Microcomputers for Local Government Planning and Management *edited by*
P. W. Newton and M.A.P. Taylor
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Traditionally local authorities have utilised computing bureau services for
their main accounting auditing functions, and have been generally wary of in-
house computing. This, of course, has changed dramatically in the last 5-10
years, with most local authorities choosing in-house computing techniques,
and there has been a steady growth in the use of 'departmental' systems in the
areas of engineering, town planning, traffic control, spreadsheets, mapping,
population and demographic planning, and council financial planning and
modelling. This expansion has brought with it a number of problems; the
inability of software to perform to specification, the general lack of support
by suppliers of systems, and the ever increasing problem caused by the
'isolation' of departmental systems because of poor networks or
communications.

In general, the most hesitant users of microcomputers in local government
have been all of those departments outside the traditional areas of accounting
and rating. The impact that this book has had on improving the basic
knowledge, understanding and confidence of those users, in the short time the
book has been available, has been quite encouraging. The wide exposure I
receive from all local authority areas of responsibility has proven that these
users have finally discovered a very relevant and topical reference manual, and
to the authors of the book must go an expression of appreciation.

However, the authors tend to concentrate and support the stand-alone or
departmental microcomputer. There is scant reference to the critical
importance of this facility as part of a council's overall corporate information
processing policy. In my experience, and without exception, there has been a
central need to input data from a microcomputer-based departmental system,
or *vice versa*; e.g., financial information into spreadsheets, property details
into demographic modelling, etc. The book mentions this important
consideration, but it is not emphasised sufficiently. It is all too easy, with the
use of departmental funds, to purchase a microcomputer and software
package divorced from any council plan for harmonious development. When
this occurs, departmental fragmentation results, invariably leading to reduced
productivity and efficiency, the opposite of the benefits planned with the
original installation.

The early chapters, however, date the book. It is difficult to give advice
about hardware requirements in any detail because they change almost
monthly. The purchasing and evaluation chapter should be severely criticised,
as this is very much a local matter, and is also subject to rapid change. Each
authority has its own policies and procedures, and should be able to operate
autonomously in this area. As noted earlier, widespread compatibility and
networking capabilities are of paramount importance. This is not made
sufficiently explicit. Insufficient emphasis is given to the ability to obtain the
data for the application software discussed. No microcomputer or package is
of any use without the data input methodology. The inclusion of these items in
the front of the book would have set a much more valuable context for the
remainder.

The book has something for nearly everyone. However, obvious areas are omitted which are currently important: office systems, records management and plant control, to name a few. On the other hand, the chapter on hardware options provides a useful explanation for those users who have heard only the computer jargon without understanding its meaning.

Perhaps the widest use of microcomputers at this time is for spreadsheets. The information provided in this section is relevant and comprehensive. There is a useful comparison between existing spreadsheet packages. The examples given address specific business-oriented problems and the application of the software to those problems. The traditional spreadsheet manuals normally describe the physical use of the software and ignore its specific practical application to solving management difficulties.

It is inappropriate to criticise each individual chapter of this book, as this would require a much larger review, and more importantly, a very detailed understanding of the subject being discussed. In some respects, therefore, this is a book for specialists. The subjects tackled vary from spreadsheets, through land information systems, to town planning and expert systems. In each case, the subject matter is professionally presented and balanced with a real working model of the local government world. Nonetheless, it is appropriate to make reference to the subject matter in a broad sense. For this purpose, I have sought the opinions of users working in local government, to add an insiders' view of the topics covered.

Newton and Crawford, in their explanation of geographic information systems (GIS), present good reasons why the need for such systems is becoming more important, and furthermore they distinguish quite clearly the differences between these and a land or parcel-based information system. The development of departmental GIS modules will doubtless expand rapidly in the next five years. Power and graphics technology, linked with corporate networking capability, will become cheaper and more available, and there is an ever increasing need to produce quality grant submissions and similar documentation.

The chapter on parcel-based land information systems deserves special mention, and special commendation. Traditionally, this is an area of local government that is least understood and, consequently, is given a low priority for funding. Yet it is fundamental in the long term for the type of spatial accessibility which will be demanded by the public. I agree with Zwart that the power and capacity of microcomputers is increasing so rapidly that the ability to hold complete land information system packages on these distributed devises will become possible. Indeed, this is already happening. The message is clear — the benefits of such a system will be achieved only through a lot of work and commitment, directed along well-defined channels. The implications are, of course, that business houses and service utilities associated with a local authority will also be able to access (by agreement) this information, thus uniting the community and making all agencies which access this data efficient and consistent.

The presentations on strategic planning are thought provoking; this is a topic which is only touched on here, but the book still provides a background to the use and role of microcomputers in the area. Forecasting and modelling techniques will be essential for decision making in the future; there is extremely limited use made of these techniques currently. Indeed, very little

quality software is now available. It is pleasing to observe that highly reputable bodies, such as the CSIRO, ABS and the state local government departments, are actively involved in this area, and are promoting the use of their methods across Australia. This book has undoubtedly served to foster this development. Local authorities must be strongly encouraged to obtain relevant software from these sources, to use it on their own microcomputers if necessary, thereby improving corporate reporting. The financial planning chapter (Jarman) provides the reader with wide options on methods of budgeting and analysis. As a local authority becomes more and more accountable (and there will be a need to become more productive as funds dwindle), the methods and software development created will be a high priority for all concerned over the next decade.

The role of human influence, or socio-economic factors, is significant within local government planning. I commend very strongly the reference made by Wulff in chapter 15 on the need for authorities to commit resources for the collection of household data which can be combined with readily available ABS information. The result of this effort will produce very pertinent local information which can only improve the quality of local research available to council executives. The role of social workers and internal council consultants will become more important as the trend to decentralise welfare functions increases.

Parts V and VI of the book deal with the general problems of traffic management, environmental quality, waste disposal needs, specific requirements for building and its management. Without doubt, a reviewer would need to be extremely technically competent to be able to assess these chapters fully and accurately. In general, the information here is both interesting and well presented.

The final chapter, written by Marksjo, is a fitting conclusion to the whole book. The expert system, arguably, is a concept which most local government employees have heard about and believe to be a facility for use in the late 1990s. Indeed, this is perhaps a view held by the general public, including many computing suppliers. Work is well advanced, by a number of suppliers, on expert systems. Information is the key to an expert system, coupled intimately with rules and experiences. Marksjo has given a very brief but important view on the subject, one which will rapidly infiltrate into the lives of most local authority employees.

In summary, the book's aim was to "provide information on the most recent developments in microcomputer hardware and software of relevance to practitioners in local government — particularly those engaged in planning, engineering or management functions". This has generally been achieved with professional competence, subject to some reservations about the earlier chapters. The book has been widely accepted by local government users. I congratulate the authors and look forward to a subsequent edition of the book. As we all know, technology changes rapidly in two years, and the available software facilities with it.

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