

## Word Processing in Greek - Part One

In order to do word-processing in Greek there are a couple of problems which need to be faced.

English uses a Latin alphabet, where the letters have the shapes with which we are already familiar.

The normal English keyboard accesses the Latin characters needed for English, and there are not many keys left over for extra characters.

Greek uses different shapes for the letters of the alphabet - we need to be able to access at least 20 extra characters.

In fact, if we want a full range of characters, upper case and lower case, and some accents and other extra bits, we need an extra "keyboard". We also need a font which has the extra characters.

### Problem # 1 - A font with the Greek characters.

In the early days of personal computers and word processing, special fonts for Greek and other languages were designed. The characters were associated with the "code points" usually used for Latin characters. One used the same keyboard for both English and Greek, but had to switch between different fonts - one for English, one for Greek, one for each of any other language one wanted.

This is still a commonly-used option. One can find a variety of fonts for the various characters, and the fonts are usually fairly small (less than 200 Kb). This is fine for producing hard copy - a printed paper - but has some very great draw-backs when used for electronic copies such as .doc files and web pages. Even .pdf files can have problems with this method - the fonts have to be embedded in the document, and I have found in practice that others, who do not have exactly the same fonts on their computers may only see garble and clear boxes instead of the original characters.

For this method to work, all those using the documents or web pages have to have the same fonts installed on their computers.

In the early days of word-processing, this was the only way to use when working with a number of languages.

Font designers were free to choose which key of the keyboard accessed which foreign character, and for Greek there were several variations commonly in use. There were (and still are) a number of special Greek fonts available, many of them for free download.

For viewing web pages with ancient or classical Greek (rather than Modern Greek) it is still necessary to have a number of Greek fonts installed on the computer. Printing the web pages can raise other problems, as some printers do not handle the coding correctly.

These older fonts, which use their own systems of coding for the characters, and do not conform to the current conventions for coding, are called Legacy fonts. SPionic is one of these fonts. It was specially designed for ancient and classical Greek by Jimmy Adair for Scholars' Press, and was put in the public domain for everyone to use.

For beginning Greek students this may still look like the easiest way to start typing in Greek - BUT - it is rather a dead-end. So I suggest that my students learn to use Unicode fonts from the start.

Over many years the International Standards Organization (ISO) and the W3C consortium worked on an agreed set of "code points" - each individual character from many languages was assigned its own coding. This standard is called **Unicode**, and is now used by software designers and fontographers (those who design fonts) and is recognized by computers, keyboards, printers, web browsers. Each Unicode font should contain several hundred characters, covering the main world languages - English (Latin characters), Greek, Arabic, Hebrew, Russian, some Chinese, Japanese, and maybe some other languages. No single font covers all the possible characters of the Unicode specification. It is left to the fontographer to choose how many characters and which languages are covered. It is also left to the fontographer to design the shape of each character, so one may encounter strangely shaped letters. Because they contain so many characters, Unicode fonts are much larger (several Mb rather than a hundred Kb) than the earlier fonts, but with the increased size of computer memory this is no longer a problem. Until recently, many of the common Unicode fonts did not contain the full set of Greek characters, including accents and other marks, which was needed for classical and ancient Greek. One had to install specially-designed Unicode Greek fonts. However, recent versions of Times New Roman and Arial do contain the full range. I prefer the Times New Roman set of characters - some of the Arial characters are difficult for beginners to distinguish.