SCIENCE AND ENGINEERING RESEARCH COUNCIL
RUTHERFORD APPLETON LABORATORY

COMPUTING DIVISION

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                                              issued by
                                              R W Witty
ICL URC Meeting on Specification   6th July 1983

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                Ext Links/ICL gen

INTRODUCTION

This meeting brought together the leading UK academics in specification
(all SERC funded) with various members of ICL plus 2 special guests from
the USA (Reynolds and Morris).

The ICL organiser had put absolutely no work into organising the meeting
so that we all turned up without so much as an agenda.

All of the formal sessions therefore were a rambling, academic discussion
about various obtuse points relating to various people's specification
methods.

Those members of ICL who were up to speed on specification enjoyed an
interesting day with Hoare, Jones etc. The rest probably went away
thinking specification is impossible for at least 10 years! They learnt
nothing because nothing had been prepared in advance. (B Sufrin was
asked to step up to the viewgraph and specify an airline seat reservation
system, including error handling, with zero notice!).

The informal contacts during lunch, coffee etc were more productive.

HOS

ICL have the HOS system for evaluation. RWW will try to liaise with
Clive Blatchford to allow academics to evaluate it too.

SPECIFICATION WORKSHOP
HEDSOR HOUSE, HEDSOR PARK, TAPLOW, NR MAIDENHEAD, BERKS
FIRDAY, 1 JULY 1983

NAME	ADDRESS	AREAS OF INTEREST
PROF A R HOARE FRS	OXFORD UNIVERSITY 8-11 KEBLE ROAD OXFORD OX1 3QD	Chairman
PROF C B JONES	DEPT OF COMPUTER SCIENCE UNIVERSITY OF MANCHESTER OXFORD ROAD MANCHESTER M13 9PL	Chairman
DR J R ABRIAL	47 RUE HALLE PARIS 75014	
DR H BARRINGER	DEPT OF COMPUTER SCIENCE UNIVERSITY OF MANCHESTER OXFORD ROAD MANCHESTER M13 9PL	Specification of parallel/distributed systems (hardware and software). General specification techniques.
PROF R BURSTALL	DEPT OF COMPUTER SCIENCE UNIVERSITY OF EDINBURGH THE KINGS BUILDINGS MAYFIELD ROAD EDINBURGH	Specification languages, algebraic methods.

DL3ABO

MR D COLEMAN	DEPT OF COMPUTATION UMIST PO BOX 88 MANCHESTER M60 1QD	Software tools for program verification. Software prototyping. Program verification and programming in imperative languages.
DR I COTTAM	DEPT OF COMPUTER SCIENCE UNIVERSITY OF MANCHESTER OXFORD ROAD MANCHESTER M13 9PL	Modular specification of temporal properties of concurrent programs, proof rules for recessive network expansion and network expansion in general.
DR J CUNNINGHAM	DEPT OF COMPUTING IMPERIAL COLLEGE 180 QUEENS GATE LONDON SW7	Specification and verification. Bridge between theoretical and practical.
DR M HENNESSY	DEPT OF COMPUTER SCIENCE UNIVERSITY OF EDINBURGH THE KINGS BUILDINGS MAYFIELD ROAD EDINBURGH	Specification of concurrent systems. Protocol specification.
DR R MILNER	UNIVERSITY OF EDINBURGH DEPT OF COMPUTER SCIENCE THE KINGS BUILDINGS MAYFIELD ROAD EDINBURGH	Machine assisted verification. Modelling of distributed systems. Description versus specification. Communication.

DL3ABO

MR R MITCHELL   HATFILED POLYTECHNIC   Teaching aspects of specification.
                       HATFIELD   Suggest it would be useful for
                       HANTS   non-academics to have introductory
                                                         discussion on different approaches to
                                                         specifications/some contextual
                                                         info/updated picture for those not
                                                         working in this at present.

PROF L MORRIS   COMPUTER & INFORMATION SCIENCE   Specifications by informal mathematics.
                       SYRACUSE UNIVERSITY
                       313 LINK HALL
                       SYRACUSE
                       NEW YORK 13210
                       USA

PROF J REYNOLDS   COMPUTER & INFORMATION SCIENCE   Specification of programs, algol-like
                       SYRACUSE UNIVERSITY   languages, proof of such programs, and
                       313 LINK HALL   sematics.
                       SYRACUSE
                       NEW YORK 13210
                       USA

PROF W P DE ROEVER   DEPT OF COMPUTER SCIENCE   Modular specification of concurrence
                       THE UNIVERSITY OF MANCHESTER   programs. Modular specification of
                       MANCHESTER   temporal properties of programs.
                       M13 9PL   Specifying real time processes.
                                                         Proof rules for processes. Proof rules
                                                         for modular specification of concurrent
                                                         programs.

DL3ABO

MR C RUNCIMAN	SOFTWARE TECHNOLOGY RESEARCH DEPT OF COMPUTER SCIENCE UNIVERSITY OF YORK HESLINGTON YORK YO1 5DD	Interpretation of software tools/ re-writing systems/algebraic specifications. Relationship between spcification and logic programming.
DR S SCHUMAN	OXFORD UNIVERSITY 8-11 KEBLE ROAD OXFORD OX1 3QD	Concurrency and distributed systems.
PROF W D SHEPHERD	UNIVERSITY STRATHCLYDE COMPUTER SCIENCE DEPARTMENT LIVINGSTONE TOWER RICHMOND STREET GLASGOW G1 1XW	Standard verifier. Program verification. Protocol specification and verification.
MR D SIMPSON	DEPT OF COMPUTER SCIENCE SHEFFIELD CITY POLYTECHNIC POND STREET SHEFFIELD	BETRI NETS and teaching. System design rather than program design.
DR B SUFRIN	OXFORD UNIVERSITY 8-11 KEBLE ROAD OXFORD OX1 3QD	Applications of se theoretic methods to sizeable examples.

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DR D R WITTY

SCIENCE AND ENGINEERING RESEARCH
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COMPUTING DIVISION
ATLAS CENTRE
CHILTON
DIDCOT
OXON   OX11 OQX

Software engineering.

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NAME	ADDRESS	AREAS OF INTEREST
C BLATCHFORD	ICL LOVELACE ROAD BRACKNELL BERKS RG12 4SN TEL. (0344) 24842	Advanced development tools for networked systems, emphasising the need for a dynamic resource directory of computer processing.
A BRIGHTWELL	ICL WESTFIELDS WEST AVENUE KIDSGROVE STOKE-ON-TRENT ST7 1TL TEL. (0782) 29681	Structure of specification techniques and applying specification techniques, including proofs.
A P G BROWN	ICL LOVELACE ROAD BRACKNELL BERKS RG12 4SN TEL. (0344) 24842	Protocol specification. Formal language specification. Software engineering.

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J C P BURLEIGH   ICL   Software methodology.

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J C P BURLEIGH       ICL                             Software methodology.
                     LOVELACE ROAD                   High resilient systems.
                     BRACKNELL
                     BERKS        RG12 4SN

                     TEL.  (0344) 24842


W B COUSINS          ICL                             Generic architecture.
                     REGENT HOUSE
                     87 LONDON STREET
                     READING
                     BERKS        RG1 4QA

                     TEL.  (0734) 583696


G FELTON             ICL
                     LOVELACE ROAD
                     BRACKNELL
                     BERKS        RG12 4SN

                     TEL.  (0344) 24842


C HAYNES             ICL                             Distributed systems for 1986 onwards.
                     RG12 4SN
                     LOVELACE ROAD
                     BRACKNELL
                     BERKS        RG12 4SN

                     TEL.  (0344) 24842




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N HOLT	ICL WENLOCK WAY WEST GORTON MANCHESTER M12 5DR TEL. 061-223 1301	Methodology for VLSI design.
A JOHNSON	ICL LOVELACE ROAD BRACKNELL BERKS RG12 4SN TEL. (0344) 24842	Applicabaility of formal specification methods within ASD. Tools to support formal specification. Introduction of formal specification into a SW development product - training etc. Cost-effectiveness. Review of current
J JONES	ICL WENLOCK WAY WEST GORTON MANCHESTER M12 5DR TEL. 061-223 1301	Application technique to advanced hardware design.
M KELLEY	ICL 118-128 LONDON STREET READING BERKS RG1 4SU TEL. (0734) 583696	Design methodology, especially for application package production.

D LAZARUS

ICL
118-128 LONDON STREET
READING
BERKS   RG1 4SU

TEL. (0734) 583696

Organiser

M MORRON

ICL
LOVELACE ROAD
BRACKNELL
BERKS   RG12 4SN

TEL. (0344) 24842

Chairing software technology.
What training is required in ICL on
formal specification techniques?
Are pilot projects the best method of
implementing formal specification
techniques? If so, what areas/types is

DR V PASQUALI

ICL
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Chairman of UTP.

R POOLE

ICL
WESTFIELDS
WEST AVENUE
KIDSGROVE
STOKE-ON-TRENT   ST7 1TL

TEL. (0782) 29681

Application of formal specification
techniques.

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G PRATTEN	ICL WESTFIELDS WEST AVENUE KIDSGROVE STOKE-ON-TRENT · ST7 1TL TEL. (0782) 29681	Interfacing novel architecture into distributed architecture. Middle management education . Technology and technology transfer. Prototypong versus specification languages.
R SNOWDON	ICL WESTFIELDS WEST AVENUE KIDSGROVE STOKE-ON-TRENT ST7 1TL TEL. (0782) 29681	Software technology, specification in systems software. Aplicability of specification technology in parallel systems. Relationship between specification language and fifth generation languages.
A SOMMERVILLE	ICL LOVELACE ROAD BRACKNELL BERKS RG12 4SN TEL. (0344) 24842	Application architecture and protocol specification.
R STOKES	ICL LOVELACE ROAD BRACKNELL BERKS RG12 4SN TEL. (0344) 24842	Methods of Oxford University Research Group i.e. 'Z' notation. What does it take to get formal methods established? - to use in SW production.

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K TURNER

ICL
WESTFIELDS
WEST AVENUE
KIDSGROVE
STOKE-ON-TRENT
ST7 1TL

TEL. (0782) 29681

Specification of communications services
and protocols.
Practicability of proof techniques for
various specification languages.
Concepts of time and fairness in
specification languages.

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