

DOMESTICATED PET

Jack Tramiel, Commodore's outgoing chief, has handed over the reins of power to Irving Gould. Tramiel leaves the company in good shape: in the UK alone it claims to have sold nearly half a million Vic-20s and 64s in the second half of last year. What makes its worldwide sales figures the envy of computer makers everywhere?

The secret of Commodore's success, in the UK as elsewhere, is a well-organised international manufacturing operation, represented in Britain by a modern factory, built with British government grant aid, in the former steel town of Corby. This factory is in the process of being expanded. At present it employs about 250 people and production averages 5,000 computers a day. Like all Commodore plants, it benefits from an assured supply of semiconductor components from the parent company's own factories. Commodore is a huge corporation and because of its volume production it can drive a hard bargain with outside suppliers: in some cases it pays only half what its competitors pay for vital chips.

Commodore's strong position owes much to the success of the CBM PET — Personal Electronic Transactor. Its design was essentially that of Chuck Peddle, who made three important decisions. The first was to base the machine on the 6502 processor; the second was to equip it with Microsoft BASIC; the third was to provide a full screen editor, which made the machine much easier to use than the single-boards that microelectronics enthusiasts had been playing with since the advent of the microprocessor in the mid-1970s. To this day, the supposedly 'next generation' IBM PC lacks a full screen editor as standard.

Commodore was in a strong position to build such a machine — it already owned MOS Technology, which had the rights to produce the 6502 microprocessor. This was invaluable: both the PET's competitors, the Apple II and the Tandy TRS-80, used the 6502 CPU, so Commodore was well-placed to monitor their production. The birth of the PET was nevertheless problematic. Jack Tramiel insisted that the PET's memory components also derive from MOS Technology, against Peddle's wishes. This led to a highly publicised row between the two men and Peddle's abrupt departure from the company.

The PET is now a venerable piece of machinery. Originally housed in a pressed steel box (in the way office furniture used to be built) it has now been re-skinned in plastic to bring its

appearance up to date. In its latest guise, with the potential to handle a 22 Megabyte disk store, it is called the 8000 series. Despite its age, it is still selling remarkably well to more conservative customers, who feel comfortable with it and see no reason to change their software for the new generation of office computers based on the 8088 CPU. Its suppliers even claim that — to their own amazement — it is still competitive with the IBM PC and ACT's Apricot.

This may be the result of a historical accident. Commodore, with Apple and Tandy, were the first companies to introduce an affordable and easily used personal computer. But once it had got its customers, Commodore hung on to them. From conservatism and a desire to contain development costs, it never bothered to overhaul the specification of its beginner's machine. Most of the original PET software will still run on today's machines, and the Microsoft BASIC Version 2.0 is still much as it was when Peddle adopted it.

Unfortunately for the more advanced hobbyist, Microsoft 2.0 was developed at a time when graphics and sound were luxuries on a cheap computer. Though Commodore's recent hobby computers are well-equipped with these features, the BASIC lacks the necessary commands, and requires extensive and laborious use of POKEs to address specific memory locations. This, however, is not a problem with pre-written cartridge software, of which Commodore offers a wide range.

It is at least partly due to its steady supply of components that Commodore managed to ride the storm that sank its competitors in the games market. Texas and Mattel withdrew altogether from home computers, and Atari has hardly looked shipshape in the last couple of years. Commodore, with its assured supply of cheap parts, was able to drive the prices of computer and cartridge software down below the price at which other manufacturers could compete, still making a profit. At one point, Commodore's cartridges were a third the price of those of its competitors. Modern, automated plant and access to cheap parts were the results of two decades' experience in manufacture. The factory gate price of a Commodore 64 is reportedly as little as £38.

Commodore has not worked itself into this dominating position by sheer luck. It has had a rough ride and has stood on the verge of bankruptcy at least twice. Jack Tramiel, who arrived in the United States after the Second World War as a teenage Polish refugee from Auschwitz, formed CBM — Commodore



Jack Tramiel

The driving force behind Commodore has been its president Jack Tramiel. His shrewd marketing ability will be missed now he has left the company full-time



Chuck Peddle

Chuck Peddle is the man behind the PET design and the 6502 chip inside it. He went on to form his own company to produce the Sirius 16-bit business machine