

PLANNING OFFICE AUTOMATION INFORMATION MANAGEMENT SYSTEMS

Recent technological developments have led to the availability of desk-top word processors, microcomputers, viewdata terminals and other office computing equipment, allowing users to perform text generation and editing, electronic mail, electronic filing and indexing of documents, shared access to electronic information, etc – often at prices which departmental budget holders can afford. Many organisations now realise the wisdom of planning a corporate office automation strategy to make sure that individual office systems can be integrated and the full benefits achieved.

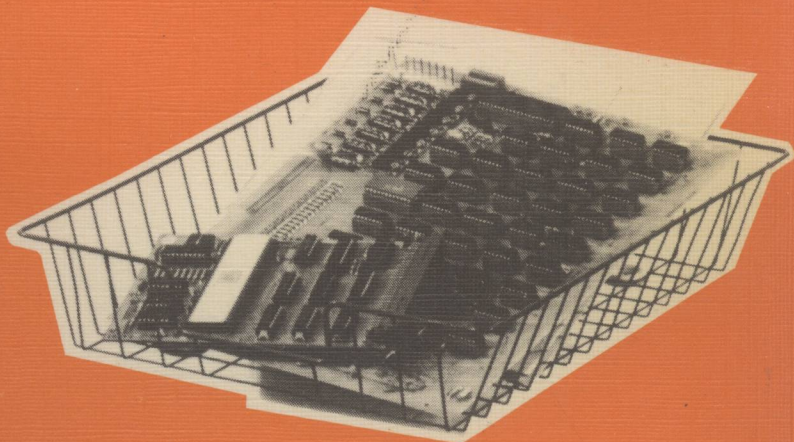
This book is a distillation of advice and information gained by the authors from visiting user and supplier organisations in the UK, USA, Europe and Japan, from running workshops, and from talking to colleagues. It discusses the role of information and its management, and strategic planning considerations. It reviews the types of IMS and the technology available for information management. It also discusses the strategic issues and design considerations that should be addressed, and looks to the future when much office work will be carried out inside electronic booths. Appendices include: categories of IMS, glossary, bibliography and index.

This book is the companion volume to *Planning Office Automation: Electronic Message Systems* by John Pritchard and Paul Wilson.



PLANNING OFFICE AUTOMATION — Information Management Systems

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Information Management Systems

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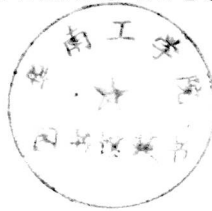
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Preface

'The electronic office as a total integrated information system is very much a concept of the future, but evolution towards it is clearly evident today. This book deals with current developments . . . It is the intention that future work . . . will look at the design, implementation and operation of the electronic office' (extract from the Preface to *Introducing the Electronic Office*, see Bibliography, item 1.1).

The work from which that book derived set the scene for a follow-up programme – and in 1980 NCC commenced a programme of work supported by the Department of Industry through the Computers, Systems and Electronics Requirements Board (CSERB). The aim of this programme is to establish the present and future needs of user organisations in the UK and their degree of satisfaction with existing products and services in the office automation (OA) area, and to produce books and guidance to assist users.

Initially a user survey was carried out to identify what progress was being made in the areas of electronic message systems (EMS) and information management systems (IMS). In-depth structured interviews were held with twelve organisations who were selected because they were known to have experience in – or plans at an advanced stage to become involved in – relevant OA systems. The findings were contained in a report *The Report of a Survey of UK Users (1980)* (see Bibliography, item 1.2).

Subsequently, work began upon a project which produced a book which aims to provide readers with advice which will assist them to develop an OA strategy, with particular reference to electronic message systems. That book is *Planning Office Automation – Electronic Message*

Systems (see Bibliography, item 1.3). Mindful that EMS can be but a part of an organisation's complete OA activity, a related project has been carried out to investigate strategic issues and design considerations for IMS (as the other project did for EMS), and has produced this book. It is anticipated that readers will read these two companion volumes together.

Other projects have investigated, or will investigate, the evaluation and selection of EMS and IMS products and services, and their implementation and operation. Other books and reports which have already been produced through NCC's OA work programme include the report of three workshops held in Manchester, London and Edinburgh in 1981: *Information Management Systems— Strategic Issues and Design Considerations* (see Bibliography, item 1.4) and the guidelines books *Electronic Mail Systems*, *Facsimile Equipment*, *Viewdata Systems* and *Office System Printers* (see Bibliography, items 1.5, 1.6, 1.7 and 1.8) and the multi-client study report *Managers and the New Technology* (see Bibliography, item 1.9).

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1 Introduction

BACKGROUND

The National Computing Centre (NCC) commenced a major programme of work in the office automation (OA) area during 1980. One of the activities which has been completed was an investigation of how organisations should prepare an OA strategy, and of relevant strategic issues and design considerations which should be addressed. This investigation was carried out in two parts and two books have been produced: *Planning Office Automation*—*Electronic Message Systems* (see Bibliography, item 1.3); and this book.

The material gathered for the first book reflects experience and thinking during 1980 and the early part of 1981 and continues to be relevant. However, the demise towards the end of 1981 of the National Enterprise Board (NEB) venture, Nexos Office Systems, and with it the Delta Office Controller project, removes – temporarily at any rate – one OA strategy option which looked on paper to merit attention.

Further material for the present book was gathered during 1981 and 1982. This was a period of change in the office environment. New products and services – based upon microprocessor chips, communications satellites, fibre optics, optical disks, voice store-and-forward, voice recognition and other new technology – are being developed in the USA, Japan, the UK and elsewhere. Some of these products and services have begun to be used in offices in the UK. There have been changes too in awareness and attitudes towards OA in the UK, and IT82 (see below) was launched to increase awareness and to develop positive attitudes towards OA. Change in offices will continue during 1983 and beyond – and not only in offices but also in:

- factories, eg robots and data collection systems;
- shops and stores, eg electronic point-of-sale (EPOS) equipment and electronic funds transfer (EFT) transactions;
- secondary schools, eg the Government scheme to install micro-computers: this scheme was extended by the 1982 Budget, to cover primary schools also;
- society, eg the Government scheme to set up Information Technology Centres (Itecs) at Notting Dale and elsewhere (extended to one hundred Centres by the 1982 Budget) to provide the young unemployed with IT skills, the Open University's Cyclops 'electronic blackboard' terminals, the BBC's computer literacy project launched on BBC1 in January 1982 based on the Acorn microcomputer (ordered by 500 schools and 12,000 members of the public before the launch), and domestic Prestel and teletext sets;
- public transport, eg ticket issuing/data collection machines in buses;
- heavy goods vehicles, eg tachometers and their use for collecting data for computer analysis;
- other walks of life, eg hospitals, defence systems.

In several of these areas, new technology is being used to automate – and therefore to speed up and to make less expensive – various information-related tasks. However, whilst there is nothing wrong in using new technology for these reasons, it is imperative that investment attitudes should change significantly in those organisations which wish to survive the transition to the Information Society. Information must be perceived as a resource and managed accordingly, using automated processes. This will ensure that people have better-quality information and more time for creative thinking, for making better decisions, for increasing sales or for improving service levels. Information and information management processes must be integrated to add value to raw information. In the electronic office this integration will be achieved by investing in new technology, but a strategy is essential if problems are to be overcome and major benefits are to be attained.

To set the background for this book, it is interesting to comment briefly

upon a number of recent events – they are part of the environment in which UK organisations are planning an OA strategy, undertaking pilot trials, or beginning to move forward towards the fully-integrated electronic office and the information society.

The UK Conservative Government, with a general philosophy of non-intervention and privatisation, has enacted the British Telecommunications Act. This splits the existing Post Office, which had operated under the Post Office Act of 1969, into two parts – British Telecom (BT) with telecommunications responsibilities, and a second body called the Post Office (but different from the pre-1981 body of that name) with postal responsibilities. The 1981 Act also provides for the relaxation of the monopoly position which had existed previously: there will be greater freedom for suppliers to be licensed to provide third-party value-added network services (VANS) using the BT network (see the Department of Industry guidelines in Appendix A), and for non-BT supplied equipment to be connected to the network.

Discussions took place and were concluded for a private consortium to be licensed by the Department of Industry (DoI) to offer communications services on a competing network, Mercury, using communications channels laid alongside British Rail tracks and some microwave transmission, but not BT network circuits. 1981 was the first full year of operation of the Ministry for Information Technology. The Minister, Mr Kenneth Baker, announced that 1982 would be Information Technology Year (IT82), and provided funding of £600,000. A national policy and planning committee (the 1982 Committee), under the chairmanship of Mr Alan Benjamin, was supported by nine regional committees, which prepared local programmes of events – debates, exhibitions, seminars, competitions etc.

IT82 was a nationwide awareness campaign aimed at promoting a wider appreciation of the opportunities, benefits and challenges provided by information technology among the general public as well as those in business and public administration. For IT82, NCC organised six mobile exhibition vans to tour the country and demonstrate electronic office equipment – appearing at The Grand National at Aintree, at County Shows and at many other events. The ‘micro-van’ project was launched in January 1982 by the Prime Minister, Mrs Margaret Thatcher, during a visit to NCC. This followed the opening, in April 1981, of NCC’s Microsystems Centre in London.

The DoI has allocated funding for pilot electronic offices to be set up in public bodies with the aim of convincing all organisations, public and private sector, that there are benefits in office automation. Figure 1.1 shows the position towards the end of 1982. Twenty organisations had been accepted as suppliers, and user organisations were matched to them; other supplier/user pairings were under consideration.

The Government agreed to support the European Space Agency's L-Sat telecommunications satellite project with an investment of £77 million. During the next decade communications satellites will become a key element in a nation's telecommunications infrastructure: any nation ignoring this technology will put at risk its international competitiveness and influence.

Organisations will have small dishes – frequently built into the roof of their building – to give them access to a range of value-added information services for facsimile transmission, messaging, video conferencing, external database access and retrieval, etc. The United Nations has designated 1983 as WCY83 (World Communications Year). It will be organised by the International Telecommunications Union (ITU), a UN agency, and will seek to develop communications infrastructure and focus attention upon the need for co-ordination at a national level. The aim is to ensure that communications are used to increase economic, social and cultural development throughout the world.

BT's new and long-awaited public packet switched service PSS began full commercial operation in August 1981 (see Chapter 4). In November 1981 BT announced that from 1982 a new range of digital transmission services would be marketed under the name of X-Stream. These services are MegaStream, KiloStream, SwitchStream (NB PSS has been renamed the SwitchStream 1 service) and SatStream (see Chapter 4).

During 1981 BL Systems Ltd, based at Redditch, was granted a five-year licence by BT to supply the Comet electronic mailbox system as a third-party intra-organisation messaging service for text messages; the Comet system was developed by the USA company Computer Corporation of America (CCA) of Cambridge, Massachusetts. BT introduced an electronic mail service for its Prestel viewdata system; it also announced its own electronic mail service, using the Dialcom software from the USA, and its teletex text communication service – this latter service will be operational in 1983. The Post Office introduced its Electronic Post