RAISING THE STANDARD

One of the problems facing anyone writing software for a home computer is that of compatibility. A program written for the Spectrum will not run on any other home computer. The MSX standard is an attempt by a group of manufacturers to provide a general compatibility of hardware and software between machines.

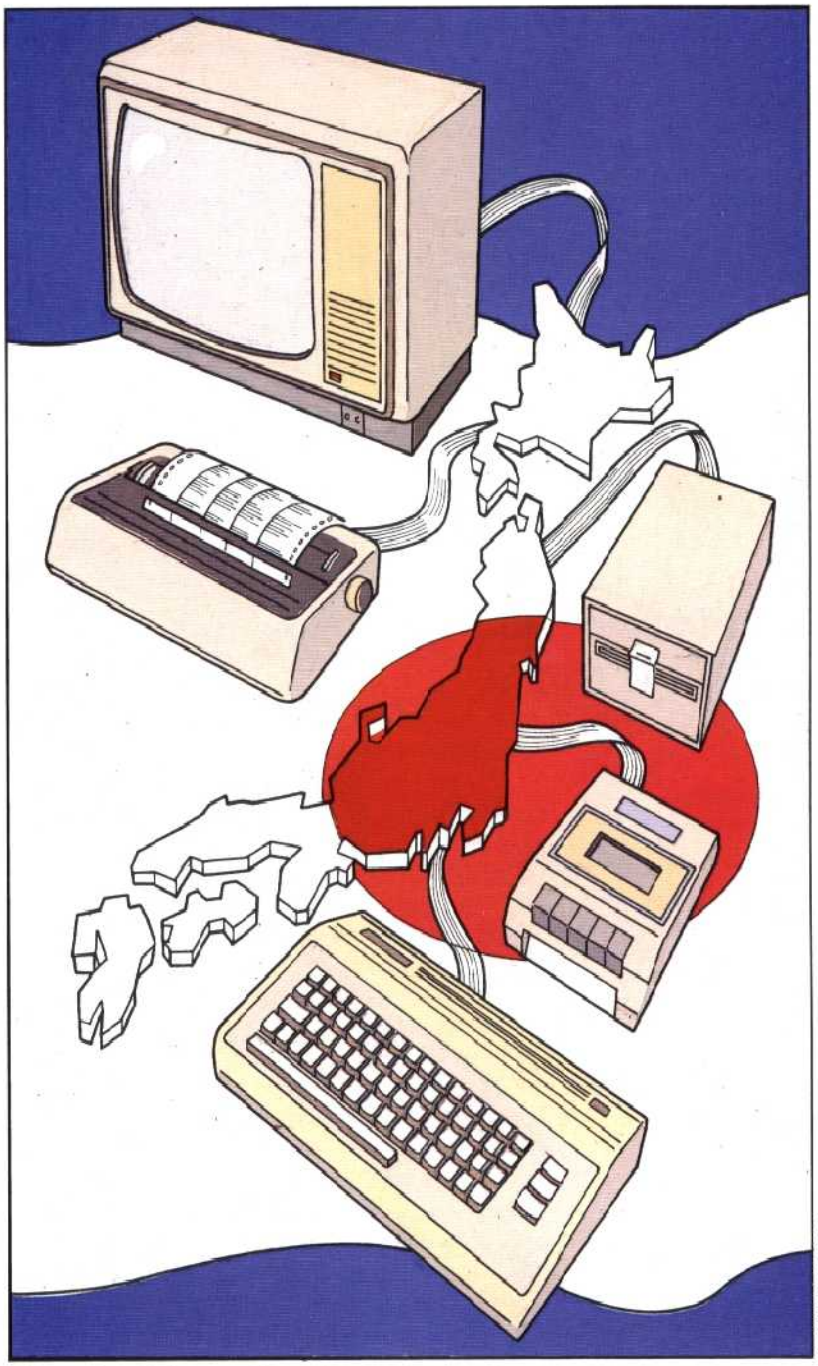
To understand why different home computers are so idiosyncratic in design, we need to be aware of how the microcomputer industry developed. The first microprocessors to make a big impact on the home computer market were Intel's 8080 and, arguably, Motorola's 6800. The instruction sets of these processors were fixed from the beginning. The compatibility problem arose from the processors' versatility. For example, sending a byte of data to an output port involved exactly the same instruction, whatever the computer, provided the same processor was used. But the output could have any one of hundreds or thousands of addresses. The early home micros were made by numerous garage and back yard manufacturers, so naturally they had no agreement between them on where the input or output ports should be located in the memory map. Manufacturer A might choose the parallel printer output port to be located at address 255, while manufacturer B might choose address 254.

This situation was bad enough, but with the advent of screen graphics controlled by special CRT controller chips, and sound effects controlled by dedicated sound chips, the situation became even more chaotic. Any program taking advantage of the special capabilities of any one computer could be guaranteed not to run on another computer without considerable rewriting.

Had there been one company in a powerful enough position to enforce a standard from the beginning, the situation might have been entirely different. But it wasn't like that. In the early days of home computers, there were numerous small manufacturers, each with a different house style and standard. Not only were the machines physically and electronically different from each other, even the programming languages supplied with them were incompatible with other machines. From the beginning, BASIC never enjoyed a standard. It was not, in the 1970s at least, taken very seriously by the professional computing community, who saw it as being strictly a beginner's language.

During the late 1970s and early 1980s, microcomputers developed at a tremendous pace. Pioneering designs such as the Apple started to incorporate refinements like sophisticated graphics and colour. To make these innovations usable, the manufacturers had to develop their own dialects of BASIC and so versions of the language proliferated.

The price of this proliferation is not so much a greater choice for the consumer, as frustration for owners, manufacturers and software writers alike. A proud SORD owner might be desperate to get his hands on Ju-Ju The Unobtainable or whatever the latest game craze is. If the program was written



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Road To Success
The MSX standard is Japan's route to the world's computer markets. If it is successful, Japan could dominate the computer market in the same way it has succeeded in the hi-fi and camera business