Computer Technology Ltd. and the Modular One.

Introduction.
Computer Technology (later Information Technology) was started in 1965 by Iann Barron together with a group of computer engineers from Elliott Automation. The immediate reason for the company was the announcement of the Digital Equipment PDP11. Iann Barron, recounting the story many years later, believed that this was an ideal computer for Elliotts and said that he had 'secured the offer of the European licence'; however the management of Elliotts were not interested. While it might have been sensible for Elliotts as an established company to market the PDP11, this was not a practicable proposition for a startup and so, once he had left Elliott Automation, Iann Barron's aim was to create a more powerful computer which would address the same market as the PDP11 – this was to become known as the minicomputer market.

Financing was secured remarkably quickly, the two initial backers being Arnaud de Vitry, who had been the principal backer of Digital Equipment, and Robert Maxwell, who had a vision of computers as the future of publishing. Unfortunately, Maxwell proved a very uncertain source of funds, which created many difficulties for Computer Technology Ltd.

The concept of the Modular One was created around a number of ideas:
- The use of integrated circuits to build a computer. In particular the use of fast emitter coupled logic to gain a performance advantage. Modular One was one of the first computers to use integrated circuits and possibly the first to use emitter coupled logic integrated circuits.
- The use of a high performance core store with a 1 microsecond cycle time.
- A 16 bit word – at that time the fashion was for 12 or 24 bits, which was strongly preferred by the British establishment (for example, at Elliotts).
- A standardised interface to connect all the modules of the computer, enabling multiple processors, modular storage and flexible peripheral configurations.
- Multiprogramming, with relocatable program and data spaces and some degree of memory protection.
- Program and peripheral priority systems, with fast program switching.
- Multiprogramming operating system.

Work on the design was started in August 1965 in a terraced house in Luton. The first computer was delivered on schedule about three years later, to a company in Fenchurch Street, London. (The exact date and destination has not yet been ascertained). By this time Computer Technology Ltd. was operating from a Norman Foster designed factory in Hemel Hempstead. The Modular One met all Iann Barron's initial design objectives.

The main application areas were universities for research projects, the National Health Service, the MRC, CERN, instrumentation automation such as NMRs and a variety of advanced research applications, particularly multiple processors. More information on deliveries and dates is being investigated.

When he started the company, Iann Barron was helped by Tom Margerison (the founder of the New Scientist) who subsequently became Chairman of Computer Technology Ltd. Margerison changed the name to Information Technology. Basically the company never had the money to develop a successor to the Modular One, so the computers gradually became non competitive and the company declined. Iann Barron left the company in 1973. It was eventually bought by ACT (Apricot) in January 1990 which was then acquired by Mitsubishi.

It is believed that the last installation to be formally switched off was an ex NPL computer used on the NPL packet switching network and the Scrapbook project (see video links here http://www.npl.co.uk/mathematics-scientific-computing/history-of-computing/). In 1980 NPL disposed of its Modular One computers and this one was bought by Patrick Sugrue together with two teletypes and a high speed paper tape reader. It was used as a home computer up to 1982. The current plan is to restore this machine – see: http://redhawksys.com/index.htm

(To be continued. Technical details of the Modular One will be added in due course).