Practical Choices for Hardware and Software

The choices we have to make when selecting hardware and software appear very difficult for most of us. The unrelenting rate of change and the torrent of information we are bombarded with is so confusing and intimidating that it can make navigating a traffic-jam in the Parisian rush hour look easy.

One of the problems is that when it comes to computers we are all surrounded by well meaning semi-experts - the bloke in the pub, your husband, your children and even mini-cab drivers. The clue is that these so called experts are usually more interested in demonstrating their skills and playing with the technology than your need to earn a living - they are what I would call computer freaks.

So you are being patronised by the computer experts and your desk is a metre deep in computer magazines. In short, you have more raw data than any one person can assimilate in a lifetime. How do you make sense of it all? How do you take sensible decisions?

What you need to do is start from some basic principles which follow from answering two simple questions - "Why do you need a computer?" and "Are you going to waste your money?":

• Why do you need a computer ?

It doesn't matter whether you work inside a corporation, for a translation company or as a freelance translator - all professional translators work for customers. The customers set their own demands, and pay your wages.

There are ONLY three reasons why translators need computers, everything else is peripheral:

1. Work - to enable you to work productively and efficiently.

2. Compatibility - to enable you to transfer work to (and sometimes from) your customers' and colleagues' computer systems in a form which is reasonably compatible with theirs.

3. To Look Good - or to maintain a suitable quality of presentation. In many cases this is as much a matter of marketing as anything else - but no less important for all that. It is important to remember that many of your customers don't have the linguistic skills to fully appreciate the value of your work - this means that your work looking good, both on screen and on paper, has a very big influence on their opinion of you.

• Are you worried that you will waste your money buying out of date equipment ?

The short answer is that your computer will be out of date even before you buy it - but as long as you make a reasonable choice you will get a good return on your investment.

The natural feeling for all of us is that the rate of change is going so fast that it is not possible to plan or make any rational decisions.

However, I first learned to use a computer way back in the ancient history of 1969 and started setting up PCs for translations back in 1986 when Catherine Marguet and myself started Marguet & Ball Translations. Looking back on it, the really amazing thing, which is in fact contrary to all our perceptions, is that the rate of change has stayed, and continues to stay, almost completely constant over all that period of time. This more or less constant rate of change is the key which enables us to make sensible decisions.

Again, you can bring this down to three basic principles:

1. Don't be a guinea pig - that is to say if you can possibly avoid it don't spend significant amounts of money buying the very latest technology. It costs at the very least twice as much and may prove to be a failure which is dumped tomorrow. Think three times before buying version one of anything.

2. Stay with proven technology - Choose both hardware and software which is as standard as possible. In general this means designs which are between one and two years old - but I will go into more detail shortly.

3. Don't buy End-Of-Line Stock - Unless your economic circumstances give you absolutely no choice do not buy new computers which are just going out of date - they may look cheap but even in the short term they are usually very bad value for money.

For the last 25 years computers doubled in power every couple of years and new computers lost 50% of their cash value in the first year. There is no reason to think that this is going to change in the foreseeable future.

However, what is really important are the benefits you get from your investment. Making good choices you can expect 2 years use when your equipment is reasonably up to date and another 3 years when your equipment is out of date but still perfectly acceptable. After 5 years your computer will probably still work but will not really fit in with the rest of the world.

Narrowing Down the Choices

To start defining your needs in more detail you need to go to the heart of the matter. What you need are tools which will enable you to work productively and efficiently as a translator.

• Word Processor

At the very centre of your work is your word processing software, which you need to test against your own needs:

1. Work - First of all your word processor absolutely must support the character set of language you work into and preferably those of the languages you work from. It should include at the very least a spell checker in your chosen language, although very few translators seem to find grammar checkers useful. Most translators need tables and columns at least some of the time and technical translators need the ability to insert and edit mathematical formulae. The ability to insert pictures, charts and spreadsheets inside a document is slowly becoming more important. Luckily all of these features are included with the major word processing packages at least for the major Western European and Scandinavian languages.

2. Compatibility - this is without a doubt the requirement which has the most restrictive effect on the specification of your equipment. Since computers became omnipresent the nature of documents has changed. They are no longer just pieces of paper, written in general by one person. Documents are now electronic entities, shuffled around the corporate network, edited, revised, incorporated in other documents and plagiarised - the paper printout almost seems to be incidental. Customers now increasingly expect translators work to fit into this pattern.

   The vast majority of customers in Western Europe use either "IBM compatible" PCs or Apple MACs. The PCs are further subdivided into the older systems running DOS software and newer systems running Windows software. On PCs Microsoft Word and WordPerfect are in a head to head battle for dominance of the word processing market, whilst on MACs Microsoft Word is probably the most popular package.

   If all, or almost all your customers use MACs you will probably find it more convenient to use a MAC yourself. I am not an expert on MACs and so I will be concentrating on PCs particularly running Windows, although the general principles are of course still valid.

The type of system which gives you direct or indirect access to the greatest possible range of customers would have Microsoft Word or WordPerfect running on a Windows computer. They do have different strengths and you will obtain maximum flexibility by running both on the same computer.

I would summarise their main points as follows:

Both Word For Windows 6.0 and WordPerfect for Windows 6.0a

- The 12 languages included as standard in Western European copies of Windows (and Windows For Workgroups) 3.1x are properly supported. Spell checkers are available for each language as an extra. These languages are: Danish, Dutch, English, Finnish, French, German, Icelandic, Italian, Norwegian, Portuguese, Spanish & Swedish.

- Full range of formatting up to desktop publishing. Fonts, layouts, tables, borders, boxes, shading, complex mathematical formulae, embedded graphics, charts and spreadsheets - much more than most people ever use.

- Conversion: both programs provide the best available support for previous versions of their own software including the DOS and MAC versions.

- Reasonable support for conversion to and from the file formats of a wide range of other software. However, this support is somewhat patchy and is in any case dependent on the capabilities of the other software. The conversion is usually reasonably OK for text including accented letters in the Western European languages, the conversion of tables is frankly poor and they will need reformatting after conversion. Complex mathematical formulae do not convert at all and will need to be recreated. Links to embedded graphics, charts and spreadsheets do not usually survive the conversion process and will need to be recreated if possible.

Word For Windows 6.0

- Very poor to non-existent support for languages other than the 12 standard Western European languages.

- Very good for conversion to and from MAC particularly Microsoft Word for the MAC.

- Relatively easy to learn, particularly if you have used a previous version of Word.

- By modern Windows standards Word makes efficient use of your computing power - this means that overall it requires a slightly less powerful computer than WordPerfect and runs faster.

- Minimum recommended requirements to run Word For Windows 6.0 - 486sx 25 MHz processor, Windows 3.1, 4Mb RAM, 170Mb hard disk.

WordPerfect for Windows 6.0a

- Supports a wide range of languages including, so far as I can tell, all European languages both Western and Eastern. Unfortunately the support for languages outside the standard 12 is far from perfect. Requirements for computer memory (RAM) and processing speed escalate, printer fonts are limited and printer speed falls through the floor.

- Very good for transferring work to and from the enormous installed user base of WordPerfect 5.1 for DOS users. The easiest Windows word processor for translators who previously used WordPerfect for DOS.

- WordPerfect for Windows 6.0a is greedy for computing power. It requires more RAM, more hard disk space and a faster processor than Word - but on the right system it runs well.

- Minimum recommended requirements to run WordPerfect for Windows 6.0a - 486sx 33 MHz processor, Windows 3.1, 8Mb RAM, 170Mb hard disk.

If you only need to supply straightforward text documents you will be able to use just one word processor package to support all your customers. However, you will probably need to use both Word and WordPerfect if you need to include tables or formulae, or you need to swap revised files back and forth with your customers.

3. To Look Good - luckily this is both much easier and cheaper than it ever used to be. Even though many jobs are now sent back electronically you still need to print out on paper for final checking and proof reading.

   Modern printers suitable for use with Windows are of two main types: laser printers and inkjets (sometimes called bubble-jets). Both types give very acceptable output and in general what you see on a Windows screen will be faithfully reproduced on your printer. Neither type is truly silent although the noise levels are so low that you can happily talk on the telephone next to a working printer. The vast majority of people use monochrome (or black & white) printers.

Three main types of printers are popular with translators at the moment:

- Inkjet Printers: These are the cheapest but slowest, print resolution 360 dots per inch but bigger dots than laser printers. Maximum print speed about 2 pages per minute. Can be very good for straight text, sometimes less good for complex graphics. Don't need extra memory for complex pages.

- Basic Laser Printers: Middle of the range both for speed and price, print resolution 300 dots per inch. Maximum print speed about 4 pages per minute. Good for text and graphics but will need extra printer memory for complex pages.

- High Quality Laser Printers: Very nice for speed and quality, most individual translators would consider them a bit over the top. Print resolution 600 dots per inch, maximum speeds start at about 6 pages per minute. Very good for both text and graphics but will need extra printer memory for complex pages.

• Making the right investment

You should now be in a position to make a more precise specification for your core computer system. The actual choice will vary depending on your business needs, your budget and when you actually make the decision to proceed. Normally, I prefer to make personal recommendations after an individual discussion.

However, I am sure that you would want me to make some precise recommendations now, although it is certain that some of you would disagree with me. By necessity my recommendations have to be fairly broad because your individual needs vary:

- Word processor: Word For Windows 6.0 and/or WordPerfect 6.0a.

- Processor: minimum 486sx 25MHz, maximum Pentium P60.

- Memory: minimum 4Mb RAM for Word, 8Mb RAM for WordPerfect. More is always nicer but you will see little improvement for going higher than 16Mb RAM.

- Hard disk: minimum 170Mb, anything over 420Mb probably excessive.

Printer: minimum inkjet - say Epson Stylus 800+ or Hewlett Packard DeskJet, maximum (budget and desk space permitting) Hewlett Packard LaserJet IV, possibly with extra memory.

Future Developments - Windows 95

I am sure that you will have seen some news of the next version of Windows, originally called Chicago, then called Windows 4 by the press and now called Windows 95 by Microsoft. Microsoft say that this will be released to the public some time in the first half of 1995.

The West European version of Windows 3.x has been important for linguists because it provides solid support for Western European and Scandinavian languages. This is particularly valuable because you can rely on anyone else you work with having these multilingual capabilities available to them as standard.

The new version Windows 95 is usually known for being better matched to today's powerful computers. However, what is much less well known is that it will provide greatly improved support for working in a much wider range of languages on standard computers.

Windows 95 will be released in 27 languages, with possibly more versions following later. Major Western European languages will ship very soon after the US version, and the Far East versions are expected within six months. Each language version falls into one of three categories:

1. Western and Eastern European languages (English, German, French, Spanish, Swedish, Dutch, Italian, Norwegian, Danish, Finnish, Portuguese-Brazil, Portuguese-Portugal, Russian, Czech, Polish, Hungarian, Turkish, Greek, Basque, Catalan, and Indonesian), which are based on single-byte character sets and are written from left to right.

2. Middle East languages (Arabic, Hebrew), plus Thai, which are based on single-byte character sets from both right to left and left to right.

3. Far East languages (Japanese, Korean, Simplified Chinese, Traditional Chinese), which are based on double-byte character sets and are written from both left to right and, in certain types of applications, from top to bottom.

Windows 95 will support multiple code pages and multilingual content for documents. For example, you will be able to type English, Russian, and Greek characters into a single document. Most versions of Windows 3.1x by contrast support only one code page (although Eastern European and Middle East versions can support two).

Versions of Windows 95 that fall into category 1 will support characters from any other language in that category. Category 3 versions of Windows 95 will each support one native character set and all the character sets in category 1. So, while you could combine Japanese and Greek in one document, you could

not mix Japanese and Chinese or Japanese and Arabic. Category 2 versions will most likely support multiple character sets from categories 1 and 2.

Windows 95 implements multilingual support through font marking (Arial becomes Arial Greek, Arial Cyrillic, and so on) and keyboard switching. Each character set installed in the system has associated with it a default keyboard layout.

Whilst it is still too early to tell how all this will work out in detail it is already obvious that Windows 95 is likely to be very important as a uniform operating system supporting all of Europe's languages. I would expect that the effects of this will take several years to work their way into the translation industry from the middle of next year.

Security - viruses and backups

I make no apology for finishing by raising, however briefly, the question of security - in particular the two old favourites of backing up your data and the problem of viruses. The number of calls I receive saying "Help - disaster has struck!" is not decreasing, far from it - it is increasing.

- ### Backing Up Your Data

  Hard disks are physical machines with moving parts - the laws of physics and the principle of entropy apply to them. It is as certain as death and taxes, ALL hard disks fail. YOUR HARD DISK WILL FAIL - it is not a matter of if but when! I know you don't want to think about it but when did you last back-up the hard disk that your business depends upon?

  It's not enough to just back up your data files. Modern computers with a 100Mb or more of configuration, programs and data can be very hard work and extremely time consuming to recreate. The only way to be really secure with modern computers is with a tape streamer - it is just not practical with floppy disks any more.

- ### Viruses

  Viruses haven't gone away, they just get less publicity. However, the most straightforward virus programs will stop all the viruses I have so far seen in the translation profession. Only this week I had to clean up an outbreak affecting a number of translators. Use anti-virus software, any anti-virus software is better than none, and check every disk and computer entering your office. So far as I can tell, this latest outbreak started from a second hand laptop and then spread by disks passed from one translator to another.

Peter Ball is Chief Executive of Computers For Linguists
45 Endwell Road, London SE4 2NE
Tel: 0171-732 1740
Fax: 0171-358 9214
Modem & BBS: 0171-652 0132 (8N1, 1,200-14,400)