# IN CONFIDENCE

SCIENCE AND ENGINEERING RESEARCH COUNCIL RUTHERFORD APPLETON LABORATORY

INFORMATICS DIVISION

SOFTWARE ENGINEERING GROUP NOTE 14

ACARD WG on SE

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R W Witty EL/ACARD

(see next page)

#### 1. INTRODUCTION

RWW has been invited to sit on a new ACARD Working Group concerned with Software Engineering. Formally RWW is an assessor representing Alvey.

The Working Group is chaired by John Copling, the Design Director of Rolls Royce who has served on a previous ACARD WG concerned with an advanced manufacturing study.

#### 2. MEETING 7/1/85

Those attending:

John Copling (Chairman) from Rolls Royce

John Walley from BAe

Colin Whitby-Strevens from INMOS (who now seems to be on their marketing side!)

Peter Ost from MoD, either PE or REME (he was representing some Brigadier and was a pain in the !)

Mrs Jo Connell from F International who said almost nothing all morning

Sir Robin Nicholson, the Cabinet Office Chief Scientist

Geoff Holmes of SDL

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Alan Tolan (ex Chemist) )
Mike Kelly (seconded from SIC) ) ACARD Secretariat
Monica Darnbrough )
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### 3. ACARD

Nicholson gave a brief introduction.

ACARD is currently chaired by Sir Henry Chilver, the VC of Cranfield. It reports directly to the PM. ACARD consists of captains of industry, academics, and "one economist". Its reports are often confidential as they go direct to the PM and cabinet briefings.

Working Groups produce reports which also go direct to the PM, but these are normally published. ACARD WGs have been on

IT and Microelectronics Biotechnology Control Systems Higher Education and Industry Advanced Manufacturing Technology Working Groups make recommendations aimed primarily at the Government but can also be aimed more broadly eg industry, UGC, SERC, CBI etc.

The ACARD WG on SE arose out of the Advanced Manufacturing Technology study because these people saw software becoming an increasing fraction of a total system and software development becoming a problem for an increasing range of manufacturing industry both as product component and, via CAD, as a process aid.

The ACARD WG on SE will meet monthly for the next six months.

## 4. TERMS OF REFERENCE

The Chairman opened with the remark that he knew nothing about computers (!) and proceeded to lead a discussion on the terms of reference which demonstrated this. He only seemed to recognise the existence of large systems companies such as Aerospace. Given the bias of the WG towards MoD/bespoke systems the discussion was very lopsided.

As the Chairman and the Secretariat had no idea of what the WG was supposed to be doing there was a long shambles of a discussion which occupied the entire meeting and failed to reach a useful conclusion.

The Chairman seemed to think the WG was going to produce detailed technical recommendations as to the exact tools and techniques UK industry (ie his company!) should employ. Geoff Holmes and I managed to head him off but as he did not understand the technical points being made he did not really understand what Geoff and I were saying.

Subjects to be considered at the next meeting will be

Education and Training
Quality Assurance and Certification
Corporate Integration of SE Techniques
Impact of SE on Managers and Applications Engineers
Public Purchasing/Procurement Policy
'Post Alvey'.

The Chairman wanted the WG to visit BAe and RR 'so we would understand the problem'(!)

Nicholson asked us to consider what work we would like to commission.

Members were asked to do some homework on the above set of subjects and send in some written material before the February meeting.

#### 5. CONCLUSION

A fairly chaotic shambles because the Chairman did not know what problem the WG is supposed to address.

#### ACARD WORKING GROUP ON SOFTWARE ENGINEERING

#### DRAFT TERMS OF REFERENCE

The suggested terms of reference are:

- i. to examine the nature of existing and prospective management and organisational practices in software development, in the light of the changes brought about by software engineering.
- ii. to identify measures to assist in the transition from craft to tech discipline in software development, as a result of these changes.
- iii. to examine current and prospective techniques and aids in the specification, design, integration and testing of software and in the assessment of quality and correctness of the finished product.
- to consider the extent of current application of such techniques and aids, and their likely future development, both within the UK and abroad.
  - v. to identify measures to assist in the understanding and use of software engineering industry and through education and training.

erry Sir A

vi. to make recommendations.

Cabinet Office
21 December 1984

is a frey scene?

Mr. Oil

enter A

## ADVISORY COUNCIL FOR APPLIED RESEARCH AND DEVELOPMENT

# WORKING GROUP ON SOFTWARE ENGINEERING

# MEMBERS'S ADDRESSES AND TELEPHONE NUMBERS

### (DECEMBER 1984)

(The Secretariat would be pleased to receive any corrections which may be necessary).

Chairman

Mr J Coplin

0332 42424

Director of Design Rolls Royce Ltd

PO Box 31

Derby DE2 8BT

Members

Miss S Bond

GTN 2061 2997

RSRE

N 126

St Andrews Road

Malvern

Worcs WR14 3PS

R T Clark Esq

01 726 1011

Manager

Electronic Banking

Money Transmission & Systems Dept

Domestic Banking

4th Floor, 41 Lothbury

London EC2P 2BQ

Mrs J Connell

044 2775051

General Manager F International Chesham House Church Lane

Berkhamsted Herts

Prof T Hoare

0865 54141

Programming Research Group

8/11 Keble Road

Oxford OX1 3QD

G W Holmes Esq

02514 22161

Systems Design Limited

Systems House

105 Fleet Road

Fleet, Hants

	,	
	J Leighfield Esq ISTEL Ltd PO Box 5 Redditch Worcs BN8 9HB	0527 64274
	J Walley Esq Technical Director British Aerospace plc Woodford Assembly Plant Chester Road Woodford Near Stockport SK7 1QR	061 439 5050 x3419
	Dr Colin Whitby-Strevens INMOS Ltd Whitefriars Lewins Mead BRISTOL BS1 2NP	0272 290861
	Dr R B Nicholson FRS Chief Scientific Adviser Cabinet Office 70 Whitehall London SWIA 2AS	01 233 7089
	Mr M B Kelly Cabinet Office 70 Whitehall London SWIA 2AS	01 233 7758
	Dr R W Witty Informatics Division Atlas Centre Rutherford Appleton Laboratory Chilton, Didcot Oxford OX11 OQX	0235 21900 x6218
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SECRETARIAT Dr A Tolan
Dr M A Darnbrough
Cabinet Office
70 Whitehall

ASSESSORS

London SW1A 2AS

01 233 8366 01 233 6139