

X5. Mercury References.

D3 References

Ferranti Documents.

This is a full list of documents held by Museum of Science and Industry, Manchester (MSIM) together with some held elsewhere. According to an ICL Classified Index of Literature..., Ferranti 'CS' documents describe in detail the techniques involved in applying computers to particular classes of work including programming manuals and exercises; 'DC' documents are descriptions of computers, equipment and systems and 'R' series documents are reprints of published articles. These are in alphanumeric order of Ferranti list number.

References to MSIM documents should be prefixed with 'F2 Series 6 Box number'. The figures (eg) 18/9 means 'box number 18 document 9'. MSIM also has reprints of some of the published papers as noted.

CS 85 (Supplement to CS 70), April 1956; *Additions to the Mercury Input Routine*; MSIM reference 18/7.

CS 90, June 1956; *Instruction Code and Notation*; MSIM reference 18/8 (mostly elsewhere).

CS 93, June 1956; *Library Index*; MSIM reference 18/9. Interesting.

CS 94, June 1956; *The Programme of the Library Subroutine Arc Tangent*; MSIM reference 18/10.

CS 105A, July 1960; *Computer Reading List*; MSIM reference 17/?

CS 113, October 1956; *Subject Index to Ferranti Computer Literature*; MSIM reference 17/17.

CS 120A, August 1957; *Ferranti Mercury Computer - Questions and Answers*; MSIM reference 4/5. Contains summary of facilities and requirements, including weights, sizes, power and cooling requirements as well as technical details etc. etc..

CS 120B, March 1958; *Questions and Answers*; MSIM reference 4/6.

CS 124; *Tape Code*; CB

CS 140, April 1957; *Additional Facility in the Mercury Input Routine*; MSIM reference 4/7.

CS 154, June 1957; *A Comparison Between Computers of the Besk Series and Mercury*; MSIM reference 4/8. The Besk Series were a Swedish design.

CS 158, July 1957; *Programming Manual issue 1*; MSIM reference 18/12. Has an early version of instruction code - see DC 30A for a more up to date one and also CS 327.

CS 158 addendum No. 1, October 1958; *Mercury Programming Manual*; MSIM reference 4/9.

CS 161; *Programming Examples*; CB.

CS 1??, October 1957; *Errata No. 1 to CS 161: Mercury Programming Examples*; MSIM reference 18/13.

CS 164, August 1957; *The Main and Auxiliary Equipment of a Complete Installation*; MSIM reference 6/20.

CS 174, October 1957; *Complete Programme Fourier Synthesis*; MSIM reference 6/27.

CS 176, October 1957; *Performance Tests*; MSIM reference 4/10. Interesting.

CS 188A, September 1960; *Internal Function Codes*; MSIM reference 4/11.

CS 192, March 1958; *Operating Instructions*; MSIM reference 4/12.

202A; *Quickie Specifications*; CB.

CS 205, July 1958; *Ferranti Mercury Computer - Recommended Terminology*; MSIM reference 4/13: useful.

CS214, October 1958; *Mercury Autocode (first issue)*; MSIM reference 4/14.

CS214 Supplement No.1, December 1958; *Mercury Autocode Matrix and Vector Operations*; MSIM reference 4/15.

CS 218B, February 1962; *Programmes Available in the Interchange Scheme*; MSIM reference 4/16. Very interesting.

CS 224, November 1958; *Examples of Complete Problems for Programming*; MSIM reference 4/17.

CS 225, November 1958; *Programmers Handbook*; MSIM reference 4/18. Includes additional codes for card punch, line printer, magnetic tape etc, descriptions of quickies etc.

CS 225A; CB.

CS 225 addendum 1, *Mercury Programmers Handbook*; MSIM reference 17/29.

CS 242, May 1959; *The Manchester Mercury Autocode System*; MSIM reference 18/14.

CS 242A, June 1961; RA Brooker, B Richards, E Berg; *Mercury Autocode Manual*. MSIM reference 4/21.

CS 246; *Multiple Input/Output Facilities*; CB.

CS 251, January 1960; *Punched Card Input/ Output Line Printer*; MSIM reference 4/20.

CS 270, July 1960; *Autocode Examples*; MSIM reference 4/22.

CS 296; *Two Sample Complete Programmes*; CB

CS 327, 1962; *Summarised Programming Information*; MSIM reference 4/23. Coding sheet contains much useful data including 9x codes which appear to differ from those of earlier documents.

DC 22, April 1956; *An Introduction to the Ferranti Mercury Computer*; MSIM reference 26/16 (glossy brochure).

DC 22A, July 1957; *An Introduction to the Ferranti Mercury Computer*. MSIM reference 26/17 (glossy brochure).

DC 30, June 1957; *Description of the Ferranti Mercury Computer* (booklet); MSIM reference 13/29. Includes instruction codes (see below for later version, and also CS 327).

DC 30A, August 1958; *A Description of the Ferranti Mercury Computer with Ancillary Equipment* (booklet); MSIM reference 26/32 includes instruction codes. See also CS 327.

R1001, July 1956; *Library Specification Provisional Print 10-bit Integer*; MSIM reference 4/26.

R1100, July 1956; *Mercury Library Specification, provisional 10-Bit Integer Read Routine*; MSIM reference 18/4.

R1101, July 1956; *Mercury Library Routine provisional Fixed Point Number Read*; MSIM reference 18/3.

R1102, July 1956; *Mercury Library Specification, provisional Standard Form Floating Point Number Read*; MSIM reference 18/2.

R1200, June 1956; *Mercury Library Specification, Reciprocal*; MSIM reference 18/5.

R1201, June 1956; *Mercury Library Specification, provisional Reciprocal Square Root*; MSIM reference 18/6.

Mercury Computer Basic Programming for Engineers, Vol 8. MSIM reference 41/12.
[Vols 1 - 7 could be useful, containing some basic unit diagrams and an accumulator diagram. Anyone got any?](#)

Mercury Library Specifications; (discontinued October 1963) CB.

Mercury Annotated Input Routines; CB.

Published books and papers.

RA Brooker; *The Autocode Programme Developed for the Manchester University Computers*; Computer Journal 1 1958-59 pp 15 - 21. (Ferranti R18)

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RA Brooker; *Further Autocode Facilities for the Manchester (Mercury) Computer*; *ibid* pp 124 - 127. Also MSIM reference F2 Series 6 Box 4 document 25.

RA Brooker; *Some Techniques for dealing with 2-level Storage*; *Computer Journal* 2 1959-60 pp 189 - 194 (Mainly relating to matrix programming).

RA Brooker, D Morris; *A Description of Mercury Autocode in Terms of a Phrase Structured Language*; *Annual Review of Automatic Programming*, Vol 2. Also MSIM reference F2 Series 6 Box 4 document 24. (Ferranti R47)

RA Buckingham; *Organisation of a University Computer Centre*; *Computer Journal* 3 1960-61 pp 131 - 135 (University of London Centre; interesting information relating to users).

DBG Edwards; *Design and Construction of an experimental High Speed Digital Computer*; PhD Thesis, University of Manchester, 1954; John Rylands University of Manchester Library. (MEG; see Lonsdale and Warburton below for differences in Mercury)

JA Fotheringham, M deV Roberts; *An Input Routine for the Ferranti Mercury Computer*; *Computer Journal* Vol 1 pp 128 - 130. Also MSIM reference F2 Series 6 Box 4 document 25. (Ferranti R18).

J Gibson; *Shell Roof Programmes for the Mercury Computer*; *Civil Engineering*, Sept - Nov 1961. R54;.

T Kilburn, DBG Edwards, GE Thomas; *The Manchester University Mark II Digital Computer*; *Proc IEE* Vol 103 Suppl. B pp 247 - 268 (MEG; see Lonsdale and Warburton for differences in Mercury).

K Lonsdale, ET Warburton; *Mercury; A High Speed Digital Computer*; *Proc IEE* Vol 103 Suppl. 2 pp 174 - 183.

Lavington, SH; *History of Manchester Computers*; NCC Publications, 1975.

Lavington, SH; *Early British Computers*; Manchester University Press, 1980.

GE Thomas; *The Design of an Electronic Digital Computer*; PhD Thesis, University of Manchester, 1954; John Rylands University of Manchester Library. (Also MEG. The main thesis is just over 100 pages and appears very clear. The appendices are another 100+ pages and are a mine of useful information. Includes a full diagram of the computational unit including the B-registers. Also details of the components used including valves, semiconductor diodes with their characteristics, resistors, capacitors, and delay lines (including winding details).)

A Brooker; *The Autocode Programmes Developed for the Manchester University Computers*. *Computer Journal* 1 1958 - 59; pp 15 - 21.

A Brooker; *Further Autocode Facilities for the Manchester University Computer*. *ibid* pp 124 - 127.

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A Brooker; *Some Techniques for Dealing with 2-level Storage*. Ibid 2 1959 - 60 pp 189 - 194.

RA Buckingham; *Organisation of a University Computer Centre*. ibid, 3 1960- 61.