

BTM, ICT and ICL.

International Computers and Tabulators (ICT) was formed from the amalgamation in 1959 of the two UK punched-card equipment manufacturers, namely the British Tabulating Machine Co. (BTM) and Powers-Samas. BTM had been founded in 1904, and re-incorporated in 1907, to exploit Herman Hollerith's invention in America of punched-card tabulating machines. Powers-Samas had grown from the Accounting and Tabulating Machine Company, established in 1915 as the British agency for the American Powers Accounting Machines. From this grew the Powers-Samas company in 1929. Thus ICT, through its two ancestor companies, had many years of experience in the provision of office machinery based on electro-mechanical punched-card equipment. Up to the late-1950s, punched-card machinery formed the overwhelming data-processing resource for business and commerce. Indeed, sales of this type of electro-mechanical equipment in the UK were increasing until 1961.

BTM became the UK's leading supplier of punch card systems. In 1951 BTM decided that they needed a small electronic digital computer to improve the calculating power and flexibility offered by their tabulators. The company saw the pioneering work of Andrew Booth's APEC (All-purpose Electronic Computer) prototype and arranged to copy the design. The resulting machine, called HEC (Hollerith Electronic Computer), was further developed into marketable versions called HEC2M and HEC4. The HEC4, which was specifically designed for the business data-processing market, was re-named as the BTM1200 series. After BTM merged with Powers SAMAS in 1959 to form International Computers & Tabulators Ltd (ICT), it became the ICT 1200 series.

By the end of the 1950s the ICT 1200 had become the UK's best selling computer by volume and ICT seemed well-placed to lead the conversion of the UK's business community from electro-mechanical to electronic digital data processing.

In the early 1960s the increased penetration of American suppliers, particularly IBM, obliged the British manufacturers to rationalise. Between 1959 and 1968 there was a flurry of mergers and take-overs, during which ICT successively swallowed up the mainstream computer interests of GEC, EMI, Ferranti, English Electric, Leo Computers, Marconi Computers and Elliott-Automation. By 1968 this amalgam had been re-named International Computers Ltd. (ICL) and had become the UK's single major home-grown supplier of mainstream computers, with its principal offering centred on the ICL 1900 range. It is important to use the word 'mainstream' because ICL chose not to cover areas such as industrial process control and on-line real-time defence applications

ICL was gradually absorbed into Fujitsu during the period from 1981 to 2001. In June 2001 Fujitsu decided to dispense with the name ICL. At that time, ICL employed 19,200 people in Europe, the Middle East and Africa, over 10,000 of whom were in the UK. Whilst the passing of ICL could be said to mark the end of traditional British main-stream computer manufacture, the UK continues to have a distinctive home-grown presence in the real-time defence and aerospace applications of smaller computers. The current UK successor to Elliott-Automation, GEC, Marconi and Ferranti is in effect BAE Systems, a large company very much alive at the time of writing (2011) and still designing smaller computing systems.

The BTM, ICT and ICL computers featured on the *Our Computer Heritage* site are:

Group	Computers	Dates first working	Relative size	Initial target applications
T1	HEC2M HEC4/BTM1200	1955 1956	Small Small	General
T2	BTM/ICT 1300	1961	Small	Commercial data processing
T3	ICT/ICL 1900 series	1964	Small, medium & large	General and commercial data processing

Within the *Our Computer Heritage* time-frame of 1950 – 1965, the following early 1960s ICT computers have not been included in the current version of this website: 558FCC, 1500, 1600. ICT arranged to import over a hundred RCA model 301 computers during the period 1962-65. These were sold in the UK as the ICT 1500. It was classed as a small/medium computer in the price bracket £50K - £150K. Later, ICT arranged to import several RCA model 3301 computers, which were sold in the UK as the ICT 1600. It was classed as a medium-to-large computer in the price bracket £150K to £400K.

For further reading, see: *ICL – a business and technical history* by Martin Campbell-Kelly. Oxford University Press, 1989. ISBN: 0-19-853918-5.