By Lloyd R Borrett

IT IS NOT feasible to carry out a full evaluation of all similar software packages before selecting one as 'The Best'. To overcome this, I carefully study all product reviews available and select one package in each category for review. If it meets my requirements it's added to my list of recommended packages.

When consulting with potential users I find most of their software requirements are met by items on this list. If not, we track down a suitable product, and update the list. Often these users have come to me after talking to the sales staff of IBM dealers. Usually they complain of feeling the dealer was recommending only items in stock, or those with the greatest mark-up. Potential users are not in a position to carry out full evaluations, so they look elsewhere for independent advice.

For what it's worth, here's the list. The items marked ** are in day-to-day use. Those marked * are packages which have only been reviewed. The unmarked items are on my wish list, having been selected after reading reviews by others.

Systems Software

Languages:
** IBM/BASIC Compiler
** IBM/BASIC Program Development System
IBM/Macro Assembler
IBM/Fortran Compiler
Computer Innovations/CI C86 C Compiler
Logitech/Modula -2 Compiler
Digital Research/DR LOGO
Utilities:
** Central Point Software/Copy II PC
Peter Norton/Norton Utilities
** Rosesoft/ProKey
SSI/P-Edit
Softcraft/Btrieve
** Micro Ware/87 BASIC
Micro Ware/87 Macro
Micro Ware/87 Fortran

Applications Software

Communications:
** Persoft/SmarTerm/PC TE400-FT
* Persoft/SmarTerm/PC TE100-FT
* Microstuf/Crosstalk XVI

Data Management:
** Ashton Tate/dBase II
** Fox and Geller/Quickcode
** Fox and Geller/dUTIL
Humansoft/DBPlus
Micro Technical Products/Cardbox
Financial and Spreadsheet:
** Lotus Development/1-2-3

** Software Arts/TK!Solver
** Software Arts/Financial Management Pack
Graphics:
** PCsoftware/PCrayon
Software Projections/Slide-Pro
BPS/BPS Business Graphics
Project Management:
Harvard Software/Harvard Project Manager
Word Processing:
** Softword Systems/Multimate
Oasis Systems/The Word Plus
Oasis Systems/Punctuation and Style

Educational
** Individual Software/The Instructor
** Individual Software/Professor DOS

Of equal importance would be a list of the packages tried and rejected, but I haven't the space to include it. Some of these packages are not handled by distributors in Australia, and have to be purchased via United States mail order houses.

Naturally, there are gaps in the list. In some cases this is because the category hasn't come under close study yet, in others it's because the packages available have been rejected.

Getting An IBM-PC At A Discount

I have found you can buy your IBM Personal Computer for 18 per cent less than IBM wants you to pay. IBM manufactures certain parts of the PC, while other manufacturers produce the rest of the system with IBM acting as the middleman.

Some of the IBM components are competitively priced. However, for most of them, and nearly all the components manufactured by other companies, it is a different story. Prices there range from high to outrageous. This is where we can obtain our discount.

I will assume that you require some serious computing power. A suitable configuration would include at least 256K of memory, two double-sided disk drives, one serial port, a printer and a monochrome screen. The following table shows the price for this system, as purchased from your IBM dealer, with only IBM components:

*System unit: 64K memory, 360K disk drive	$3429
Monochrome display	$ 644
*Monochrome and printer adaptor	$ 516
80 cps graphics printer	$1004
Printer cable	$ 89
64/256 memory expansion option	$ 534
Two 64K memory expansion kits	$ 502
Second 360K disk drive	$ 821
Async communications adaptor	$ 188
Async communications cable	$ 122
Total:	**$7849**

Table 1.

To obtain a discount, first buy those items which are unique to IBM. These items are marked in the previous table with an asterisk. The total cost is $3945.

Next, focus your attention on the remaining items. This, bargain shoppers, is the part of the computer that IBM does not make, and can be purchased in single quantities from the normal distribution sources. The following table gives the prices you should expect to pay:

IBM-supplied components	$3945
Samkor MCG-12G green video monitor	$ 185
Epson RX-80FT printer	$ 740
Tandon TM100-2 disk drive	$ 385
Sigma Design SDI-ESC	
192K memory, one serial port, games adaptor, free software, one parallel port, calendar clock	$1000
Async communications cable	$ 60
Printer cable	$ 60
Total:	**$6375**

Table 2.

That is a saving of $1444, or more than 18 per cent. If you are still with me, you must be interested, and you will be waiting to find out the catch. Well, there are a few. First, and most obvious, you must give up the convenience of one-stop shopping.

The sources of the cheaper components? Ellistronics in Melbourne assure me that the Samkor video monitor is compatible with the IBM PC, although I haven't tried it yet. There are IBM dealers and electronics stores which have other compatible monitors. Try out any monitor before buying, to see if you find the resolution acceptable.

Most computer stores carry the Epson printer. Just shop around to find the best price. The Sigma Design SDI-ECS multifunction board is but one such board now readily available. If you follow a 'Buy Australian' policy, you might want to check out the Plus-5 board from Personal Computer Peripherals.

The Tandon disk drives can be obtained from Adaptive Electronics, 418 St Kilda Road, Melbourne 3044. Phone: (03) 267 6800. They should also be able to put you in contact with a Tandon dealer in your local area. For the cables, go to your nearest electronics store and buy the bits to make them up yourself.

Another catch is the aesthetics of buying the cheaper equipment. The printer will not sport an IBM paint job. Worse still, the printer, monitor and diskette drive will not have an IBM logo. The rest of the items are out of sight, so who cares?

This next disadvantage might put some people off. If you buy a complete system from your friendly local IBM dealer, it should be delivered completely ▶
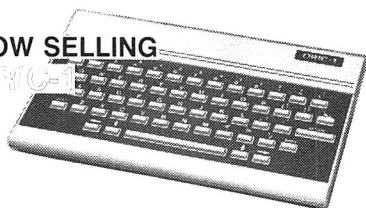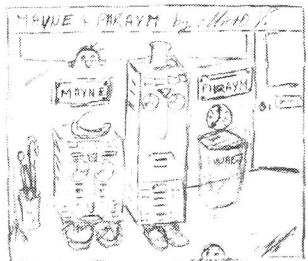
IBM

assembled and checked out. If you buy individual components from different sources, you have to assemble and check them out yourself. The only component that may cause problems is the second diskette drive.

Installing Diskette Drives

You will find detailed instructions in the 'Guide to Operations' manual about removing the cover and gaining access to the internals of the PC. As you should already have the IBM controller board and one diskette drive, you should also have the associated installation manual. For those who don't, a brief description follows.

Probably the hardest part of the whole installation is to remove the cover plate over the opening where the drive goes. Once you have the cover plates out of the way, slide the diskette drive half-way through the front mounting panel. Keep the drive as straight and level as possible as you install it. If you cock the drive, you can catch board components and break them off.

Connect the power supply connector to the bottom side of the logic circuit board. Either connector may be installed in either drive; just make sure that it's orientated correctly. Now, connect the signal cable. These connectors are not interchangeable. Slide the diskette drive in until the front panel is flush with the system unit face plate. Mount the diskette drive, with two 6-32 by 3/8" screws through the side mounting plates.

The final task is to carry out termination and configuration. Termination is easy: just make sure the terminator chip is plugged in to drive A, and remove the chip in drive B.

Configuration requires that you remove the jumper DIP from the new drive and break six of the seven links. Only the third link – counting from the left-hand side, looking towards the front of the system unit from the rear – should remain. The easiest way to do this is to turn the jumper DIP over, lay it on a hard surface, and punch out the unwanted links with a jeweller's screwdriver.

Now, reinsert the DIP, being very careful to get the remaining link in the proper position. To complete the installation, set the system board switches as instructed in the 'Guide to Operations' manual. Replace the cover on the system unit and run the IBM diagnostic program.

Warranty

The final complication in this method of obtaining a discount has to do with your warranty. If you buy all the recommended components new, they are all individually guaranteed, but not by IBM. If you have problems, it will be your responsibility to determine what component is in error and send that component to the proper place for service.

If an IBM component needs service you must (according to IBM) remove all non-IBM parts before sending the unit in for repair. However, there are already a number of independent service firms which will take on the maintenance of the complete system. So, if during the warranty period you have a minor problem with an IBM component, it should be easier to have an independent service firm carry out the repairs. If it's a major problem, take out the non-IBM components and use the official channels. Once out of warranty, the independent service firm would be used for all repairs.

The problem is not as great as it may at first seem. You can buy less expensive monitors and Epson printers from most IBM dealers. Some IBM dealers are installing Tandon diskette drives, but charging IBM prices. You may be able to get your IBM dealer to install the Tandon drive and charge Tandon prices. Many dealers and independent service firms will supply IBM compatible cables which cost a lot less.

In summary, you can obtain large hardware savings if you are prepared to put up with the possibility of some inconvenience. If you talk to your IBM dealer, you may still be able to achieve one-stop shopping with full warranty cover, but may not achieve the same level of savings.

I admit that a near optimum case has been presented and that I didn't use all these options when putting together my system. At the time my system was purchased, compatible monitors were not readily available, although I've yet to see one with a standard of resolution which matches the IBM monitor. I did buy an Epson MX-100 printer, an AST Research MegaPlus multifunction card, and two Tandon diskette drives.

It is up to you to decide how far you are prepared to go.

IBM-PC User Groups

Don Richards is trying to start up an IBM-PC user group in South Australia. Those of you who are interested should contact Don on (08) 261 9590, or write to PO Box 68, Walkerville 5081.

The first meeting of the Melbourne PC User Group was held late in November

'83. My thanks to those dealers who offered their help, and special thanks to Computer Power, who provided the venue and organised the refreshments.

Over forty people attended the meeting, and a simple survey showed it was a fairly representative group with a diverse range of interests. Everyone was keen to see the group properly established, and an interim committee was appointed. The second meeting will be held at 5.30 pm on Wednesday, February 8, 1984, at IBM's offices, 211 Sturt St, South Melbourne.

The contact for the group is:
Christopher Leptos
c/- Pannell Kerr Forster
500 Bourke St
Melbourne 3000
(03) 605-2222.

Another user group has been formed in the Illawarra area. The Illawarra IBM-PC Club holds its meetings on the first Tuesday of each month, starting at 7.30 pm, at the John Lysaghts Springhill Training Centre.

Public Domain Software

As the deadline for submitting this column grows near I'm close to finalising arrangements for the distribution of the PV/Blue User Group Library diskettes. A summary of the library contents will appear in the next column, along with full details of where to get the diskettes.

The full catalogue, which contains a table of contents and brief description of the files, is available, post-paid, for $10. The address for orders is:
PC/Blue Library
c/- PC Connection Australia
8/34 Elizabeth St
Elsternwick 3185.

Make your money order or cheque payable to PC Connection Australia. All orders must be prepaid.

Unprotecting Lotus 1-2-3

For those of you sick of not being able to back-up Lotus 1-2-3, or fed up with requiring a diskette to use 1-2-3 on the XT, here is a patch which disables the Release 1A program's protection mechanism.

First, format a new DOS system diskette, and then use the COPY command to copy all the files from your Lotus 1-2-3 system disk onto the new diskette. The example assumes that a DOS system diskette with DEBUG is in drive A and the new Lotus 1-2-3 diskette is in drive B.

Enter all underlined text exactly as shown; be sure to include spaces. End each entry line with the 'enter' key. The computer responds with all other output.

```
B>rename 123.exe 123.old
B>a:debug 123.old
-eaba9 90 90
-w
Writing 15F00 bytes
-q
B>rename 123.old 123.exe
```

Epson FX Series Printers

All the Epson FX series printers I've installed recently came with the internal DIP switches set to select the English character set. Unless the US character set is selected, you will have some strange-looking printouts.

The FX series of printers has a 2K buffer. However, the factory setting of the DIP switches disables the buffer, which allows you to down-load your own definitions for two additional character sets (256 characters). As I've yet to come across a software package which makes use of this feature I suggest you change the switches to enable the buffer. Then, short documents can be printed while you continue with other work.

The settings recommended for Switch #1 (SW1) are:

*	1	2	3	4	5	6	7	8	*
*	OFF	OFF	OFF	ON	OFF	ON	ON	ON	*

Table 3.