Ferranti Atlas 1 & 2 – Delivery List

Version 1: 14 November 2003

Six Atlas systems were built, three each of Atlas 1 and Atlas 2. The deliveries were as follows:

1. Manchester University Atlas 1

Address: Department of Electrical Engineering
Manchester University
Oxford Road
Manchester

This was the first Atlas system, developed by the Department of Electrical Engineering of the University and Ferranti Ltd, on the University site. It was officially inaugurated by Sir John Cockroft on the 7th December, 1962, and began operations the following year. At the start, only a primitive service was available, using a subset Supervisor without multiprogramming capability, together with Atlas Basic Language (ABL), Atlas Autocode and Extended Mercury Autocode (EMA). A full multiprogramming Supervisor was available in January 1964 and Algol 60 and FORTRAN compilers followed.

System time was shared between the University and Ferranti. The University Computing Services (UCS) provided a general computing service for its own departments and for other institutions by remote links, both electronic and physical. The Ferranti Computer Bureau, and later the ICT Computer Services Division, provided a typical bureau service to clients, ranging from running their programs to providing complete solutions including design and coding.

The system was finally closed down on the 30th September, 1971.

2. The National Institute for Research in Nuclear Science (NIRNS) Atlas 1

Address: NIRNS
Chilton
Didcot
Oxfordshire

This was the largest Atlas installation with 48k words of main memory and 32 magnetic tape decks. Installation and commissioning started in June 1964 and one-shift working began on 8th October 1964. The operation was later organised as a separate establishment – the **Science Research Council Atlas Computing Laboratory** – and provided a general computing service to all UK universities.

The system was shut down (and replaced by an ICT1906A) in March 1974.

3. The London University Atlas 1

Address: London University Computing Centre
Gordon Square
London W1

This system was purchased jointly by a consortium of London University and British Petroleum and was installed in 1964. The university provided a general computing service and time was

made available to BP for scientific and technical R&D. London co-operated with Cambridge University on the development of the CPL language – see 4 below.

4. The Cambridge University Atlas 2 (TITAN)

Address: The Cambridge University Computing Laboratory
Cambridge

This was the prototype system for Atlas 2 developed by a collaboration between the University and Ferranti Ltd to produce a reduced-cost version of Atlas 1. It did not have a paging/one-level-store system, and a new operating system (supervisor) had to be developed for it. The Ferranti hardware was delivered in February 1962 and the system was first operational in the summer of 1963. The Titan supervisor was later developed into the Cambridge Multiple Access System, made available from March 1967, which allowed the system to be "thrown open to all comers". Titan provided a 24/7 computing service for the University until it was replaced by an IBM 360/165 in 1972.

Cambridge developed with London a programming language called CPL (Combined Programming Language (or, in some documents Cambridge Programming Language)). In order to write the CPL compiler a cut-down version allowing considerable data flexibility was produced. This was called Basic CPL or BCPL and became a direct ancestor of the C and C++ languages.

5. The Aldermaston Atlas 2

Address: AWRE
Aldermaston
Reading
Berkshire

Hardware was delivered to the Atomic Weapons Research Establishment at Aldermaston in 1963, and was used for research.

6. The Cambridge CAD Centre Atlas 2

Address: The CAD Centre
Madingley Road
Cambridge

This machine was in some documents known as The Stock Atlas (see references), since unlike the other machines it was not built for a specific customer. It operated for a time in Ferranti's factory at West Gorton in Manchester. It was sold to the Ministry of Technology in 1966 for what was initially called the Atlas Centre but became the Computer Aided Design Centre. There it worked with a satellite PDP7 and PDP9 to provide a CAD service. It was used as part of the STAR network of powerful technical computers – see references.

References

The following references in module **X5** are particularly relevant to this section:

12, 13, 14, 20, 21, 22, 23, 24, 25, 26, 28, 38, 39, 40, 42, 46, 48, 50, 54, 56, 57, 58.