MONASH UNIVERSITY

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THE ACCOUNTANT'S PC: Getting Started

by

Esme Preston and John Preston

Introduction

Many recent and not-so-recent graduates in accounting want to learn about personal computing. Some, indeed, seem to be buying a PC before they know precisely what they want to do with it and only later come to consider how large an expenditure on software will be required to meet their needs and how they may best acquire the 'know-how' to use it effectively.

Recent Australian graduates have had the benefit of the availability of PCs during their undergraduate training. Some of their seniors might welcome some pointers in getting their hands onto the keyboard at minimum cost both financially and in terms of time spent in training. Since the IBM PC operating under DOS is pre-eminently the business PC of choice our comments are confined to this machine and its 'clones'.

How much DOS?

Whatever use is to be made of the PC a basic knowledge of PC or MS DOS is essential. Users who are chiefly concerned to run applications packages need relatively little knowledge of DOS.

Philippe Kahn of Borland in a recent interview[1] said:

'You can use DOS if you know four commands:

COPY, MAKE DIRECTORY. CHANGE DIRECTORY,

DEL[ETE]. oh, and maybe FORMAT. That's all

people need, so can't they even learn five

words and not waste 50KB of memory?'

Clearly, Kahn was thinking of hard disk users since MD and CD (the make and change directory commands) are not so much used with floppy disk systems. In either case, however, we would add a few more items to the list of DOS essentials. These are:

CLS, CHKDSK, DATE, DIR, REN[AME], TIME, TYPE

Thus about a dozen DOS commands should be regarded as indispensible.

In our view every user of a PC needs this survival-level knowledge of DOS. While applications software often handles such details as the copying, deleting or renaming of files rendering DOS itself transparent (a better word would be invisible) to the user yet DOS is the bedrock on which everything else rests. Learning the special commands built into applications software may be more time-consuming and restrictive than learning the DOS commands which apply universally. Although it is true that software houses tend to follow somewhat similar conventions there

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[1] Rob Beattie, *Borland's Philippe Kahn Interviewed*, Computers at Work, Vol. 1 No 1 January/February 1987.

is no guarantee of this and great deal of time and money can often be saved by learning the basic DOS commands listed above.

Eventually the professional accountant will probably aim for a more extensive knowledge of DOS. This becomes much easier to motivate when the PC has become familiar and the need for more know-how becomes self-evident.

There are many good books about DOS.[2] They are not cheap. There are also tutorials on disk; some of these are extraordinarily good value.[3]

Costs of Applications Software

One of the first needs is for applications software, particularly a word-processor and a spreadsheet. We will not here consider specialist accounting packages, electronic bookkeepers and the like which were extensively reviewed recently in PC Magazine[4]

The cost of applications software is high in Australia. The following table shows one each of the major types of software

2 One which can be recommended is Peter Norton, *MS-DOS and PC-DOS User' Guide,* Brady/Prentice-Hall 1984.

3 Recommended is Tutor from Computer Knowledge, P.O. Box 91176, Los Angeles, CA 90009. This is shareware available for evaluation in the public domain for distribution and evaluation. Registration costs $US25.

4 See Vol 6 No 15, September 15, 1987.

together with recent data on US usage and local cost of purchase. Each software item is the most popular of its kind either in the Big 8 public accounting firms or in Fortune 500 companies in the U.S.A. as reported in a recent survey. The price of each item quoted in the table is simply that advertised by suppliers recently in a reputable Australian computing magazine.[5] By shopping around it might be possible to buy more cheaply; on the other hand, more advanced or later versions of each item would cost more.

Percentage of US Offices Using Specified Software

	Big 8	Industry	Local Cost
Lotus 1-2-3	67%	82%	$580
Dbase III+	58%	46%	$799
Multimate	43%	37%	$690
Crosstalk	14%	41%	$170
Total Cost			$2239

Source: R A Gallun et al, *National Survey of Microcomputer Usage*, The Chartered Accountant in Australia, October 1987, p 22.

[5] *Australian Computing* which is supported by the Institute of Chartered Accountants and published in Australia by McGraw Hill.

It is clear that to equip a PC with even the most basic software needed in business is expensive. More advanced financial modelling packages for forecasting, linear programming etc. may also be required. Prices for these are, in general, higher (they enjoy a much smaller market). Moreover, they may require the installation of a math co-processor which is not cheap.

Then there is the burgeoning field of graphical analysis and presentation graphics needed in some types of business; for this, in addition to the software, an EGA card and monitor are usually required and these are considerably more expensive than the card and monitor that will serve for many word processors.

The plain fact is that the applications software and the supplementary hardware required to turn the PC into a real power tool for business may cost far more than the original hardware.

Cost of Instruction

The new user may feel a need for formal tuition A reputable 2-day hands-on Introduction to Lotus 1-2-3 is currently advertised at $435 per individual and 'some familiarity with a PC would be an advantage'. Training aimed at developing such familiarity is offered in further two-day courses at the same price. Clearly, the cost of learning how to use a PC effectively can be very large and in the current state of business may be prohibitive.[6]

[6] Some tertiary level educational institutions offer courses at considerably less cost; their offerings are well advertised.

A two-day course is scarcely likely to turn a novice into an expert; that requires long practice and exposure to the software. Furthermore, the use of a spreadsheet is full of traps for the unwary.[7] The user needs considerable experience with the spreadsheet technique *before* vital company spreadsheets are endangered. Ignoring this need could prove catastrophic.

Similarly, the mastery of a word processor, essential to *any* PC user, takes time. Bad word processing techniques can be a hindrance to the individual or even damaging to the prestige of the firm.

Some Possible Solutions

Public Domain software is freely distributed to users through the international user network. Much of it (not all by any means) originates in the universities; its authors regard their provision of software as a public service.

Shareware is in a different category; it is a commercial product, rarely advertised, and marketed generally through the user network under extraordinarily generous conditions. It may be freely copied for evaluation. When the user is satisfied of the quality of the product the payment of a small voluntary fee for registration will procure an up-to-date version and complete manual.

Public Domain and Shareware software is variable in quality

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[7] See Steve Ditlea, *Spreadsheets Can be Hazardous To Your Health*, Personal Computing, January 1987.

but much of it is excellent - sometimes superior to commercially advertised and, therefore, better known items in the market. New products are distributed rapidly through the international user network. Documentation is normally of a high standard and for good reason - the product must make its way solely through user support. Frequently, the shareware product will prove easier to learn; if it lacks the abundance of options provided by the big-name package this may be an advantage to the beginner who is often merely confused by the extent of menu choice in the standard packages.

New users first need a knowledge of the principles of quantitative and computer techniques rather than drilling in a particular implementation. The beginner needs to know, for example, what can be expected of spreadsheets in general and what are their dangers - knowledge scarcely obtainable without hands-on experience. Public domain/shareware software is highly suited for the purpose and will often be suitable for long-term adoption.

The practice of reviewing public domain products is growing and it is encouraging to read the numerous reviews of such software now appearing in *Byte* and other PC magazines of the highest repute including latterly *Australian Computing* [8]. It is still difficult, however, to find such products except through

[8] See, for example,the regular Insight column in the July 1987 issue of *Australian Computing* or *Byte*, October 1986.

fellow users[9] .

PC CALC and Chiwriter

In preparing this article two application packages freely available in the public domain were used, namely, a word processor and a spreadsheet. By this means we demonstrate the value of particular items and encourage others to consider this alternative source of software.

The spreadsheet PC CALC is a good and reliable example of its kind.It's author is well-known and has a high reputation amongst PC *afficionados*. It is one of many spreadsheets marketed almost solely through the international user network.

The word processor Chiwriter is, similarly, a shareware product. It is not yet as well known as PC-WRITE which was first released by Bob Wallace in 1983 and is probably the best known of all shareware products. Chiwriter has certain major advantages compared with better known word processors, namely, outstandingly good yet simple techniques for handling mathematical equations and foreign languages. It is, in short, a *technical* word processor but is remarkably easy to use - users, including typists, master it quickly with no instruction other than the on-disk tutorial provided. There are many business users in the 'high tech' or foreign trade areas who might be interested in its special

[9] Some Public Domain/Shareware Accounting Software is reviewed in *PC Update* (a publicationof the Melbourne PC User Group) Vol. 4.8, September, 1987.

scientific and language capabilities while others might find ease in learning to be its chief attraction. Currently, it lacks some of the manuscript handling features one might require for producing business brochures but at least one Australian publication is currently produced entirely by this means[10]. It was first released in 1985 and its author is an American Professor of Mathematics.[11]

To illustrate how these two items of shareware can be used in combination and with a little help from DOS to produce an accounting application we take a simple example involving the extraction of a subsection of a spreadsheet for inclusion in a personal report to a client.

Preparing a Report for a client

In this example a report on a personal portfolio is being prepared for a client. The small table could be printed out directly from the spreadsheet, of course, but on this occasion it is to be included within a friendly letter from the accountant to his client. The PC being used has a hard disk with Chiwriter in one subdirectory and PC CALC in another. Most serious users of PCs will require a hard disk to speed their access to files; on

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[10] *Function* produced by the Monash Mathematics Department.

[11] A review can be found in *The Notices of the American Mathematical Society*, April 1987.

the other hand both Chiwriter and PC CALC which were actually used to prepare this paper can be operated easily on a floppy disk system.

The data were first entered as part of a larger spreadsheet and all computations done there. The section or 'block' relating to this particular client was then extracted by printing it to disk instead of to the printer and the file so formed was named PDG. Chiwriter commands were then used to merge the PDG file into a file containing the letter where it was edited. DOS enters the procedure only at this latter point where the full pathname of the PDG file (say C:\PCCALC\PDG where PCCALC is the name of the subdirectory containing the file PDG) is required.

Editing was simple; the layout of the table was controlled by the spreadsheet. A little cutting and pasting, a little changing of fonts (from standard to italic or bold), and the use of the Chiwriter printing commands is about all that was needed to convert the original spreadsheet extract into a presentation table to be included in a report.

Personal Portfolio Report for P. D. Gardiner

At August 7, 1987

P.D.Gardiner	Holding 20/4/87	Price 20/4/87	Value 20/4/87	Price 6/8/87	Value 6/8/87
Item	No	$	$	$	$
PuntRoad	1,658	4.75	7,875.50	4.45	7,378.10
Equus	450	2.98	1,341.00	3.70	1,665.00
Carter	5,000	.21	1,050.00	.22	1,100.00
CarterOps	2,500	.05	125.00	.05	125.00
GoldFlake	7	616.00	4,312.00	646.00	4,522.00
BriT	6,000	.40	2,400.00	.41	2,460.00
BriT ops	6,000	.08	480.00	.08	480.00
PTCashT			35,157.98		36,500.36
	Total		52,741.48		54,230.46

The public domain version of Chiwriter comes complete with support for 9-pin dot matrix printers of popular varieties - serviceable for many purposes but not for the finest output. Only by purchasing the product (at $US79.95) can the driver for a 24 pin dot matrix printer (at $US19.95) or Laser printer (at $US49.95) be obtained. We used the latter to produce the final document on an HP Laser Jet Series II although an Epson LX-86 was used for all earlier drafts.

Evaluation copies of PC CALC and Chiwriter are available free from other users and user groups or can be purchased directly from the suppliers. Their addresses are:

Chiwriter: Horstmann Software Design Corporation, P.O. Box 5039, San Jose, CA 95150, U.S.A.

PC CALC: Jim Button, Buttonware, Inc., P.O. Box 5786, Bellevue, WA 98006, U.S.A.

Many other good spreadsheets and word processsors are available in the shareware market.

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