integration, and indicate where current research and development activity is likely to take us by the end of the decade. His talk will include references to data communications, and the implementation of an information centre which, integrated with personal computing facilities, should enable software to realise some of the dreams of the office of the future.

Vic Morris is Managing Director of Cullinane (UK) Limited.

Mr. Morris has more than ten years' experience in database implementation and management. His first experience was gained as a consultant within British Leyland's Database Design and Control Group. Subsequently, he became head of support for Scicon who at that time acted as the UK distributors for

Cullinane products.

Three years ago Cullinane (UK) was established and since then, Mr. Morris has led the expansion of the company's UK marketing, sales, technical support and training activities.

#### Session C Monday 18 April: 1140-1245 Télétel developments in 1983: how they affect the EDP strategy of large organisations

Alain Kagan Direction Générale des Télécommunications

The "Télématique Program" in France is now well advanced. Its most prominent representative is Télétel, the French videotex system, which is bound to impact on residential users as well as business users, starting on a very large scale in 1983.

After several years of development and testing, a wide variety of software and hardware compatible with almost all computer manufacturers is now available. These products allow the implementation of any type of Télétel system, from dedicated minicomputer based systems to large-scale networks interfacing with existing sites.

In particular, three developments are combining to make Télétel a mass-media service:

- The availability of the compact Minitel Télétel terminal.
- The extension of the "electronic directory" program. By 1986, it is estimated that 3 million Minitel terminals will be installed, free of charge for the telephone subscriber.
- The availability of network services. Access points to Transpac, the French X.25 packet-switched network, allow any Télétel terminal connected to the public telephone to access any computer via Transpac.

The business community see the Minitel as the means of offering data processing services to users who, until now, were left out of the computerisation process because of the relative high-cost of traditional computer terminals. In addition, it is technically possible for the same user to access any Télétel service, specifically those available for the general public.

Mr Kagan will show that the success of Télétel, like any videotex system, is based on three criteria:

- Availability of technical components (terminals, network services, software, hardware).
- Existence of a large number of users equipped with a terminal.
- Availability of services adapted to the users' needs.

He will demonstrate that France has now reached a point where these three conditions are about to be satisfied and can guarantee a bright future for Télétel.



Alain Kagan is presently in charge of the "large companies" Department at the French Directorate of Telecommunications.

He is responsible for the promotion of new products and services marketed by the French PTT or developed with its assistance, including Télétel, electronic money transfer (the ''chip card''), Teletex, electronic mail,

facsimile, etc. His responsibilities also include pilot-test projects with firms of the banking, insurance and industry sectors, where these various products and services are tried in a real-use environment.

Prior to being with the French PTT, Mr Kagan acquired a wide experience in application-oriented software development, in France and in the USA, with SESA, the world-leader for X.25 packet-switched networks.

Mr Kagan is a graduate from ''Ecole Supérieure d'Electricité'' and from Stanford University.

7

#### Session D Monday 18 April: 1415-1500 Standards for office automation

Nigel W. Horne GEC Information Systems

In this session Dr Nigel Horne will examine the need for standards and make proposals for some of the standards which should be supported and developed for the future. The issues will be addressed from two points of view. First, that of the manager who simply wants the most from his investment in office systems and data processing but is not concerned with the details of implementation. Second, that of the data processing department which must assume new responsibilities to meet the threats and challenges of distributed processing and communications.

The need for standards will be covered briefly and the presentation will first take a pragmatic look at what standards are available to satisfy a need and then identify those that show most promise of being widely adopted in the future. Where no standards are available an outline of a new requirement will be given.

The subject will be addressed from three standpoints: communications, distributed processing and usability (by the technically untrained user). In each case the emphasis will be on the requirement and not the technical detail.

The conclusions of the presentation will be that the intended benefits of office automation will never be realised unless communication between all types of terminal and computers is ensured, and unless the user interface is simple and comprehensible regardless of the function to be performed. All of these require standards to be defined. The challenge to the data processing department is to identify and police standards within an organisation and to form pressure groups in support of new standards where they are required.



Dr Nigel Horne is Managing Director of GEC Information Systems Limited. He was educated at John Lyon School, Harrow and, via GEC Student Scholarships, in Engineering at Bristol University and later in Mathematical Programming at Cambridge.

Dr. Horne joined GEC Telecommunications as a student apprentice and via widely diverse positions

including product development, commercial, manufacturing and data processing, became director responsible for Public Switching in 1976. In 1982 he led the formation of a new grouping within GEC, GEC Information Systems Limited, set up to provide products to the electronic office market including PABXs, computers and terminals. In the course of his career he has been responsible both for data processing and telecommunications equipment as a user and a provider.

Dr Horne is a Fellow of the Fellowship of Engineering and a Member of the Institute of Electrical Engineers, the Institute of Industrial Managers and the British Institute of Management.

#### Session E Monday 18 April: 1535-1645 Measuring management priorities

#### Tom Gilb Independent consultant

In this session, Tom Gilb will argue that it often appears that management enjoy stating their priorities in a language which is vague, confusing, wordy, incomplete, and thoroughly mixed together with things which have no priority whatsoever. At least that is the immediate impression one would form from the widespread common practice of stating management goals and priorities.

If the goal priorities are not clear to the solution providers, then there is every danger that they will not provide solutions for the highest management priorities. Thus every level of management must be willing to struggle with the dual problem of interpreting higher level management goals correctly, and of sending equally clear signals of their own priorities to others.

The basic solution which Tom Gilb advocates is to separate the means from the ends more clearly. This can be achieved in a number of ways:

- Do not state a solution as though it were a goal!
- Express goals in the form of top-down hierarchies.
- Separate absolute goals from the goal ideas which can be expressed measurably and which, depending on priorities, can be traded off.
- Make all such "attribute" goals measurable in a practical way, indicating relative priority by the level chosen for the "worst case", and the "planned level" of each attribute goal.
- Ensure that the goal set is complete, including all critical qualities and costs, so that there are no hidden priorities.
- Ensure that the structured goal statements are officially approved by signature before proceeding to act on them.
- Make use of a formal table (eg. a ''quota control'' table) to estimate the multidimensional impact of solutions on all critical priorities.
- Bring the solution into balance with the goals and their priorities.



Tom Gilb is an independent consultant, author, teacher and information systems architect. He has authored several books including "Software Metrics", "Humanized Input" (with Gerald Wienberg) and "Data Engineering". He has two new books nearing completion: "Design by Objectives" and "Management Technoscopes". He is the author of a regular column in "Computer Weekly".

Mr Gilb applies the material he

writes and speaks about in co-operation with clients in several countries.

Among his regular clients are IBM, ICL, BP, Midland Bank and ICI. He has spoken at IBM client meetings and national computing conferences in the USA on subjects related to this presentation.

His major current interest is developing advanced software engineering methods and 'technology transferring' them to top management planning and control.

#### After dinner Monday 18 April Legislation for information technology

#### Hans Peter Gassmann

Mr. Gassmann will discuss the following issues:

Privacy protection: In many western countries, legislation on privacy protection of personal data is already enacted or being discussed. A future issue is whether this protection, so far limited to data on persons, should or should not be generally extended to legal persons (as is already the case in Austria, Denmark, Luxembourg and Norway). International agreements (OECD privacy guidelines, Council of Europe Convention) so far cover only the protection of personal data, and have thus strong human rights dimensions.

Freedom of information: In several western democracies, freedom of information acts have been enacted. By permitting freer access of individuals or the public to administrative documents, these laws contribute to a greater transparency of public administration. These laws have some relation to privacy protection; these relationships need to be defined more clearly in the future.

Liability in information transfer: As ever more decisions will be based on data accessed by computer terminals at a distance, the issue arises of who is liable if incorrect data leads to losses of the decision-maker. A fair balance of the interests of the information provider, data transmitter and data user need to be found, maybe in the form of an internationally accepted model contract.

Computer vulnerability, computer crime: As more computers are used, legal issues addressing their criminal misuse become more important. New ways need to be found to reduce to an acceptable level the risks supported by government and by private business stemming from a widespread use of computers. These issues are mostly of a national dimension, but increasingly also have international ramifications.

Evidence law: Can computer printouts be relied upon in court as proof, or should the hearsay role continue to be fully used in the future? This is a basic problem especially for common-law countries.



Hans Peter Gassmann is Head of the Information, Computer and Communications Policy Programme of the Organisation for Economic Co-operation and Development (OECD) in Paris. Since 1969, he has developed the Organisation's work on computer utilisation in public administration and urban management, computer and telecommunications policy, social dimensions of information technology,

protection of privacy, transborder data flows and scientific and technological information policy.

His background is in economics and engineering. After graduating as a "Diplom-Wirtschafts-ingenieur" (M.S. in economics and mechanical engineering) at the Technische Hochschule in Darmstadt, Federal Republic of Germany, he spent one year on post-graduate work at the University of Paris.

He has been with the OECD since 1963. His fields of interest included long-range planning in education and the application of science and technology to economic development (he spent two years in Spain for field work). From 1966 to 1968, he participated in various policy studies on the "Technology Gap" between the United States and Europe.

He is the author of many articles on computer and telecommunications policy, protection of privacy, educational planning, and of the report on Scientific Instruments in the OECD Technological Gap publication series.

He has directed the OECD Series of publications "OECD Informatics Studies" (12 volumes 1971-1978), and since 1979 the new series "OECD Information, Computer and Communications Policy Reports" (7 volumes so far).

#### Session F Tuesday 19 April: 0900-1015 Business graphics: state of the art

Jerry Borrell Digital Design Inc.

In a comprehensive overview, the markets, technology, applications and trends in business graphics will be described and analysed. Existing markets for business graphics applications will be identified. The reasons for current changes in the market, resulting from improvements in computer graphics hardware and software will be indicated.

The different alternatives available for accessing business graphics, and cost and application-based selection factors for business graphics systems will then be examined. This discussion will include a consideration of software options such as device independence, 8, 16 and 32-bit applications, database management and the universal operator interface. Recent trends, such as utilising microcomputers for accessing remote service bureaux, and interfacing with image stores, will also be discussed.



Jerry Borrell is the Editor-in-Chief of Digital Design Magazine, a Morgan-Grampion publication, and North American Editor of Electronic Publishing Review. Mr. Borrell is also Director of Information Resources International, a Washington, D.C. based consulting and research organisation. He is known internationally through his writings and talks on computing and information technologies.

#### Session G Tuesday 19 April: 1050-1200 Exploiting low-cost technology: the management services dilemma

#### Philip Dorn Independent consultant

The personal computer revolution is an established fact. No amount of wishing can make them go away. Senior Management Information Systems (MIS) management must recognize that personal computers are now routinely accepted and used in a wide variety of applications in all types of corporate structures. During this session Philip Dorn will examine and discuss the implications of such significant developments.

He will argue that while MIS management may remember with fondness the pre-1979 era, the change in the information processing world has been so fundamental that pre-existing conditions can never be re-established. The single, corporate MIS budget with a single management having full responsibility for all information technology is dead. Already, many corporations have observed extensive spending for various MIS components that has never appeared on an MIS budget. More fundamental still, the long-maligned end-user community which paid the bill and took the punishment has found a convenient, easy-to-use, low-cost escape hatch.

In his presentation, Mr Dorn will note how senior MIS management has lost control of the information technology budget and more critically, the information technology function. In the process, much waste has been noted and more than a few applications have been grossly mishandled. But, on balance, the dire consequences often predicted simply have not happened. Corporations have not trembled nor the foundations cracked. The accountants have not detected gross incidents of fraud.

The future for senior MIS management is more complicated. In place of an era of tight control and centralised staff can be seen a world with decentralised processing and hierarchical controls. End users can no longer be told what to do. Rather an appropriate path must be suggested and the route made comfortable for them to travel. In conclusion, Mr Dorn will argue that in the new era, senior management will co-ordinate and conciliate, negotiate and market, reinforce and support.



Philip H. Dorn has been in Information Processing for over 24 years. He worked for the System Development Corporation (now part of Burroughs Corporation), General Motors Research Laboratories, Union Carbide Corporation and the Equitable Life Assurance Society. For the past 11 years he has operated a consulting organisation specialising in audits of installed systems, evaluation of

new equipment, organisational studies, and assisting new users in getting started.

During his Information Processing career, Mr. Dorn has been closely involved with a great many projects at the managerial and technical levels. His areas of personal specialisation include operating systems, graphical data processing, machine room operations and programming languages.

Mr. Dorn's professional activities include a term each as vice president and president of SHARE Inc. (the IBM large systems user group), chairmanship of the Metropolitan Detroit chapter of ACM and membership in USASI committee X 3.4. He was the holder of an ACM National Lectureship in 1970-71. As a representative of ACM, he testified before CONTU on matters relating to the copyright of computer programs. He is a reviewer for *Computing Reviews*, was for many years a referee for the *Communications of the ACM* and has been involved with many of the organising committees for the NCC and OAC. He is serving as marketing chairman for the U.S. Committee for IFIP '83.

Mr. Dorn is a long-time contributing editor to *Datamation* and was technology advisor to *OUTPUT* during its life. He writes a twice monthly column which appears in *Australasian Computer-world, Tietotekniikka* (Finland) and *Data-Nytt*, the official publication of the combined Nordic data associations.

His memberships include ACM, IEEE and the British Computer Society.

#### Session H Tuesday 19 April: 1345-1445 Managing the systems life cycle: effective methods of cost control

Don Stuckle TRW Systems Inc.

In this session, Don Stuckle will describe the TRW Software Productivity Project including the background and goals for the project, its current status, conclusions and experience to date, and future plans.

The TRW Software Productivity Project (SPP) was formed in January 1981 following an extensive software productivity study performed the previous year. Corporate direction for the project is to improve software productivity by a factor of two by 1985 and by a factor of four by 1990.

During 1982, many experimental and prototype capabilities developed by SPP during 1981 were utilised by an actual large real-time TRW software development project. Feedback from this user community has encouraged TRW to expand these capabilities to other projects in 1983.

In his presentation, Mr. Stuckle will discuss the key factors, capabilities, and problems involved in gaining user acceptance of techniques to improve productivity. Plans for continuing the development of new SPP capabilities to meet long-term goals will be reviewed as well as the approach defined for supporting other TRW projects. Performance measurement data obtained in 1982 will be reviewed in addition to plans for collecting additional measurement data in the future.

In this session, Mr. Stuckle will provide information demonstrating that significant gains in software productivity can be achieved with a multi-dimensional productivity programme. However, management support to such a programme is mandatory as is planning for acceptance by the user community.



Don Stuckle is Manager of the TRW Defense Systems and Space Group's (DSG) Software Productivity Project.

Since joining TRW in 1959 as a computer programmer, he has been actively involved in the development and implementation of software standards and procedures. In the mid-1970s, he was a key participant in the formation of the TRW life cycle software

development methodology and accompanying software development policies. Adherence to these policies is mandatory for all TRW DSG software projects.

During his 25 years with TRW, Mr. Stuckle has been involved in a variety of software development activities including project management, product assurance, software design, development, test and hardware/software integration and test. While his recent work has primarily involved the development of large real-time data processing systems, his experience also includes scientific simulations, database management systems and business data processing applications.

In his present position, he is responsible for managing and directing the TRW DSG multi-dimensional Software Productivity Project. Specific productivity activities include automated office systems, office facilities, local area networks, evaluation and procurement of new hardware, and the development of software tools to support the TRW software development methodology.

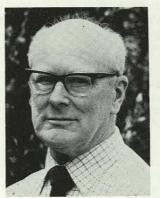
### Session I Tuesday 19 April: 1520-1620 Developing a management framework for information technology

#### Gordon Scarrott Independent consultant

During the 30 years since the introduction of electronic devices into information processing equipment, the functions of data processing in business and the techniques used to fulfil such functions have become of such bewildering complexity that the field has splintered into a multitude of specialised disciplines, each insulated by its own jargon from the others. Consequently it has become increasingly difficult to assess in human terms the intrinsic value of each subactivity, since such an assessment must necessarily be derived from a coherent understanding of the whole.

In this session Gordon Scarrott will argue that in order to achieve such an understanding we must stand back from immediate problems and reconsider the intrinsic properties of 'information' derived from its role in human affairs and thus create sound conceptual foundations for a branch of engineering that is beginning to be known as "Information Engineering". Moreover, the same considerations make it possible to trace some of the interactions, past and foreseeable, between maturing information technology and the organisational 'style' of society represented by common patterns of business management.

Mr Scarrott will conclude that with the end of restricted design practices such as the separation of storage and processing devices inherited from earlier generations of information technology, a great opportunity arises to direct the use of information technology to meet the needs that have been recognised from our accumulating experience and understanding of the nature of information.



Gordon Scarrott recently retired as the manager of the ICL Research and Advanced Development Centre.

In a long and distinguished career he has published papers on a variety of subjects ranging from electronics for nuclear physics to computer architecture.

During his early career at the Cavendish Laboratory, Cambridge, his work in

developing electronic instruments for nuclear physics culminated in the joint development of one of the first practical Pulse Height Analysers for which the Physical Society's "Duddell' medal was awarded.

In 1953 he joined the Ferranti Computer Department and was subsequently appointed Chief Research Engineer. In 1967 he was appointed manager at the ICL Research and Advanced Development Centre.

Mr. Scarrott is a member of the Electronics Divisional Board, IEE and the Computer Science Committee of the Engineering Board, Science Research Council, and in 1980 was elected to the Fellowship of Engineering.

In 1979 he presented the Clifford Paterson Lecture to the Royal Society.

#### **Registration for the conference**

To register for the conference please complete the form opposite and return it to your local Butler Cox Foundation office (address on the back of this document), preferably by Monday 4th April 1983.

We will acknowledge receipt of each registration.

#### Accommodation

The conference is to be held at the George Hotel, Edinburgh, Scotland. We have negotiated an accommodation package on behalf of conference delegates which includes accommodation and all meals during the conference.

The total cost of the accommodation package is £92.50 (including VAT). This amount (together with any additional charges incurred by the delegate) should be paid direct to the George Hotel at the end of the conference.

#### Companions

We have also made arrangements for husbands or wives accompanying delegates to the conference. The cost of the companion's package, which covers shared accommodation, breakfast, lunch and dinner for the duration of the conference will be £83.50 (including VAT). This amount should also be paid direct to the George Hotel.

Companions are invited to join the delegates as the guests of Butler Cox & Partners for the cocktail party on 17th April and for the conference dinner (on 18th April). Edinburgh is one of the most attractive capital cities in the world.

It is a city rich in history yet progressive in outlook, a capital of striking contrasts where the old and the new stand side by side in harmony. It is a place where art and culture have flourished, where the fields of research in science, medicine and education have developed for centuries.

There are a multitude of places to visit — the Castle, the Royal Mile, St. Giles' Cathedral, Parliament House, John Knox's House, Palace of Holyroodhouse, Princes Street, National Gallery of Scotland and the Royal Scottish Museum to name but a few.

Lothian Region Transport has an expert team of qualified couriers and, throughout the year, city tours are operated from the Waverley Bridge which is just off Princes Street near the Scott Monument. These tours vary in length from about one hour to approximately 3½ hours and provide an excellent way of exploring Edinburgh in comfort.

92.50 83-50 186.00

# **Registration form**

Please register me for the management conference and book hotel accommodation on my behalf to cover the period commencing in the evening of 17 April and ending after lunch on 19 April.

I understand that if this booking is not cancelled on or before 10 April 1983, any resulting costs incurred by Butler Cox & Partners Limited will be invoiced to my organisation.

Member Organisation	
Delegate Name	
Position	
Address	
	4
Telephone	
Telex	
I will be accompanied by:	
*	
	Please book the companion's package on his/her behalf.
	Please book the companion's package of his/her behan.
Signature	



Butler Cox & Partners Limited Morley House, 26-30 Holborn Viaduct, London EC1A 2BP 201-583 9381, Telex 8813717 BUTCOX

> Belgium & The Netherlands SA Butler Cox NV Avenue Louise – 479 – Louizalaan, Bte – 47 – Bus. Bruxelles 1050 Brussel 20 (02) 647 15 53, Telex 61963 BUTCOX

France Butler Cox SARL Tour Akzo, 164 Rue Ambroise Croizat, 93204 St Denis-Cedex 1, France (1) 820.61.64, Telex 630336 AKZOPLA

United States of America Butler Cox & Partners Limited P.O. Box 590, Morristown, New Jersey 07960, USA 2 (201) 285 1500

Switzerland and Germany Butler Cox & Partners Limted Morley House, 26-30 Holborn Viaduct, London EC1A 2BP 2 (London) 583 9381

> Italy Sisdoconsult 20123 Milano – Via Caradosso 7 – Italy 286.53.55/87.62.27, Telex 311250 PPF MI

The Nordic Region Statskonsult PO Box 4040, S-171 04 Solna, Sweden 208-730 03 00, Telex 127 54 SINTAB