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The growing range of document preparation systems available for translators from the simplest tools to the most sophisticated modern word processors

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INTRODUCTION TO VUMAN COMPUTER SYSTEMS

Vuman Computer Systems Ltd is a company wholly owned by the University of Manchester. We have been involved with the development and marketing of word processing software since 1981. Our product Vuwriter was one of the first word processing packages to provide non-standard character sets. It began life as a tool for scientists, allowing mathematical, Greek and technical characters to be included in normal text. The natural progression was to develop this idea into the language field and in 1985 Vuwriter Language Master was launched. As well as providing normal and italic characters, Vuwriter Language Master offered a Cyrillic keyboard, a Greek keyboard, and a European keyboard with Eastern and Western European characters and accents.

Earlier this year Vuman launched a completely new product, VUWRITER^{II}. This still caters for specialist multilingual and scientific needs but offers much more sophisticated word processing features. It overcomes the traditional problem of the specialist package offering non-standard facilities at the expense of high performance features and the standard products offering more and more functions but generally ignoring the needs of users who require special character sets.

INTRODUCTION TO THE PAPER

What I intend to do today is to look at the complete document preparation scene from the simplest systems to the most complex. I will examine how each level is relevant to the translator and how each level relates to each other.

I will finish by examining why there have been major leaps forward in document preparation systems for translators in the last couple of years and the likely way forward.

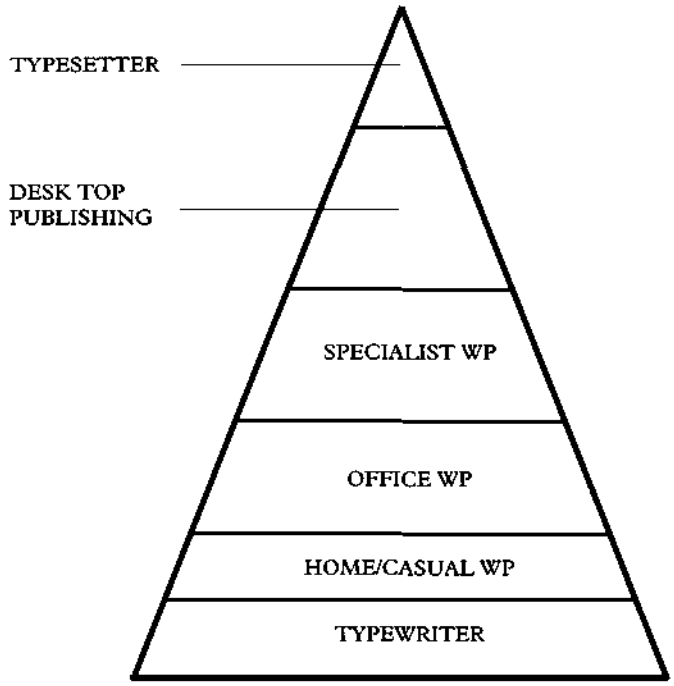

Figure 1. Document Preparation Systems

THE RANGE OF DOCUMENT PREPARATION TOOLS

This can be summarised by the pyramid (Figure 1) which illustrates the different levels of systems available.

An important fundamental concept is that a document can start its life anywhere on the pyramid, and with the exception of the typewriter document, it should be compatible with the other levels.

If we think back a few years it was a difficult job to create a high quality multilingual document without the time and expense of a traditional printer. The translation would probably be done on a typewriter and if publication quality output was required the document would then go to the printer for setting and production. The two tasks were unrelated and the translator had no control over the printing process.

What we have seen happen over the last few years is the closing of the gap between these two areas giving the document author far more control over the finished output. We will later examine the sort of quality that can be achieved at each level.

Perhaps the most important point about compatibility is that a document should never now need to be typed twice, and if editing is required this should be a quick and easy operation. Gone are the days when a translation would be prepared, sent elsewhere and re-typed. Now it is simply a matter of transferring a file from one system to another either by sending a floppy disk or, more effectively, using telecommunications. A file can be instantly sent via a modem link from one PC to another giving immediate access to files and consequently saving days of wasted time waiting for documents to arrive on disk.

HOME/CASUAL WORD PROCESSING

This really began with the introduction of the Amstrad PCW which offered word processing systems to the home user at affordable prices for the first time. It has now been joined by many low priced IBM compatible PCs which can be purchased together with a good quality dot matrix printer and software for under £1000.

This sort of system is an extremely useful tool for the translator provided the correct software is chosen. Most word processors now will handle Western European accented characters but it is important to consider how simply these are accessed. If you work mainly in French for example, you want the French accented characters to be obtained with a single key press. You do not want to go through a long and complicated series of key presses to access characters you need regularly.

And what about languages other than Western European, Russian, Greek, Polish and so on? It is a good idea to ask to see samples of your required languages printed out before buying, or better still obtain a demonstration disk so that you can actually use the system and ensure it copes with all your requirements. For example, if you need to produce text in Russian, with headings, sub-headings, body text and notes all in different character sizes, make sure the program you buy offers this sort of flexibility.

It is not always advisable to look at a checklist of features of a program as many of these may never be required and can in fact obstruct the user from easily accessing the functions they require regularly. What you should expect from a system at this level is a full featured program that simply and quickly gives you access to the character sets and functions you require. It should produce a clear but not publication quality output ideal for draft copy and proof reading.

THE OFFICE OR SPECIALIST WORD PROCESSOR

This system should go a step further than the simpler level just discussed. A very important factor here is that if a system is in use at home or in one office, it should be compatible with that used in another or a central office. This is particularly relevant in the translation field. For example, a company may use many translators who work at home or in their own offices and want to send work which has been prepared and proofed elsewhere by one of the methods discussed earlier.

This can be potentially difficult with documents containing characters other than those included in the IBM extended character set, i.e. the common Western European characters. There is no common Russian character set used, and so if a Russian document has been prepared in one system it will either have to read into the same program or a program which has a conversion utility.

It may be that the file is just printed out in its present state, the object being to produce a high quality document on a laser printer. Alternatively, additional editing may be done at this stage, such as redesigning the page layout into multiple columns, adding graphics to the text, enlarging headings and so on.

The appearance of the finished document is of course going to be determined by the capabilities of the word processor used at this level and the printer in use. There are many different laser printers on the market starting at around £700 for a Hewlett-Packard compatible outputting 4 pages per minute with a resolution of 300 dots per inch. Higher specification machines are available for large volume production and if you have the resources laser printers can provide A3 paper size and colour options. A Postscript printer will enable you to produce much larger characters than are possible with a Hewlett-Packard laser printer.

This professional system should therefore provide all the features required and should read the files created by other systems in use to avoid the unnecessary typing of documents over and over again. This level of document preparation should be capable of producing a professional publication standard output.

DESKTOP PUBLISHING

Desktop publishing is a concept which has been widely discussed since 1987. It is really quite a different tool to word processing in that it is not designed to create text but rather to provide a framework into which text produced in a word processor can be poured and manipulated.

To illustrate this idea, think about the front pages of two different newspapers, for example the *Daily Telegraph* and the *Guardian.* You will find that even without looking at the names you will recognise which is which. This is because they each use their own specific style. This style sheet controls the size and type style or font used for headings, sub-headings, body text etc., the amount of space left under headings and at the end of paragraphs and articles, the instances where bullets are used to list points, where the main photograph appears etc. In other words the style sheet controls the whole layout of the page and when used consistently gives complete uniformity of presentation.

By using a Desktop Publishing package you can achieve the same uniformity of presentation for your documents, with perhaps a range of different style sheets set up for different types of documents. The idea is that the author prepares the text for the document using his favourite word processor. The text is checked for accuracy using the word processor but no attempt is made to format the text or organise the layout. This text is then poured into the frame set up within the Desktop Publishing system and can be merged with a wide range of graphics. Text can be flowed around graphics and large headings and special effects can be introduced to produce a complex document.

An important trend we can now see emerging is the narrowing of the gap between high performance word processors and Desktop Publishing. This gap will never narrow into insignificance because the two types of products are fundamentally offering different functions to the user – word processing to produce and edit text, Desktop Publishing to manipulate this text and design the page layout. For some jobs Desktop Publishing is essential to obtain the level of detail required.

However, what it does mean is that many of the new generation word processors offer so many sophisticated features such as multiple columns, graphics inclusion and a large range of type styles and sizes that you need to think very carefully about whether you really need DTP. The learning curve involved in mastering a DTP system is significant, with considerable time necessary for training and practice to perfect the techniques involved. In many cases it is much more appropriate to select a high performance word processor for the complete job. This will have the added advantage of eliminating the potential problem of finding a DTP system which will read foreign language text.

TYPE SETTING

This process goes a step further still – files can be produced with the word processor and printed on a type setting machine. Any graphics required can be pasted in at this stage. Type setters are capable of printing up to 2,540 dots per inch, providing much higher print quality than can be obtained from a desktop laser printer; this is particularly beneficial when printing scanned images or producing very large characters.

SUMMARY

The pyramid shows the different levels of document preparation. We have discussed the capabilities of each level and the compatibility between them. It is up to the users to decide what final output they wish to obtain and select a system which will best achieve this in terms of ease of use and price.

These general principles apply very closely to translators with particular emphasis on ensuring that the selected system provides the character sets required and that the files created will be compatible with their colleagues' systems.

THE WAY AHEAD FOR MULTILINGUAL SYSTEMS

The last two to three years have seen a definite trend towards including multilingual character sets in word processing, some just catering for Western European languages, others providing Russian, Eastern European languages, Greek, Arabic and so on.

I think there are two main reasons why East European facilities have grown extensively in recent years. Firstly there is a growing demand in Western countries to be able to correspond in East European languages, not only from companies traditionally involved in multilingual areas such as import/export firms, but also from more and more manufacturing companies who are now looking to these areas for new export markets.

East European countries are now demanding more sophisticated systems and I think it is in this area that the real potential lies. East European markets are set to grow very rapidly as opposed to the relatively saturated Western markets. This point is illustrated by Vuman being commissioned by Rank Xerox to design the Russian fonts to enable them to produce a completely Russian version of the Ventura Desktop Publishing system which is now on sale in Russia. Similarly a Polish version of Ventura is now available, to be followed by other East European languages.

So, with high performance systems becoming more and more accessible to users both in terms of price and ease of learning and use, and with a

growing emphasis on including multilingual capabilities into word processing systems, the way ahead for document processing systems for translators looks very bright.

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