COMPUTERS
What to buy and

by Ken Richardson

In the previous, two, articles, I have looked at hardware, that is, the parts of a computer that you can see; and software ie the instructions that make a computer do what you ask. In this, third, article, I will look at what to buy, where to buy it and look at some of the costs involved.

What to buy

Many people have asked me 'What sort of computer should I buy?'. This is a very difficult question to answer as it depends on several things, eg. what do you want the computer to do and how much money do you have to spend. There is a wide range of dealers hoping to sell both hardware and software and they will try to sell you what they think you need. Therefore, before setting off to your local computer shop or picking up a computer magazine, you need to decide what tasks you want to perform using a computer. This is not easy to decide as you can only begin to see what computers are capable of, when you become familiar with them. However, with some thought, you may be able to formulate a plan. The most critical factor is cost ie how much are you or your golf club willing to pay, although you could convince your club to spend a little more money if you made a good enough case. Lets look at some of the points to consider.

Which Applications do I want to run?

As I explained in the Software article, all applications state their particular processor, memory, hard disk and monitor requirements on their packaging. You must decide which and or how many applications you wish to run. Remember that the operating system selected ie DOS, Windows or Windows 95 also determines processor, memory and hard disk requirements. For example, let us suppose that you want to run MSWorks and TRIMS under the control of Windows 95.

Requirements:

Application	Memory	Processor	Hard Disk
MSWorks	4 Mb	386SX	14 Mb
TRIMS	8 Mb	386SX	25 Mb
Windows 95	8 Mb	486 DX	120 Mb

Therefore, a minimum of 8 Mb of store (software only uses memory when it is running), a 486 DX processor or higher and 160 Mb of hard disk space are required. Remember that this is the minimum requirement and does not allow for other applications or storage of data. Similar calculations can be performed for other applications.

Peripheral Devices

When considering applications, you must also consider peripheral devices such as printers, plotters, compact disks and sound systems and 'add ons' such as modems and Internet
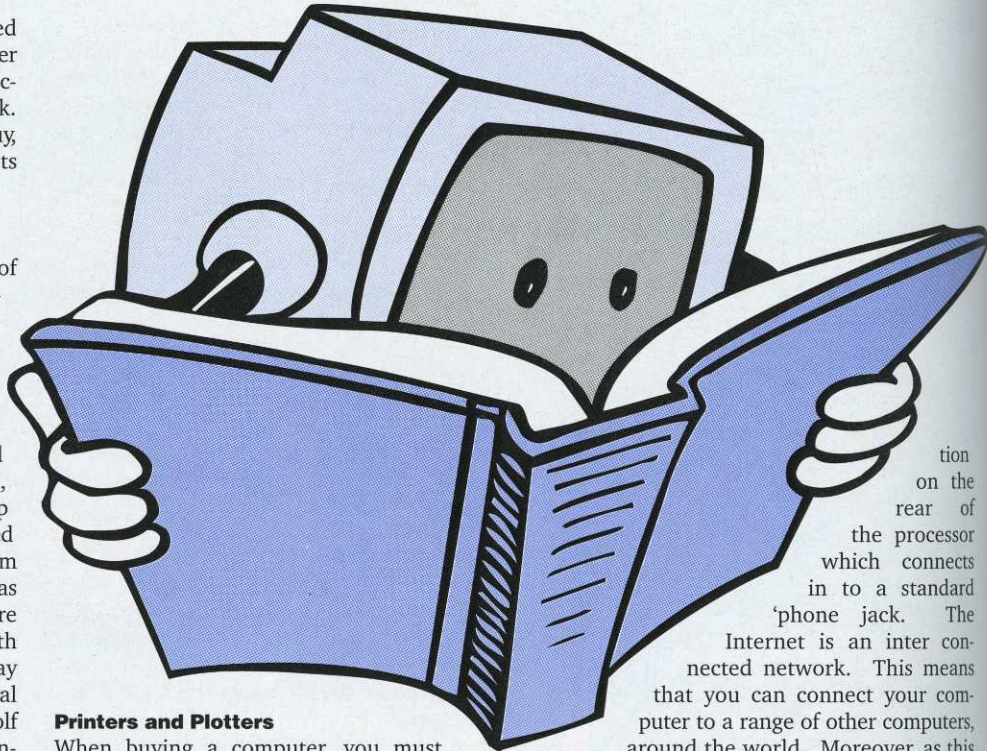
Printers and Plotters

When buying a computer, you must decide what you need to print, if you need it in colour and how much printing will be required. As I mentioned in the article on hardware, printers come in three main types ie dot matrix, bubble (ink) jet and laser. Laser gives the best quality print but at the highest price, dot matrix is cheap, slow, noisy and fairly poor quality whereas bubble jet give reasonable quality at a reasonable price, is fairly quiet and can print in colour. However, ink cartridges cost approximately £20 and bubble jet can be expensive if printing large amounts. Plotters are needed if you are considering producing plans or designs.

Compact Disk Drives

Compact disk (CD) drives are now available on most new computers. Many software titles are available on CD, especially those needing large amounts of data eg encyclopaedia. Reference data for turf science and turf management eg identification of pests and diseases is becoming available and the number of titles will increase with demand.

Sound Systems

Sound cards, loudspeakers and associated software is available, however, it is debatable if they are necessary on office computers.

Modems and Internet

If you are contemplating becoming a user of the Internet, you will need a modem and appropriate software. Modems allow computers to communicate with other computers via a telephone line. If you buy a computer with a modem installed then you will see a connection on the rear of the processor which connects in to a standard 'phone jack. The Internet is an inter connected network. This means that you can connect your computer to a range of other computers, around the world. Moreover, as this connection is through a local computer, you pay telephone charges only at local rates. For example, you could access the pages for the Golf Course Superintendents of America from the computer in your office by telephoning the computer in the office of your Internet supplier which may only be 10 miles away. You can also send and receive E-mail, using the Internet. E-mail is electronic mail and allows you to type messages into your computer and send them to any part of the world for the price of a local telephone call.

Once you have considered what applications you want to run you can then begin to look at purchase options. Unfortunately, you may have have decided to buy a computer system with a particular configuration and then find that you cannot buy it as it has become obsolete in computer terms. You should then look to buy the highest specification computer that meets your budget. The next step is to decide where to buy and even whether to buy new, buy second hand or even use a computer from another part of the golf course.

Where to buy

As I suggested above, the cheapest way of obtaining a computer is to inherit a system from an office which is buying a new system. This has many disadvantages, however. Eg. The software application may not be what you want, the processor may be old and slow, the system may not be able to be upgraded, spares may be impossible to find and maintenance difficult to arrange. Therefore, if you have made a case for using a computer in your office then it should not be difficult to make a

where to buy it

case to your club for buying the computer that is needed.

Computers can be purchased second hand. Indeed many companies sell out dated ie lower specification than current computers that have had little or no use. However, unless you are very knowledgeable and/or have a good relationship with a computer hardware technician then you could be buying trouble. If, however, money is limited and appropriate guarantees can be sought from the supplier then you might consider this option.

Buying a new computer can be even more daunting then buying second hand. There is a bewildering range of computers, a vast range of prices and many different outlets. You could visit your local high street electrical store, a computer warehouse, visit a computer specialist, purchase direct from a manufacturer or use direct mail.

High Street Stores There are several High Street Stores that sell or rent computer hardware, software and peripherals. The advantages of these stores is that you can see what is for sale, you can calculate the price of a system, you can see how the system operates and you can discuss your requirements face to face with the salesperson. The main disadvantage is price. High street stores prices tend to be higher than warehouse prices or direct mail. Warranty can usually be arranged with servicing being done in the home, but check that this is included in the price.

Computer Warehouse Most large towns and cities have at least one computer warehouse which sell the whole range of computers, software, peripherals, up grades, books and stationery. Prices tend to be lower than at High Street Stores and you can view and try a wide range of systems. It can be a bewildering experience, however, if you do not have a very good idea of what you want before entering the warehouse.

Computer Specialists Many towns and cities have at least one specialist computer supplier. These can be local suppliers of top brand name computers or small independent suppliers, many of whom make up computer systems to order. Top brand names can be expensive but they can give you piece of mind. Small independent suppliers can give excellent service and good value for money. However, you need to sure that they will remain in business, at least for the duration of your warranty.

Direct Mail Computer magazines seem to contain more advertising than editorial and most adverts' are for computer hardware and software. You can buy from a major manufacturer, from a direct mail supplier or from a small independent. The main disadvantage of buying by direct mail is that you cannot see what you are buying. However, prices are very competitive and you can compare a number of suppliers.

Practical Considerations Let us suppose that your club has agreed to the purchase of a computer for your office and that you have decided what software applications you want to run. How do you compare what the different companies have on offer, when each company gives differing descriptions, supplies different software and has different prices for peripherals such as printers? Firstly, write down your needs: Eg.

Basic requirements
Processor: Pentium 133 Mhz
Memory: 16 Mb RAM
Monitor: SVGA colour
Hard Drive: 1.2 Gb
Floppy: 3.5 inch
CD ROM
Built in Modem
Windows 95
MSWorks
Colour bubble jet printer

Secondly, determine the cost of the basic system (without software) from your chosen supplier or suppliers. You may also be given a great deal of other information which can be confusing, however, try not to let it confuse you too much. Once you have got your list of suppliers down to three or four, you can then start to see what else you get for your money eg Windows already fitted, MSWorks already fitted, a range of software supplied 'free', extended warranty, at home or return to manufacturer, is the system expandable, how many expansion ports has it got, does it have cache memory, does it have a graphics extension card etc.