

IFIP

TC6 Meeting

Porto Alegre
May 31 - June 1, 1985

Meeting Documents

BOYANOV Kiril
Inst. Math. with Com. Center
U1, Akad. G. Bonchev 8
1113 Sofia
BULGARIA

The Meeting Documents (MD), are to be considered as an integral part of the minutes of the meeting.

TC 6 MEETING - PORTO ALEGRE - MAY 31-JUNE 1, 1985

PROVISIONAL AGENDA

ITEM	SUBJECT	PRESENTED BY
1	Attendance and Membership	TC 6 Chairman
2	Final Agenda	TC 6 Chairman
3	Approval of the Minutes of Madras Meeting	TC 6 Chairman
4	General Assembly and Council	TC 6 Chairman
5	TC 6 Review Committee	TC 6 Chairman
6	Relations with APC (Activity Planning Committee)	TC 6 Chairman
7	ICCC 84	R. UHLIG
8	Data Comm. in the ISDN Era 85	D. BIRAN
9	Telematica 85 (May 85)	L. TAROUCO
10		
11	WG 6.1 Activities	C. SUNSHINE
12	WG 6.4 Activities	P.C. RAVASIO
13	WG 6.5 Activities	R. UHLIG
14	TC 6 Mailing List	TC 6 Chairman
15		
16	Protocol Specification Testing and Verification 85	C. SUNSHINE
17	Computer Message Systems (Sept. 85)	R. UHLIG
18	COMNET 85 (Oct. 85)	T. SZENTIVANYI
19	Data Communication (March 86)	K. KOEN
20	Local Area Network (Spring-Summer 86)	P.C. RAVASIO
21	IFIP 86, Dublin, 1-5 Sept. 86	TC 6 Chairman
22	IBERICOM 87, Lisboa, 18-22 May 87	A. CERVEIRA
23		
24		
25	Other TC 6 Activities in 1986-1987	Each Delegate
26	Future TC 6 Meetings	TC 6 Chairman
27	6-years plan	TC 6 Chairman
28	TC 6, ICID and UNESCO	TC 6 Chairman
29	North Holland Publications	TC 6 Chairman
30	IFIP Bulletin, IFIP Newsletter	TC 6 Chairman
31	TC 6 News in Computer Networks, Compact Journal,...	TC 6 Chairman
32	IFIP State of the Art Report	TC 6 Chairman
33	Finance	TC 6 Chairman
34	Joint Sponsorship	TC 6 Chairman
35	Next TC 6 Chairman	TC 6 Chairman
36	Questions on national activities (*)	
37	Miscellaneous	

- (*) Each national representative is requested to bring a typed summary of his national activities. These documents will be reproduced and distributed to all attendants. A period of one half hour will allow any attendant to raise questions about the circulated documents.

TC 6 SIX YEARS PLAN

DATE : April 1985 1/2

	ACTIVITY	TITLE AND DESCRIPTION	ORGAN. BY	TIME	PLACE	STATUS	APPROVAL
1	Symposium	Data Communications in the ISDN Era	TC 6	4-5 March 85	Tel-Aviv		
2	Meeting	WG 6.1/B - Satellite Communication	WG 6.1/B	6 March 1985	Tel-Aviv	O.K.	
3	Symposium	Telematica 85	UFRGS TC 6	27-30 May 1985	Porto Alegre Brazil	O.K.	
4	Meeting	TC 6 Spring Meeting	TC 6	31 May-June 1 1985	Porto Alegre Brazil	O.K.	
5	Working Conf.	Protocol Specification, Testing and Verification	WG 6.1	10-13 June 85	Toulouse France	O.K.	
6	Conference	Computer Message Systems	WG 6.5 EMA	4-6 September 1985	Washington U.S.A.	O.K.	
7	Conference	COMNET 85		1-4 October 1985	Budapest Hungary	O.K.	Paris 83
8	Meeting	TC 6 Meeting	TC 6	29-30 Sept ? 5-6 October ? 1985	Budapest Hungary	O.K.	
9	Conference	Data Communication	CSSA	24-24 March 1986	Johannesburg South Africa	O.K.	Beijing 83
10	Meeting	TC 6 Meeting	TC 6	27-28 March 1986	Cape Town South Africa	Invitation received	
11	Workshop	Local Area Network	WG 6.4	Spring Summer 1986	Toulouse ? Zurich ?	under study	
12	Congress	IFIP 86	IFIP	1-5 September 1986	Dublin Ireland	O.K.	
13	Meeting	TC 6 Meeting	TC 6	September 86	Dublin ? Munich	under study	
14	Conference	ICCC 86	ICCC	15-19 Sept. 1986	Munich Germany		

TC 6 SIX YEARS PLAN

DATE : April 1985

2/2

	ACTIVITY	TITLE AND DESCRIPTION	ORGAN. BY	TIME	PLACE	STATUS	APPROVAL
15	Workshop	Local Area Networks	CSI	December 86 January 87	Goa India	under study	requeste
16	Conference	AFRICOM 87		April 1987	Egypt Senegal Côte d'Ivoire	under study	
17	Conference	IBERICOM 87	API TC 6	18-22 May 1987	Lisboa Portugal	O.K.	
18	Meeting	TC 6 Meeting	TC 6	May 1987	Sintra Portugal	under study	
19	Symposium	Network Information Processing System		1988	Sofia Bulgaria	under study	

OFFICIAL SEQUENCE AND ABBREVIATION SYMBOLS FOR MEMBER SOCIETIES AS USED IN IFIP PUBLICATIONS

Algeria	DZ	German Democratic Republic	GDR	Norway	N
Argentina	AR	Germany, Fed. Rep. of	D	Poland	PL
Australia	AUS	Greece	GR	Portugal	P
Austria	A	Hungary	H	South Africa	ZA
Belgium	B	India	IND	Spain	E
Brazil	BR	Iraq	IQ	Sweden	S
Bulgaria	BG	Ireland	IRL	Switzerland	CH
Canada	CDN	Israel	IL	Syria	SYR
China	PRC	Italy	I	Tunisia	TN
Cuba	C	Japan	J	United Kingdom	GB
Czechoslovakia	CS	Korea, Rep. of	K	U.S.A.	USA
Denmark	DK	Morocco	MA	U.S.S.R.	SU
Egypt	ET	Netherlands	NL	Yugoslavia	YU
Finland	SF	New Zealand	NZ	SEARCC	SEARCC
France	F	Nigeria	WRN		

IFIP TC 6 MEMBERSHIP (1985/4)

MAY 1985

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INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

The President

November 8, 1984
Our Ref. No. 590238

Mr. H. W. Le Roux
Ambit Buisiness Services (Pty) Ltd.
P. O. Box 837
VZ Centre Sandton
Gallo Manor 2052
Rep. of South Africa

Dear Mr. Le Roux:

This is to confirm your appointment as the Trustee (1984 - 1987), the Cognizant Officer for TC 6, and member of Nominations Committee for Trustees at the time of the General Assembly in Varna, Bulgaria.

Congratulations on your new appointment and I look forward to seeing you at the Council Meeting in Munich in March 1985.

Sincerely yours,

A handwritten signature in black ink, appearing to be 'Kaoru Ando'.
Kaoru Ando

KA/ks

cc: Mr. J. Fourot
Prof. A. Danthine
Dr. G. Sacerdoti
Ms. G. Roberts

MD-12

IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : February 19, 1985

Address reply to : André DANTHINE

IF 85-04

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

TELEX 41797 SAUNLC.

Z. Papachristodoulou,
Dr. Ing. Inf.
125 Av. Gaston Dietrich
Luxembourg
Grand-Duché de Luxembourg

Dear Mr Papachristodoulou,

Let me first congratulate you for your nomination as
the TC 6 representative of Greece. (Oct 84) / Nov 84)

I want first to let you know that the next TC 6 meeting
will be held in Brazil (Porto Alegre) on May 31-June 1,
1985. The meeting will be held just after a conference
organized at the same place (in Porto Alegre) in which
many of the TC 6 delegates will participate as lecturers.
If you are interested to deliver a lecture at this
conference, please let me know by return.

I am sending you under separate cover, by surface mail,
Minutes of Past TC 6 meetings in order to give you the
opportunity to look at the kind of problems which are
discussed at these meetings.

I look forward to hear about you and to see you in Brazil.

Sincerely yours,

A. DANTHINE
TC 6 Chairman

c.c. H. LE ROUX
L. TAROUCO

MD-13

IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : February 19, 1985

Address reply to : André DANTHINE

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Montefiore, B 28

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au Sart Tilman
B - 4000 Liège (Belgique)

TELEX 41797 SAUNLG

IF 85-03

Villy Baek IVERSEN
Lektor, lic. techn.
IMSOR
Danmarks tekniske Højskole
DK - 2800 Lyngby
Denmark

Dear Mr Iversen,

Let me first congratulate you for your nomination as the TC 6 representative of Denmark. (Nov. 84) du 84

I want first to let you know that the next TC 6 meeting will be held in Brazil (Porto Alegre) on May 31-June 1, 1985. The meeting will be held just after a conference organized at the same place (in Porto Alegre) in which many of the TC 6 delegates will participate as lecturers. If you are interested to deliver a lecture at this conference, please let me know by return.

I am sending you under separate cover, by surface mail, Minutes of Past TC 6 meetings in order to give you the opportunity to look at the kind of problems which are discussed at these meetings.

I look forward to hear about you and to see you in Brazil.

Sincerely yours,

A. DANTHINE
TC 6 Chairman

c.c. H. LE ROUX
L. TAROUCO

MD-14



IFIP 25TH ANNIVERSARY - 1985

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : February 19, 1985

Address reply to : André DANTHINE

IF 85-02

Systèmes et Automatique
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Departamento de Informatica
Universidade Nova de Lisboa
Faculdade de Ciencias e
Tecnologica
Quinta da Torre
2825 Monte de Caparica
PORTUGAL

Dear Alexandre,

Let me first congratulate you for your nomination as the TC 6 representative of Portugal. *Dec 84.*

I want first to let you know that the next TC 6 meeting will be held in Brazil (Porto Alegre) on May 31-June 1, 1985. The meeting will be held just after a conference organized at the same place (Porto Alegre) in which many of the TC 6 delegates will participate as lecturers. If you are interested to deliver a lecture at this conference, please let me know by return.

I am sending you under separate cover, by surface mail, Minutes of Past TC 6 meetings in order to give you the opportunity to look at the kind of problems which are discussed at these meetings.

I look forward to hear about you and to see you in Brazil.

Sincerely yours,

A. DANTHINE
TC 6 Chairman

MD-15

c.c. H. LE ROUX
L. TAROUCO

President : K. Ando (Japan)

Vice-President : G. Glaser (U.S.A.)
Vice-President : A.W. Goldsworthy (Australia)
Vice-President : Bl. Sendov (Bulgaria)

Secretary : J. Fourot (France)
Treasurer : O.M. Dalton (Ireland)

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IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : February 19, 1985

Address reply to : André DANTHINE

IF 85-05

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 Université de Liège
 au Sart Tilman
 B - 4000 Liège (Belgique)

TELEX 41797 SAUNLG

Peter Radford
 Logica UK Limited
 64 Newman Street
 London W1A 4SE
 United Kingdom

Dear Mr Radford,

Let me first congratulate you for your nomination as
 the TC 6 representative of the United Kindgom. (*Jan 1985*)

I want first to let you know that the next TC 6 meeting
 will be held in Brazil (Porto Alegre) on May 31-June 1,
 1985. The meeting will be held just after a conference
 organized at the same place (in Porto Alegre) in which
 many of the TC 6 delegates will participate as lecturers.
 If you are interested to deliver a lecture at this
 conference, please let me know by return.

I sent you under separate cover, by surface mail, Minutes
 of Past TC 6 Meetings in order to give you the opportunity
 to look at the kind of problems which are discussed at these
 meetings.

I look forward to hear about you and to see you in Brazil.

Sincerely yours,

A. DANTHINE
 TC 6 Chairman

MD-16

c.c. H. LE ROUX
 L. TAROUCO



IFIP 25TH ANNIVERSARY - 1985

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : **May 12, 1985**

Address reply to :

Prof. Leon Łukaszewicz
Institute of Computer Science
Polish Academy of Sciences
00-901 Warsaw PKiN, Poland

Prof. A. Danthine
Systemes et Automatique
Institute d'Electricite
Montefiore, B 28
Universite de Liege aux Sart Tilman
B-400 LIEGE, Belgium

Dear Professor Danthine,

I am glad to inform you that, in accordance with your suggestion, Prof. Wojciech Sobczak has been nominated as the representative of the Polish Academy of Science to IFIP TC 6 (Data Communication).

Sincerely,

Leon Łukaszewicz

Prof. Leon Łukaszewicz

cc. Prof. W. Sobczak
IFIP Secretary

MD-17

IFIP 25TH ANNIVERSARY - 1985

IFIP

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

Address reply to : A. DANTHINE

IF 85-06

A. Melbye
Chairman Admission Committee
Morlenesvej 11
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Denmark

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
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au Sart Tilman
B - 4000 Liège (Belgique)

Dear Mr Melbye,

In July and October 1984, Gwyneth Roberts wrote to people from :

- Ivory Coast
- Senegal
- Pakistan

in order to give them some information about a possible membership in IFIP.

These letters follow contacts established previously by me at various meetings.

I would like to know if you get any reply or if you try to pursue the matter further.

Thank you very much.

Sincerely yours,

A. DANTHINE
TC 6 Chairman

c.c. Le Roux, Cognizant Officer

MD-18

IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

Address reply to : A. DANTHINE

IF 85-08

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Dear Professor Chon,

Coming back to a letter you received last year from the IFIP Secretariat in Geneva, I would like to stress that the TC 6 representative for the Republic of Korea has to be designated by the Korea Information Science Society which is the Information Processing Society representing your country (Bylaw 4.2.2. of IFIP).

Meetings of TC 6 take place twice a year in various countries generally in connection with a Data Communication event in which TC 6 is involved.

Please do not hesitate to contact me if you have any question about the participation in TC 6.

Very sincerely yours,

A. DANTHINE
 TC 6 Chairman

c.c. H.W. LE ROUX
 Dr. B.C. LEE, GA representative

MD-19

IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

Address reply to : A. DANTHINE

Systèmes et Automatique
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S - 4000 Liège (Belgique)

IF 85-09

H.W. LE ROUX
P.O. Box 45
Newlands
7725 Rep. of South Africa

Dear Mr Le Roux,

In connection with the membership of TC 6, I would like to mention that the following countries may designate a TC 6 representative in a near future :

- Egypt
- China
- USSR
- Rep. of Korea.

For all these countries, the contacts took already place and I would appreciate very much if it was possible for you to discuss this matter with the people you may meet at the Council.

Thank you for your help.

Sincerely yours,

A. DANTHINE
TC 6 Chairman

MD-20

IFIP 25TH ANNIVERSARY - 1985

IFIP

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

Address reply to : A. DANTHINE

IF 85-07

H.W. LE ROUX
P.O. Box 45
Newlands
7725 Rep. of South Africa

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

Dear Mr Le Roux,

In its last meeting, TC 6 reassess its will to replace or expel all its ghost-members.

I am sure that I may rely on you in this business which takes place generally through personal contacts at the General Assembly and the Council.

Today, the situation is the following :

- * the ghost representative of Poland has resigned, but a new delegate has not been nominated
- * the most prominent ghost-members are now :
 - Abderrazik, from Morocco
 - Gvozdzak, from Czechoslovakia
 - Harris Neville, from Ireland
 - Prof. Meier, from DDR.

These ghost-members never attended a TC 6 meeting and for the first two, I do not remember having received anything from them for years.

Harris Neville wrote to me, but it seems that he had some difficulties to get the financial support for his travels. May be some action on the Ireland representative may help on this matter.

Prof. Meier from DDR is one of the most recent members nominated and if he does not attend one of the next TC 6 meetings in Spring in Brazil or in Fall in Hungary, I think that he will deserve a full ghost-member treatment.

Thank you very much for your help.

Sincerely yours,

MD-21

A. DANTHINE
TC 6 Chairman

President : K. Ando (Japan)

Vice-President : G. Glaser (U.S.A.)
Vice-President : A.W. Goldsworthy (Australia)
Vice-President : Bl. Sendov (Bulgaria)

Secretary : J. Fourot (France)
Treasurer : O.M. Dalton (Ireland)

Tel: (01) 772941
Ext. 1765

Telex: 25442 TCD EI



DEPARTMENT OF COMPUTER SCIENCE
ENGINEERING SCHOOL
TRINITY COLLEGE
DUBLIN 2

30th April, 1985.

Professor A. Danthine,
Systems et Automatique,
Institut d'Electricite,
Montefiore, B. 28,
Universite de Liege,
au Sart Tilman,
B-400 Liege,
Belgium.

Dear Andre,

Many thanks for your notice and invitation to attend your TC6 meeting in Brazil. Yet again I have failed to obtain finance to allow me to attend this meeting. Having tried for at least the last two years to find finance to attend the TC6 meetings, without success, I am compelled to resign from the TC6 and make way for somebody else who might be more successful than me.

I am a member of WG6.4B but would like to become a member of 6.4. Please pass this message to Mr. Ravasio. It is much more likely that I will find finance for WG meetings from within my own department.

Good luck with your meeting in Brazil.

Kind regards.

Yours sincerely,

Dr. Neville Harris.

C.C. Dudley Dolan, Irish Computer Society,
Robert Cochrane, National Board of Science & Technology.

Sofia, 2 May 1985.

M. Andre DANTHINE
International Federation
for Information Processing
University of Liege
au Sart Tilman
B-4000 LIEGE

Dear Andre,

This is to thank you for your letter of March 29, received but a few days ago, referring to the TC 6 meeting in Porto Alegre.

The point is, I have not received an accompanying invitation by Mrs. Tarouco which will make it rather difficult to obtain visa in time. I shall be obliged if you would care to send me a more detailed information concerning the exact venue, the time-table, the time of arrival, the exact beginning of the meeting, the mode of transport, etc. useful particulars.

→ May I also suggest that a rule should be adopted to send invitations on similar occasions at least three months beforehand, in order to alleviate all kinds of formalities (for example, in this country the Brazilian visa takes rather a longer time to obtain). This will, I have no doubt, facilitate IFIP activities in future.

✓ I have not yet had any confirmation from you of the receipt of the Final Report of the Symposium on Networks in Office Automation. I shall be pleased to learn that it has been included in the National activities report. Neither have I received any information on whether you have ✓ transferred the sum of \$ 2500 granted by IFIP, on our bank account. The number of the account with the Foreign Trade Bank in this country was duly sent to you but I have not had any confirmation of this either.

A few words on the activities in this country. We have also organized the First National conference on Personal Computers with international participation "PERSCCM '85". Over 500 experts participated of which 60 came from more than 15 countries from abroad: USSR, USA, England, Spain, Japan, Greece, FRG, Hungary, Czechoslovakia, Poland and others. The

2.

Bulgarian participation covered representatives from 143 organizations. An exhibition was organized with demonstrations of personal computers, local PC networks, PC application in office work, technological processes etc. There were over 60 exhibits. Participating were companies from England, Austria and FRG. We also organized a visit to the PC production plants in the town of Pravetz, and a one-day trip. The conference received a large coverage by the press and the TV. Another, UNESCO-sponsored, conference, this time on Children in a Computerized World, starts next Monday in the city of Varna.

6-years
plan

I also wish to confirm my proposal for the Symposium on Network Information Processing System in 1988. I shall appreciate if at the Budapest meeting we succeed in defining the main topics so that I can prepare a draft of the call-for papers in time for the spring TC 6 meeting in 1986.

I still hope I shall be able, through your kind cooperation, to meet you in Brazil. Should that prove impossible through shortage of time, please apologise for me to all participants and wish them every success on my behalf.

Yours sincerely,



To : General Assembly Members, TC & SIG Chairmen

From : P.A. Bobillier

Dear Colleague,

At the General Assembly meeting in Varna, 19 - 21 September 1984, I not only finished my term of Past-President but also introduced my successor to the General Assembly - Prof. Dr. K. Bauknecht.

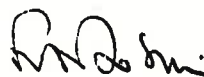
I would like to take this opportunity to again express to all of you my most sincere thanks for your friendship and support you gave me over the past years in my functions as President and, earlier, as Secretary. This period has been extremely important for me: I have made many friends, I have learned a lot and got a tremendous experience through IFIP meetings and events of all kind.

My objectives within the Executive Body have always been to promote IFIP at all levels, inside and outside, to increase the membership, especially in the developing countries, to give to our Technical Committees a better visibility and an increased share in our deliberations in Council and General Assembly meetings and to ease their administrative duties. I have fought continuously to improve the overall efficiency of the IFIP organization and always fully supported suggestions and proposals in this direction. I sincerely hope this trend will continue: there are many areas which can be further improved.

Although, it is with some melancholy that I am stepping down, I sincerely believe it is essential for the survival and prosperity of IFIP to inject new blood in the General Assembly. I wish my successor every success and as much fun as I had.

And to all of you - again - my sincere thanks for your friendliness and continuous support.

Best personal regards,



P.A. Bobillier

Geneva, 10 October 1984

MID-YEAR REPORT 1984-1985 (MARCH 1985)
TC6 - DATA COMMUNICATIONS

1. The International Symposium on Network in Office Automation was held in Sofia on 25-30 September 1984. The participation has been very high with 196 people from Bulgaria and 83 people from 17 other countries. A total number of 55 papers were originally accepted but 43 were presented at the conference. The Proceedings will be published by North Holland and include 39 papers. This symposium was held in the superb National Palace of Culture and very lively discussions took place during the symposium.
2. Network India 84 was held in Madras on October 19-21, 1984. This symposium was attended by 378 participants. A superb participant edition of the Proceedings has been distributed and the final Proceedings will be published by North Holland. Before Network India 84, a workshop/tutorial was held on October 17-18 to provide the computer professionals in India an opportunity to appreciate the use of computer communications inside and outside the company premises. This workshop was organized along 12 sessions, several of them being assumed by TC 6 members. Before and after Network India 84, one day tutorial has been delivered by TC 6 members in Bombay and Delhi. This was made possible through the support of IFIP Development Fund and ICID Fund.
3. A TC 6 Meeting was held in Madras on October 22-23, 1984. 11 members of TC 6 attended the meeting.
4. The First International Conference on Data Communications in the ISDN Era was held in Tel-Aviv, March 4-5, 1985. There was finally a short supply of the participants edition printed by North Holland due to the very large success of this event. From the 300 participants, 40 came from abroad. A detailed report will be available in the Annual Report of TC 6.
5. A meeting of WG 6.1/B devoted to Satellite Communications was held in Tel-Aviv on March 6 and attended by about twenty people.

Future Events

- A. Telematica 85, a symposium will be held in Porto Alegre, Brazil, on May 27-30, 1985.
- B. A TC 6 meeting will be held in Porto Alegre on May 31-June 1, 1985.

- C. A working conference on Protocol Specification, Testing and Verification will be held on June 10-12, 1985, in Toulouse.
- D. A conference on Messaging Systems will be held in Washington, on September 4-6, 1985.
- E. Comnet 85 will be held on October 1-4, 1985.
- F. A TC 6 meeting will be held just before or just after Comnet 85.
- G. A Data Communications conference will be held on March 24-26, 1986, in Johannesburg.
- H. A TC 6 meeting will be held March 27-28, 1986 in Cape Town.
- I. IBERICOM 87 will be held on May 18-22, 1987 in Lisboa.
- J. A TC 6 meeting to be held just before or just after the IBERICOM 87 in Sintra.

Events under study

- * A Workshop on Local Area Network in Spring or Summer 86 in Toulouse or Zurich.
- * Another conference on Data Communications in Africa (AFRICOM 87).
- * A TC 6 meeting in September 86 either in Dublin with IFIP 86 or in Munich with ICC 86.
- * A workshop on Local Network in Goa (India) at the end of 86 or beginning of 87.
- * A symposium on Network Information Processing Systems in Sofia in 88.

November 15, 1984
 A.W. Goldsworthy,
 C/- S.G.I.O. Building Soc.,
 P.O. Box 554,
FORTITUDE VALLEY. 4006
AUSTRALIA.
 TELEPHONE NO.: 61 (7) 253 3567
 TELEX NO.: 44432

Mr. G.J. Morris,
 International Computers Limited,
 ICL House,
 Putney,
 LONDON SW15 ISW
 UNITED KINGDOM.

cc Mr. J.E.D. Navez
 cc APC Members
 cc Dr. R.P. Uhlig

Dear Graham,

This letter is written to you in your capacity as the Chairman of the Task Group on Restructuring. You may be aware that a couple of weeks ago the International Conference on Computer Communications was held in Sydney (and I attended). I took the opportunity of discussing with some of the Executive Governors of ICCC the matter of the relationship between ICCC and TC-6. (I am also a Governor of ICCC).

Now that ICCC is an Affiliate Member of IFIP it is only sensible to look at what steps should be taken to rationalise, improve, strengthen, or whatever, the relationship between ICCC and TC-6. This is not to say that ICCC does not cover areas of interest which impact on other TC's, such as TC-11 and TC-9, but clearly the subject matter of ICCC is most closely aligned with TC-6.

At the outset I should mention that whatever transpires or is proposed we must not overlook the importance of the people involved. Andre Danthine is stepping down as Chairman of TC-6 and obviously the attitude and opinion of whoever replaces him will be of vital importance. Equally so will be the attitude of ICCC to whatever might be proposed. I see any significant change therefore being a rather long-term one, but it may well be achieved through a gradual progressive process.

It was generally agreed that the ideal long-term aim would be a merger of ICCC and TC-6, perhaps into a SIG. Obviously this could not, and undoubtedly would not, happen in the short term. One internal matter which is exercising ICCC's attention is a proposal to move their headquarters from Washington D.C. It was suggested that Geneva could well be an ideal site and would enable some mutual benefits by amalgamating with the IFIP office in Geneva. In real terms this would mean providing Gwyneth with perhaps an extra assistant. If there was a SIG this would also have other advantages in terms of financial control, overlap of activities and so on.

In the immediate term it was suggested that the TC-6 Chairman should be an ex-officio Governor of ICCC and ICCC should appoint an official liaison officer to TC-6 who would attend TC-6 Meetings as an observer.

I have arranged that the future plans of ICCC will be sent to Navez so that we can attach a future plan of ICCC activities to our Six Year Plan. I hope that it will be a three year plan and we can treat it the same way as we treat IMIA in this respect.

The question must be asked as to what benefits arise from merging activities. The first one is obviously the elimination of duplication and overlap.

Also, as ICCC grows more powerful there is greater potential for failure. ICCC would be strengthened by such a merger.

Regional activities would be strengthened by a merger, particularly in areas such as developing countries. This particular facet would be helped by the elimination of competition between the two bodies.

One project which ICCC is working on at the moment is in relation to international emergencies, and this area would be strengthened as the available resources would not have to be divided between competing groups.

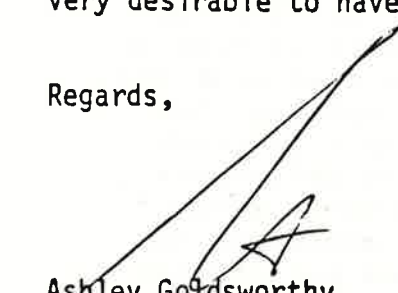
I have already mentioned the benefits of a common office in Geneva, and there could well be benefits to ICCC in having their funds managed from Geneva rather than from Washington.

As the TC-6 review is not yet finalised by copy of this letter I will ask Sacerdoti as Chairman of the Review Committee to address the need to strengthen relationships between TC-6 and ICCC.

In our restructuring exercise we could well use ICCC and TC-6 as a test case and example of how Affiliate Members and TC's should relate and organise their complementary activities. In the short term, for example, ie. prior to any merger, we should at least more precisely delineate the sphere of interest of the two bodies. It was suggested for example that a concentration by ICCC on the application and implications of the technology with the focus of TC-6 being on the theoretical aspects, with some obvious overlaps in the middle, could be a useful sort of starting point. Clearly we would need to play around with the semantics of the two areas but the general idea is fairly clear.

I have sent a copy of this note to other members of APC who may well have other ideas to contribute on this sort of problem. The whole question of Affiliate Members and their role within IFIP is a particularly important one. As we admit more Affiliate Members we are likely to face many more examples of this same sort of problem and hence it would be very desirable to have an acceptable formula worked out.

Regards,



Ashley Goldsworthy,
CHAIRMAN.
Activity Planning Committee.

IFIP Restructuring

At the Fall 1984 TC-6 meeting in Madras, India, TC-6 discussed a number of issues related to the study of IFIP restructuring which is currently under way. The discussion centered around "what has IFIP done well?" and "what has IFIP done badly?"

It was the concerns of the TC-6 members in attendance in Madras that TC-6 is "very international" and is not aligned with any region or group of regions. IFIP has also done well in avoiding international politics.

In considering in general terms what IFIP has done badly, it was agreed that there is some problem with the IFIP image. To some extent IFIP is regarded as an "academic" organization which is not doing work relevant to the real world. This view prevails more in North America and is not so strong in Europe.

IFIP has played (and continues to play) a major role in "prestandards concensus formation". An example is the work of WA6.5 which formed the basis for the CCITT X.400 series of standards for Message Handling Systems. Work in WA6.1 formed the basis for X.25 and related standards earlier in the history of TC-6. IFIP is the only form of this kind. This represents a valuable contribution to data communications and information processing. This role should be continued and strengthened.

There was a feeling that IFIP has significant possibilities as a "world professional society". There is a partially unfulfilled possibility for IFIP to interact with and engage in joint work with other professional societies. Although not specifically discussed at the Fall 1984 TC-6 meeting in Madras, there is also a possibility for IFIP to act as a international professional society in the sense of certifying credentials of its members.

On the overall topic of communications, there was a consensus that IFIP is too dependent on its triennial world computing congresses. There was also concern over lack of communications between the IFIP Technical Committees and between the TC's and its Associate and Affiliate Members. It is difficult to find out where other TC's and WA's are concentrating, other than from the annual IFIP bulletin. The new IFIP Newsletter is helping, but for budgetary reasons, its distribution is relatively limited. Because the content of the triennial congresses has deliberately been divorced from the work of the TC's and WA's there is no forum where TC and WA's can meet to discuss joint concerns, nor is there any meeting place which provides for cross pollination of ideas between TC's and their WA's. This part of the discussion also led to a concern that there is need for more flexibility if IFIP were organizing for the first time today.

Finally, in the area of communications, TC-6 believes that a world wide computer communication system should be developed and used within IFIP, to facilitate communication between all of the various people who make up IFIP.

There was some concern expressed that there needs to be more official contact between IFIP and the United Nations and UNESCO. This might take the form of an IFIP representative on permanent assignment to UNESCO.

Ronald P. Ukley
U.S. AFIPS Member TC6
March 1, 1985



IFIP 25TH ANNIVERSARY - 1985

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

IF 85-10

Address reply to : A. DANTHINE
TC 6 Chairman

Ashley GOLDSWORTHY
APC Chairman
P.O. Box 554
Fortitude Valley 4006
Australia

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

Dear Ashley,

Subject : Tutorials in developing countries

In connection with the Madras event in last October 1984, three tutorials have been organized :

- one by Louis Pouzin
- one by Tibor Szentivanyi, in Delhi
- one by myself, in Bombay.

For Louis, money comes from outside IFIP environment. For Tibor, I finally advised the use of the ICID funds which have been allocated very lately.

It is not easy as a participant to assess the interest of these tutorials. My personal feeling is that the tutorials have been well received by the attendees. But direct contact with the Indian representative at the General Assembly will probably provide you with additional information about it.

During the TC 6 meeting, the problem of the format of the tutorial and its connection with an IFIP event has been widely discussed. I suggest that APC looks into this problem from a more wider point of view. Some people believe that these tutorials may be organized without any relation to a workshop or a conference, or a TC meeting. Some others are more inclined to keep them attached to another IFIP sponsored event.

As at the TC 6 level, we are already deeply involved with activities in the developing world, I am not willing as TC Chairman to take the responsibility of organizing tutorials not related to TC events. This however may be different for other TC or for another TC 6 Chairman.

I want to thank you for your help in this use of IFIP Development Fund which enables us to explore a new way of making visible the image of IFIP in the developing world.

Sincerely yours,

A. DANTHINE

c.c. Narashiman

President : K. Ando (Japan)

Vice-President :
Vice-President :
Vice-President :

(A.)
rthy (Australia)
lgaria)

Secretary : J. Fourot (France)
Treasurer : O.M. Dalton (Ireland)

IFIP Secretariat : 3 rue du Marché, CH-1204 Geneva, Switzerland

MD-32

26 49 - Telex : 428 472 IFIP CH - Cable : IFIPSEC GENEVA

COMPUTER SOCIETY OF INDIA**Bombay Chapter****One day Seminar By Prof. Andre Danthine****Cosponsored by IFIP TC6 and Networks 84**

- Subject** : Local Area Networks
Principles and Standardization
- Date and time** : Tuesday, 16th October, 84
9.30 AM to 1 PM 2.30 PM to 6 PM
- Place** : Hotel West End
Bombay
- Speaker** : Prof. Andre Danthine is on the Faculty at the University of Liege, Belgium. He is the Chairman of the Technical Committee No. 6 of the International Federation for Information Processing, dealing with Data Communication and Computer Networks.
- Tutorial Contents** :
- Concept of LANs
 - Media Characteristics
 - Coding and Modulation
 - Baseband versus Broadband
 - Topologies (Star, Ring, Bus, Tree)
 - Access Methods possible with each Topology
 - The Cambridge Ring
 - The Ethernet Story
 - The 802 Work
 - IBM and the LAN
 - The LAN and ISDN
 - Corporate Networks
- Fees** : Rs. 300 per participant.
Includes lunch and tea.

Intending participants may please inform :

Ms Tara Turner
C/o. CMC Limited,
World Trade Centre
Cuffe Parade, Colaba
Bombay 400 005.

(Ph. 21 91 81

Telex : 011-3854 CMC)

Cheques should be drawn in favour of Computer Society of India,
Bombay Chapter.

Organizers : V. K. Dogra
S. Ramani
S. Krishnamurthi

COMPUTER SOCIETY OF INDIABOMBAY CHAPTERTUTORIALS ON LOCAL AREA NETWORKS BY PROF ANDRE DANTHINEOCTOBER 16, 1984List of Participants

Mr Atanu Banerji	ACC
Mr L Sridhar	Akbarally's
Mr M G Mody	Batliboi & Co. Ltd.
Mr A M F. tankar	BARC
Mr Kamal Kumar	BARC
Ms Swati Kapadia	Bombay Suburban Elec. Supply
Mr G F Chandrasekhar	Bombay Suburban Elec. Supply
Mr Harish Bhat	Hinditron Computers
Mr Bhaskar Babu	Hinditron Computers
Mr Dilip Mehta	Hinditron Computers
Mr V M Gupta	ICIM
Mr V Nilakantam	IDM
Mr S V Gunaji	J N Marshall
Mr Sunil Bajaj	Quantum Systems
Mr Maunish Vyas	Quantum Systems
Mr Anil Apte	S&S Consultants
Mr Vinay Gavankar	S&S Consultants
Mr H M Panday	Tata Burroughs
Mr Sanjiv Agashe	Tata Burroughs
Mr Ravi Mehta	Tata Burroughs
Mr S Y Watve	Tata Elec. Co.
Mr A Ravichandran	Tata Elec. Co.
Mr Singh	Tej Computers
Mr Prakash Jain	Tie India International
Mr V S N Reddy	TIFR
Mr A Kaura	Voltas Ltd.
Mr N Jejodia	Voltas Ltd.
Mr Ramesh Bharadwaj	
Mr P K Ghosh	
Ms A S Irani	
Mr S P Joshi	NCSDCT
Mr P A Koparkar	
Mr V S Rao	
Mr T M Vijayaraman	
Mr K Vinod Kumar	
Ms Geetha	
Mr S G Ravikumar	
Mr B B Goel	CMC
Mr S D Phatak	
Mr R K Khanna	
Mr Rajiv Mathur	
Mr S Raghavendra	



IFIP 25TH ANNIVERSARY - 1985

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

IF 85-11

Address reply to : A. DANTHINE

Ashley GOLDSWORTHY
APC Chairman
P.O. Box 554
Fortitude Valley 4006
Australia

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

Dear Ashley,

Subject : Tutorials in connection with Telematica 85 in Brazil

Out of the 3 000 dollars provided by you for the tutorials in India, only 1 000 have been used.

Liana Tarouco, who is organizing Telematica 85 in May 1985 in Brazil, is eager to have also the opportunity to organize tutorials just before or just after this event.

I request from you a grant from the IFIP Development Fund of 3 000 dollars in order to be able to organize 3 seminars.

From the past experience, I think that 1 000 dollars by people is a very good basis which allows to cover most of the travel costs and even in some cases part of the expenses which are supported by the guest country.

Thank you very much for your help and my apologies for being so late with this request.

I must however admit that it is more and more difficult for me to manage the TC 6, but I will do my best to keep the activities going until a new TC 6 Chairman takes over around October this year.

Sincerely yours,

A. DANTHINE
TC 6 Chairman

c.c. H.W. LE ROUX
O. DALTON
IFIP Secretariat



INTERNATIONAL COUNCIL FOR COMPUTER COMMUNICATION
P.O. BOX 9745, WASHINGTON, D.C. 20016

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February 14, 1985

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 Telephone: (403) 423-8020

Dear ICCC GOVERNOR:

To assist you in contacting your fellow Governors, I have enclosed a copy of the latest roster, including those people elected at our meeting of October 29, 1984, in Sydney, Australia. At that meeting Dr. Ronald P. Uhlig was elected your Secretary-General effective January 1, 1985. As you know, the Secretary-General serves as the point of contact between the Governors and the Council.

I want to thank you for your support and responsiveness to my various communications in the past and to say that I look forward to meeting you at future ICCC events.

Sincerely,

M. C. Andrews

ap

Enclosures

Communication, Computers, Command
and Control Systems Associates

C⁴S

יגוק וחקנון
חקשורת, מחשבים, שליטה ובקרה

Prof. A. Danthine
Systems et Automatique
Institut d'Electricite
Montefiore, B 28
Universite de Liege
au Sart Tilman
S - 4000 Liege Belgique

Bis/E/00072
22.4 1985

Dear Andre,

I wish to inform you again that according to the feedbacks we had the ISDN conference was a success. There were 40 international guests even from Australia and some 200 from Israel.

I wrote according to your suggestion to Mrs. Tarouco but still did not receive any reaction.

I shall appreciate if you will inform me as soon as possible on the next meeting, the agenda and if there may be some possibility to be supported by. I suggested to Tarouco to give them a seminar.

Please notice my address I still receive mail on my former address and this means a great delay in delivery and even a loss of some mail.

Best regards, sincerely yours,

Dr. David Biran

5 IZHAK ELHANAN St., P.O.B. 2183
RAMAT-HASHARON 47218
TEL. 03-494926
TELEX: 33647 ALDA IL Attn. NTZ

MD-37

רח' יצחק אלחנן 5, ת.ד. 2183
רמת-השרון 47218
טל. 03-494926
טלקס: 33647 ALDA IL Attn. NTZ

IFIP 25TH ANNIVERSARY - 1985

IFIP

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : November 30, 1984

Address reply to : A. DANTHINE TELEX 41797 SAUNLG

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

IF 84-49

From : A. DANTHINE
To : Liane TAROUÇO
UFRGS
Centro de Processamento de Dados
Rua Antenor Lemos 90
90000 Porto Alegre-RS
BRAZIL

Please find enclosed the summary of the proposals for the Brazil event next May.

Please let me know your order of preferences in relation with the tutorials. I expect to be able to support 3 of them from IFIP fund.

For me a solution with SCI equivalent to the one proposed to Donald Davies will be very convenient.

Wait for your reaction.

Regards,

A. DANTHINE
TC 6 Chairman

P.S. TC 6 is planned in Brazil but it is essential to finalize the program of your event as soon as possible.

SUMMARY OF PROPOSALS FOR BRAZIL

This summary is presented in the following way :

Name of the TC Member.

1. Proposed paper (s)
2. Proposed tutorial (s)
3. Readyness to serve in the following position : PCM (Program Committee Member), SC (Session Chairman), P (Panelist)
4. Support needed.

BOUTMY

1. Corporate Networks
2. Organization
3. Network Control
4. None

DANTHINE

1. A Backbone Wideband Network for LAN Interconnection
2. a) Local Network Principles
b) Local Network Standardization
3. PCM, SC, P
4. Up to 100 % APEX fare ?

DAVIES

1. Digital Signatures in Commerce and Banking
2. None
3. None
4. Transport from Rio/Sao Paulo; return and (max) 2-3 days hotel for 2 persons
NB I am occupied in Sao Paulo on 29-31 May, paper must be given on 27 May

GRANGE

1. a) Business Satellite Systems (SBS, EUTELSAT, TELECOM 1)
b) New Communication Services offered by Satellite Systems
c) New Computer Applications using Satellite Systems
d) Satellite and ISO Model, Architecture, Protocols. The NADIR Project
2. a) Satellite Computer Communications - Problems and Implications
3. PCM, SC, P
4. None on travel

GRANADO

1. Interbank Networking
 1. a) Messaging Systems for Banking Applications
 2. None
 3. None
 4. No travel grants needed.
- NB I prefer to present the papers in Portuguese !

KHAKHAR

1. a) Data Communication Strategies for Industries - Case Study
b) On Document Transfer between coord. processors
2. a) Distributed Systems
3. SC; P
4. Yes

POUZIN

1. a) Network Protocols
b) Videotex Techniques
c) Personal Computers as Communication Tools
d) Interconnection of Heterogeneous Mail Systems
2. a) How to use a packet switching network
b) Network Architecture, Protocols and Standardization
c) Local Networks
3. SC; P
4. 50 to 80 % of APEX or excursion fare

SZENTIVANYI

1. Some provider and user problems in networks and their solutions
2. Social effects of services mediated by computer networks
3. PCM; SC; P
4. Travel assistance (up to 100 % of APEX fare)

SUNSHINE

1. a) Network Interconnection
b) Broadband Local Area Networks
c) Protocol Specification and Verification
d) Data Communication Network Security
e) Arpanet Protocols and Recent Developments
2. Same as 1
3. SC
4. Partim of APEX or excursion fare

UHLIG

1. Computer Message Standards
2. Computer Message Systems
Office Applications and Systems
3. SC; P
4. No travel support required, so long as TC 6 meeting is held in Brazil

Department of Computer Science
UNIVERSITY COLLEGE LONDON
GOWER STREET LONDON WC1E 6BT

Professor P. T. Kirstein, Head of Department

TELEPHONE 01-387 7050

M. Andre Danthine,
Univ de Liege B28
Montefiore, Sart Filman,
B-4000 Liège,
Belgium

5 November 1984

Dear André,

IFIP Working Group 6.4A

As you know, Working Group 6.4A was set up in September 1983 on Local Area Network Management. Since then it has grown in size to some two dozen members, and two mailshots have been distributed. Despite this, we were concerned to note in the June 1984 IFIP Information Bulletin, that there was no mention of this group. We have enclosed a current list of members, which we trust will be published in a future issue.

We note with interest the present attempts to make WG.6.4 more active and feel that it would be desirable for WG.6.4A to be subsumed into the parent group in such circumstances. There are many areas of LAN Management which cannot be dealt with in isolation, in particular:

- Name management
- Authentication and Access Control
- System configuration
- Novel protocols, eg. RPC, Broadcast etc.

We would like to see a strong group dealing with these topics among others, and if WG6.4 were to play this role, we would be happy for WG6.4A to be included. However, until WG6.4 becomes active again we will continue to run WG6.4A.

SW2AAU

MD-41

We also note that IBM are preparing to co-sponsor a Working Conference on "LAN Management and Services" in Summer 1986. We are currently preparing a two day workshop in London on a similar theme for September 1985, and would be grateful if you could publicise it through the IFIP mechanisms and publications. Please let us know if this is something we should do directly rather than through your good self.

Regards,

Brian.

Professor E.B. Spratt (Chairman WG6.4A)

Styl R. Wilbur

S.R. Wilbur (Secretary)

IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

IF 84-48

Date : November 20, 1984

To E.B. SPRATT
WG 6.4/A Chairman
Computing Lab.
University of Kent
Canterbury Kent CT2 7NF
England

Address reply to : A. DANTHINE **TELEX 41797 SAUNLO**

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

Dear Brian,

Thank you very much for your letter of November 5. If nothing has been mentioned in the IFIP Information Bulletin, it is due to the fact I was not aware of anything.

Please add my name as member of the WG 6.4/A in such a way that I will get also the mailshots.

I want to let you know that Greg Hopkins has slid down as chairman of 6.4 and that the TC 6 has decided to propose a new chairman, Piercarlo Ravasio.

As we are trying to build a mailing list involving all people in connection with TC 6 activities, I would appreciate to receive from you the names and complete mailing addresses of the 6.4/A bases. I hope to be able, in the beginning of next year, to provide to any people involved in TC 6 related activities the complete mailing list or a subset of it on geographical or interest basis.

To publicize the September 1985 workshop organized by your working group, I suggest to provide me as soon as possible a one-sheet of paper information about the venue and all the details and I will channel this information through TC 6 columns in several journals.

With my best regards,

A. DANTHINE
TC 6 Chairman

c.c. S.R. WILBUR
Department of Computer
Science - University
College London
Gower Street,
London WC1E 6BT
ENGLAND

c.c. Piercarlo RAVASIO
Manager
R & D, Systems Architectur
ItaltelTelematica
Piazzale Zavattari 12
20149 Milan
ITALY



The University of Western Ontario

Department of Computer Science
Middlesex College
London, Canada
N6A 5B7

April 8, 1985

Professor André Danthine,
Systemes et Automatique,
Institute D'Electricite,
Montefiore B28,
Universite de Liege,
B-4000 Liege,
Belgium

Dear Professor Danthine:

Re: IFIP WG6.5 Handi-Communications Newsletter

Ron Uhlig has written to me confirming that TC-6 approved a grant of \$300 US for the newsletter. Please can you tell me how I get the money? Presumably IFIP will issue a cheque, and it can be made payable to Handi-Communications and sent to me here at the University of Western Ontario. I would like to get the money quite soon, as funds are low and I ought to produce the last issue of Volume I.

You may be interested to know that the newsletter did get a \$300 grant from the Secretary of State of Canada. I don't know if you have received the most recent issue (production has been stalled since last September because of my health), but if you wish for them please let me know.

I look forward to hearing from you.

Sincerely,

Julian Davies
Associate Professor
Editor: Handi-Communications

DJMD/hb

CALL FOR PAPERS

Fifth International Workshop on

« Protocol Specification, Verification and Testing »

June 10-13, 1985

Toulouse - Moissac (France)

The Fifth International Workshop on Protocol Specification, Verification and Testing, will be organized by the LAAS du CNRS and held in MOISSAC, in the TOULOUSE area. Papers presenting contributions in any field of Protocol Specification, Verification and Testing are sought and workers active in this area are invited to participate.

Attendance will be limited to 60 people to allow a high level of interaction and each participant will be required to submit a paper covering recent research in the field. To encourage submission of the most current work, papers will not be fully referred and the final versions will be due only at the Workshop.

PAPERS

Authors are invited to submit 3 copies of an extended abstract (approx. ten pages) or a full draft paper clearly stating the aim of the work and its main result(s) by March 15.

Copies of the papers will be distributed at the Workshop ; the proceedings will be printed by the North Holland publishers and mailed to the attendants after the Workshop. High quality papers selected by the Program Committee will be published in a special section of Computer Networks or the IEEE Transactions on Communications. In order for the papers to be printed in the proceedings or later in the two journals, copyright must be assigned to IFIP.

The submitted 3 copies should be sent to the Chairman :

Michel DIAZ
IFIP Workshop on Protocols - LAAS du CNRS
7, avenue du Colonel-Roche - 31077 TOULOUSE CEDEX - FRANCE

Full papers, of less than 25 pages, will be due on May 8th on usual A4 page forms for distribution at the meeting. Special IFIP forms will be mailed in May and the final copy of the papers will be due on June 13th for printing the North-Holland proceedings.

WORKSHOP LOCATION

The Workshop will be held at the « Relais du Moulin », in MOISSAC, a little town about 60 km from TOULOUSE, easily reached by car, bus or train from TOULOUSE.

FURTHER INFORMATION

For further information, contact either : Michel DIAZ - LAAS du CNRS
TOULOUSE - France - Tél. (61) 25.21.47 - Telex : LAASTSE 520930 F
or Harry RUDIN - IBM - Zurich Research Laboratory - Switzerland
Tél. (01) 724.27.27 - Telex : IBMRU 53626 CH.

-1-

10th World Computer Congress
 IFIP Congress '86
 September 1-5, 1986
 Dublin, Ireland

Programme Committee Chairman

Dines Bjørner
 Department of Computer Science
 Technical University of Denmark, 343
 DK-2800 Lyngby, Denmark

30.March 1985

Telephone: ++45-2-872622
 Telex: 37704 ddc dk

INFORMATICS

- a new awareness

Final Call for Papers / Preliminary ProgrammeContents

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Past Chairman

Dennis C. Tsichritzis
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1 ===== TOPICS AT A GLANCE

IFIP Congress '86 will feature 4 streams of 10 areas:

I: The Components Design Stream:

1. *Theoretical Computer Science*
2. *Programming Science and Methodology*
3. *Software Engineering*
4. *Computer Engineering*

II: The Systems Design Stream:

5. *Distributed Systems*
6. *Information Systems*
7. *Artificial Intelligence*

III: The innovative Applications Stream:

8. *Computer Integrated Manufacturing*
9. *New Informatics Applications*

IV: The Social, Economics, Legal and Human Concerns Stream:

10. *Informatics in a Developing World*

Turn to section 7, page 7, for a detailed description of these streams, and to section 8, pages 8-27, for a detailed description of the areas, and for the particular emphasis this congress wishes to place on the presentation of the topics.

Currently "hot" items like eg. *Office Automation* will be featured across several areas, notably: *Distributed Systems*, *Information Systems*, *Artificial Intelligence* and *New Informatics Applications*; *Knowledge Based Expert Systems* will be in the area of *Artificial Intelligence*; etc.

2 ===== PRESENTATIONS AT A GLANCE

IFIP Congress '86 will feature:

- some 47 Invited Speaker and Responder 1½ hour sessions
- some 28 Panel 1½ hour sessions (not all are listed)
- some 30 Contributed Paper 1½ hour - 3 paper sessions

Turn to odd pages 9-27 for a preliminary programme of invited speakers, responders, panelists and topics.

There may be minor changes to the number of invited/responder and panel sessions.

3 ===== PARTICIPATION CATEGORIES AT A GLANCE

IFIP Congress '86 seeks contributors and participants from the following categories:

A: EDP Professionals

- EDP Consumers
- EDP Consumption, Production and R&D Management

B: Application Systems Designers

- Systems and Applications Analysts and Programmers
- Small and Large EDP Computer Centers

C: Computation Scientists and Engineers

- Computer and Software Engineers coming from Manufacturers, Software Houses and Computer Service Installations
- Computer and Software Industry Developers and Researchers
- Scientists coming from Academe

D: Policy Makers and Planners -- People from:

- International Organisations
- Local and State Government Civil Servants
- the Corporate Staff from International Companies

4 ===== TWO WAY TRANSFER OF AWARENESS

IFIP Congress '86 stresses transfer of awareness between these categories, emphasizing transfer

- of component design techniques and technologies from research to development, from science to engineering,
- and of development expectations to research;
- of systems design methods, techniques and technologies from development to consumers,
- and of consumer expectations to research and development;
- of knowledge about resource requirements from research, development, consumers and education to policy makers and planners,
- and of policy and planning expectations to the informatics profession in general.

Turn to section 6, pages 5-6, for a more detailed description of how the congress intends to involve you as an active contributor, and to serve you as a participant, in order to achieve the above hinted cross fertilisation.

5 ===== THE AWARENESS GAP AND IFIP CONGRESS '86

The interaction between research and development, and between development and consumers is far from satisfactory. Advanced techniques and methods are not widely used, or even known in many organisations throughout the world. Researchers often ignore what are the real problems faced by practitioners.

Presentations: invited, responses, panels and contributed papers, with a broad scope rather than narrow, isolated topics will be encouraged. Breadth of scope means one or more of the following characteristics:

- addressing a wide class of real problems
- relating different, alternative or complementing development and application approaches
- filling gaps between different fields
- expressing in a coherent and explicit way the rationale of a major approach

Basically technical presentations are sought. But *IFIP Congress '86* also seeks and has planned some flavour of tutorials, reviews, overviews and comparisons -- without necessarily being exhaustive.

Emphasis will be put on recent breakthroughs in theory, methods, techniques and technologies that show definite, unquestioned or maybe even controversial, debatable promise for development and applications. Presentations on recent consensus or acceptance of theory, methods, techniques and technology in applications are likewise encouraged.

IFIP Congress '86 will present invited papers, responder replies, and panels, and seeks contributions, which will explain "why the work, they report on, was done", "what was it to be used for", "who are, or were, the intended users", "what are the underlying theory, model, and paradigm", "what experience was gained during realisation", "what are its characteristics in practical use", "what are its advantages over other, competing, anterior approaches", and "what are the experiences of actual users".

Turn to even pages 8-26 for more detail on the specific emphasis the individual areas will put on their presentations. But note, that although the areas have been individualized, their highly professional, technical presentations will, and shall reach out to participant groups not normally identifying with these areas.

6 ===== WHO SHOULD AND WHY SHOULD YOU COME TO IFIP CONGRESS '86 ?

-- and HOW should YOU direct your contributed paper for the 10th *World Computer Congress*?

IFIP Congress '86 seeks participants from the following categories and for the following reasons:

1. EDP Consumers -- professionals who are primarily interested in getting specific end-user applications to work --
 - will find tutorial, overview, and review presentations and panels referring to equipment, software systems, techniques and methods recently made available or currently under prototype experimentation, and
 - are hereby invited to themselves indicate their needs, expectations and problems to researchers and developers.
2. Managers of computer and software, and applications research, development and installations
 - will be offered overviews of scientific, technological and industrial evolution,
 - in which the effects of new methods -- becoming relevant to practical applications -- will be stressed from the technical, economical and educational point of view, and
 - in which various scenarios of the interaction of innovative deployments and their time scale will be shown and discussed.
3. Application Systems Designers: Analysts and Programmers
 - will find material which outlines new systems design techniques needed in creating new innovative systems incorporating distribution, information and intelligence.
4. Computer and Software Engineers from manufacturers, software houses, and computer service installations
 - will find material which discusses the actual impact on their profession, of techniques becoming feasible, but techniques whose importance or influence on newer products is still subject to debate, or even controversial,
 - and which offers them the necessary input on real problems perceived by end-users presenting significant applications.

5. Computer and Software Industry Researchers and Developers

- will find material which presents newer research tracks and results which will bear fruit in solving their own components development problems, and
- which introduces them to the state of the art of recently developed methods and techniques related to their components area, aspects which will prove necessary to master and create new and innovative computer and software components and tools.

6. Computer Scientists coming from academe

- will hear prominent, technical presentations from their area, but aimed at other target groups,
- and will hear carefully selected presentations from other target group professionals aimed at them:
 - outlining transfer of their results to practice, respectively
 - formulating, for them, new expectations of theory.

7. Policy Makers and Planners will find sessions which typically discuss:

- strategies for technological self-reliance,
- strategies for qualified man-power creation,
- identification of innovative applications to assist in socio-economic development, and
- steps to make informatics more easily accessible to everyone.

7. ===== A CLOSER LOOK AT THE CONGRESS STREAMS

IFIP Congress '86 will present invited talks with supplemental or contrasting responder rebuttals, will present panels staffed with outspoken panelists, recognized leaders of their field, and seeks contributions such that:

The Components Design Stream

-- of areas emphasizes the individual disciplines which are at the basis of any systems design and end-user application. The congress will present the new results which primarily influence what new, innovative applications are feasible.

The Systems Design Stream

-- of areas emphasizes the cross-disciplinary methods, techniques and technologies which together provide for systems that better fit actual end-user needs.

The Applications Stream

-- of areas emphasizes the presentation of successful case stories, successful in having achieved either a high affinity to actual user needs, or having been developed at reasonable cost, and otherwise displaying a high reliability, robustness, quality, etc., or exhibiting hitherto unexpected, new, innovative applications of informatics.

The Informatics in A Developing World Stream

-- principally features subjects of concern to the developing countries; but also international policy and planning, as well as legal, social, and economic concerns of information technology initiatives in highly developed countries could be the subject.

8 ===== AREA DESCRIPTIONS AND PRELIMINARY PROGRAMME

8.1 Theoretical Computer Science

Prof. Vadim Kotov
Computing Center
Siberian Division
USSR Academy of Sciences
Novosibirsk, 630090 U.S.S.R.

Telephone: USSR (383) 2655652

Theoretical computer science involves the theoretical and experimental study of the basic properties of algorithms, computers and programs, as well as the development of mathematical tools and methods to support such a study.

Items for which presentations are sought include:

- Mathematical foundations of computer science (eg. abstract machines, algebras and logics of computation).
- Formal semantics of program, system and programming concepts.
- Innovative techniques for analysis, optimisation and transformation of programs and systems.
- Basic algorithms for novel computer architectures (eg. parallel, distributed and VLSI) and for novel applications (eg. knowledge engineering and image processing).

Presentations in this area should stress the importance of the theoretical results to achieve better understanding of the fundamental laws of information processing and application of these laws practical system design and implementation.

MD-50

	<u>TYPE</u>	<u>NAME</u>	<u>TOPIC</u>	<u>COUNTRY</u>
+	I	J. Allan Robinson	The future of Logic	USA
+	R	Enn E. Tyugu	Programming	SU
+	I	Hartmuth J. Genrich	Net Theory and its	FRG
+	R	Rocco de Nicola	Applications	I
+	I	R. Milner	Behavioural Models of	GB
	R	Willem Paul de Roever	Concurrent Systems	NL
+	I	V. V. Voevodin	Impact of New Computer	SU
+	R	J. Miklosko	Architecture on Algorithmics	CS

+	Panel 1	Josef Gruska	Pragmatic Aspects of	CS
		Melhorn	Complexity Theory	FRG
+		Slisanko		SU
		L. G. Valiant		GB
	Panel 2	Per Marti-Löf	Logic and Computation	S
		R. Parikh		USA
+		Satoru Takasu		J
		Istvan Nemeti		H

LEGEND: I: Invited Speaker
R: Responder

- + Has confirmed informal invitation
- ? Still considering
- Not yet contacted
- (Blank) Contacted, but no reply yet

() Alternative choice

8.2 Programming Science and Methodology

Prof. Dr. Ugo Montanari
Dipartimento di Informatica
Universita di Pisa
Corso Italia 40
I-56100 Pisa, Italy

Telephone: ++39-50-26362 or 40864
Telex: 500371 cnuce i

Programming science and programming methodology study techniques for developing programs and systems. Methods based on structured, verifiable and executable specifications are main topics. Theory, languages, and tools for supporting such methods are considered. Emphasis is placed on methodological results useful in software engineering and system design.

Items for which presentations are sought include:

- Theory of Programming
- Program and System Specification
- Formal, Rigorous and Systematic Program Development
- Logic, Functional and Algebraic Specifications and Programming
- Modularisation - Concurrency
- Proof and Verification Methods
- Program Transformation Techniques

This area is intended to provide a two-way bridge between computer scientists and system designers, stressing conceptual and methodological issues involved in system design.

	TYPE	NAME	TOPIC	COUNTRY
+	I R	R. Balzer V. Staning	Innovative versus Evolutive Approach to Software Life Cycle	USA GB
+	I R	T. S. E. Maibaum R. Orejas	Role of Abstraction in Program Development	GB E
+	I R	J. E. Goguen G. Levi	One, None, One Hundred Thousand Specification Languages	USA I
+	I R	H. Ehrig A. Tarlecki	Programming in-the- large with Specification	FRG PL
+	I R	A. Pnueli J. Sifakis	Proving Properties from Specification	IL F
	Panel 1	S. Crespi Reghizzi (T. Chatham M. C. Gaudel W. Wulff	Automation in Software Development	I USA) F USA
	Panel 2	E. Sandewall L. Gardelli B. Lang	Environments for the Development of Specifications	S USA F
?	Panel 3	B. Liskov R. Burstall Kazuhiro Fuchi O. Roubina	Specification Languages are Programming Languages	USA GB F F

8.3 Software Engineering

Dr. Balint Dömölki
SZKI

Institute for Co-ordination of
Computer Techniques
1 Donati u. 35-45
H-1015 Budapest, Hungary

Mr. Horst Hünke
Commission of the European Communities
Information Technologies and
Telecommunications Task Force
Rue de la Loi 200
B-1049 Bruxelles, Belgium

Telephone: ++36-1-868-632
Telex: 225381 szki h

++32-2-235-7666
21877 comeu b

Software engineering considers software development as an industrial activity, carried out by groups of specialised, professional software engineers in a co-operative manner, using appropriate engineering methods, tool systems, and standards.

Presentations are sought that emphasise the pragmatic engineering aspects of software development. This includes the creation of methods and tools based on research results in theoretical computer science and programming methodology, the creation of vertically integrated development aids which are based on a unified view of the development process. Of interest are also the necessary trade-off compromises of practical systems -- systems that exist in a larger industrial environment. This means systems that are designed to support software development as a commercial activity, and which aims to make software products which can be used and which are competitive.

Areas for which papers are sought include:

- Innovative and integrated systems of tools and methods
- Management of the software development process
- The development and use of standards for software engineering and for software products
- Methods for the comparative evaluation of methods and tools
- Measures of properties of software products, especially for quality characteristics
- Software in the mass market (eg. for personal computers) and software engineering for mass products
- Development of applications using knowledge based techniques and software development "without programming"
- The relationship between technical issues and development cost or life cycle cost
- System development as a social activity

Papers should give the rationale for the approach described, including the underlying theory or paradigm. They should report on the implementation or realisation, and ideally contain a case study or systematic evaluation.. If applicable, they should state quantitatively what improvement has been achieved in comparison to other competing or anterior approaches.

TYPE	NAME	TOPIC	COUNTRY
+ I R	Barry Boehm Vesselin Spiridonov	Knowing and Controlling the Cost of Software	USA BG
I R	Gerald Weinberg	Computing with all Parts of the Brain	USA
+ I R	Kresten Nygaard	Software Development as a Social Activity	N USA
+ I R	Ole N. Oest	VDM from Research to Practice	DK
I R	Michael Jackson		GB
+ I R	Laszlo Belady	Software Engineering Institutes: Places for Co-operation	USA
I R	Fred Brooks Wlad Turski		USA PL
Panel 1	D. Barstow D. Stanley R. Jacquart Gerhard Goos	Software Engineering and Knowledge Engineering Which needs the Other More?	USA GB F FRG
Panel 2	H. Lycklama Thompson/Kernighan (B. Pyke ...	UNIX TM and its Standardisation	USA USA USA) FRG
Panel 3	Niklaus Wirth W. Joy Najah Naffah Herman Maurer	The Workstation Approach	CH USA F A

TM: UNIX is a trademark of BELL...

8.4 Computer Engineering

Prof. Dr. Ryoichi Mori
Institute of Information Sciences and Electronics
Tsukuba University
Ibarakiken, 305 Japan
Telex: 3652580 untuku j

Computer Engineering is concerned with the design, development techniques and methods for hardware systems. It is also concerned with current limitations, possibilities and expectations of the newest hardware technologies.

Items of interest include:

- Dataflow and high level language machines
- Supercomputer architectures and machine organisations (eg. innovative pipelining)
- VLSI and ultra high-speed integrated circuits: technology and design problems, including systolic arrays.
- Secure Systems
- Input/output media: graphics, voices/sound and tactile terminals
- Innovative microprocessors
- Computer communication devices and peripheral chips
- Standardisation in operating system, bus and I/O processors
- Architectures for embedded applications

Only such presentations will be sought which are of broad interest also to other than hardware engineers.

	TYPE	NAME	TOPIC	COUNTRY
?	I	John Gurd	Data Flow	GB
+	R	Hisashi Horikoshi	Array Processor	J
+	I	Ken-ichi Miura	Super Computers	J
	R			USA
+	I	Iann M. Barron	Occam - Transputer	GB
?	R	David A. Patterson	RISC	USA
	I	A. V. Kalyaev	Multi-Micro Processor Systems	SU
	R			
+	Panel 1	Lynn Ann Conway	VLSI	USA
?		Takuo Sugano		J
+		Roy L. Russo		USA
+		Roger van Overstraeten		B
+	Panel 2	Hisashi Kobayashi	Performance Evaluation	J
+		Kenneth C. Sevcik		CND
+		Domenico Ferrari		USA
+		Paul J. Kuehn		FRG
	Panel 3	. Aspinall		

8.5 Distributed Systems

Prof. A. Danthine
Systemes et Automatique
Inst. d'électricité Montefiore B28
Universite de Liège au Sart Tilman
B-4000 Liège, Belgium

Telephone: ++32-41-562691
Telex: 41797 saunlg b

Engineering of distributed systems includes the study of and the experience with co-operating systems based on local area networks (LANs) as well as long-haul networks, including satellite-based systems.

The success of local networks and of professional personal computers together with the widespread acceptance of the concept of Open System Interconnection (OSI) essentially contributes to make Distributed Systems a reality in the office, the factory and the educational environment. Post and Telecommunication projects and standards, such as Integrated Service Data Networks (ISDN) and the IEEE X400 series, are adding new dimensions to developments for the future.

Items for which presentation are sought include:

- The interplay between computer system design and the services offered by Post and Telecommunications Administration and other public carriers
- Case studies about the application of specification and verification methods
- Architectural models of Distributed Systems
- Network Architectures versus "Standardised" Operating Systems
- Corporate Systems
- The Message Handling System (MHS, X400 series) as a general communication system
- Technical Aspects of Distributed Systems Architectures, including Office Automation Systems

Presentations will stress the importance of applying proper engineering techniques in the specification, verification and dimensioning of such systems in order to achieve proper technical integration in specific applications such as integrated computing services, command and control systems, and office automation.

	TYPE	NAME	TOPIC	COUNTRY
+	I R	Chriss A. Visser	Standardisation of Formal Description Techniques for Communication Protocols	NL
+	I R	Eckhart Raubold Shuji Tomita	ISDN and X25	FRG J
+	I R	Jospeh Pittaloup Ronald Uhlig	The Message Handling System (MHS, X400 Series)	CH USA
+	I R	Fred Schneider Brian Randall	Fault Tolerant Distributed Systems	USA GB
+	Panel 1	Louis Pouzin Dave Twyer Otto Spaniol	PABX and LAN (Local Area Networks)	F USA FRG
+	Panel 2	Gerard Le Lann John M. Meyer Dirk Heger M. Tokoro	Which LAN in the Factory ?	F USA FRG J
+	Panel 3	Daniel Menasce Hubert Zimmerman	OSI and UNIX	BR F
+	Panel 4	I. Cunningham Vint Cerf Jacob Palme S. Ramani	Electronic Mail and The Paper Society	CND USA S IND

8.6 Information Systems

Prof. Dr. Antonio D. Furtado
Pontificia Universidade Catolica do Rio de Janeiro
Departamento de Informática
Rua Marques de Sao Vicente 225
CEP, 22453 Rio de Janeiro
Brasil

Telephone: ++55-21-2744449
Telex: 021-31048 puc br

This area is concerned with the creation, use and maintenance of information systems in general.

Organisations show a growing need for information to perform all kinds of tasks, ranging from routine execution to decision making. Certain applications may require specific solutions. This is a source of motivation for research in this area, and for interaction with other areas. Examples include distributed, personal, engineering, temporal, and inferential data bases, as well as office automation and decision support systems.

Items for presentation include:

- Analysis and design of Information Systems
- Theories and models for Information, Data and Functions
- Office Systems Science
- Education and training in Information Systems
- Data base technology: hardware and software
- Data administration

There has been considerable technical progress in the area, yet the interaction between research and practice is far from satisfactory. Advanced techniques and methods are not widely used or even known in many organisations throughout the world. Research workers often ignore what are the real problems faced by practitioners.

Accordingly, new results will be presented whenever possible in the context of the problems they aim to solve and will be compared with other related efforts. Tutorials and discussions will give ample opportunity for critical evaluation of the state of the art and identification of useful lines of future research.

	TYPE	NAME	TOPIC	COUNTRY
+	I	<i>J. D. Grimson</i>	Guidelines for Data	IRL
+	R	<i>A. Solvberg</i>	Administration	N
+	I	<i>S. Cari</i>	Requirements Collection	I
+	R	<i>E. Mumford</i>	and Analysis Methodologies	GB
+	I	<i>Peter Lockemann</i>	Software Tools for Infor-	FRG
+	R	<i>Elld Knuth</i>	mation Systems Design	H
+	I	<i>C. C. Gotlieb</i>	Information Systems in	CND
+	R	<i>G. Bracchi</i>	the Small	I
+	I	<i>David Hsiao</i>	Efficient Very Large	USA
	R	<i>F. Bancilhorn</i>	Databases: Hardware and	F
			Software Solutions	

+	Panel 1	<i>Alfonso Cardenas</i> <i>Alain Pirotte</i> <i>Michael Stonebraker</i> <i>I. McDonald</i>	Experience with the Relational Model	USA B USA GB
+	Panel 2	<i>O. Barros</i> <i>Erich Neuhold</i> <i>R. Hirschmain</i> <i>E. Altmann</i>	Education and Training for Information Systems	CHILE A GB FRG
+	Panel 3	<i>A. Sernadas</i> <i>L. Kerschberg</i> <i>P. Palazzi</i> <i>Yahiko Kambayashi</i>	Future Information Systems	P USA I J
	Panel 4		Decision Support Systems	

8.7 Artificial Intelligence

Dr. Hervé Gallaire
Director
European Computer-Industry Research Centre GmbH
Arabellastrasse 17
D-8000 München 81
Federal Republic of Germany
Telephone: ++49-89-92699100
Telex: 5216910 ecrc d

Over the last decade, computing has moved from data processing to information processing. This decade shows a similar move from information processing to knowledge processing, where knowledge is obtained by summarising or generalising information. Thus knowledge is made of facts and of general rules which must be exploited according to certain methods in order to be used properly. Artificial Intelligence is precisely concerned with closing gaps in our understanding of these fields and in exploiting knowledge to solve real problems.

Preferred topics for presentation include:

- Knowledge Representation Techniques
- Reasoning Methods
- Learning Techniques
- Techniques, Tools and Environments for AI development.
- Major areas of application of AI:
 - Natural Language
 - Interface
 - Vision
 - Expert Systems
 - Knowledge Bases
 - Office Systems

Artificial Intelligence has gained worldwide interest in the last few years both on the academic side and the industrial side: IFIP Congress '86 is the first IFIP World Congress to deal in depth with AI.

Presentations are sought which will emphasize the practical state of the art in the major application fields, which will explain what is the right environment for AI development and how to reach it in your company, and will investigate prospective topics that are critical to further progress of the field.

	TYPE	NAME	TOPIC	COUNTRY
+	I	G. Huet	AI and Programming	F
+	R	K. Furukawa	Techniques	J
+	I	R. Reiter	Knowledge	CND
+	R	J. Schmidt	Bases	FRG
+	I	J. McDermott	Expert Systems:	USA
+	R	R. Van de Riet	Hard Problems	NL
+	I	J. Darlington	Parallelism in AI	GB
+	R	Takeuchi	Languages	J
+	I	R. Schank	Natural Language	USA
?	R	J. F. Nilsson		DK
+	Panel 1	I. Kodratoff	Learning Techniques	F
+		S. Ohlsson		S
+		D. Lenat		USA
+	Panel 2	L. Aiello	Reasoning Techniques	I
+		P. Raulfs		FRG
+		D. A. Pospelov		SU
		K. Forbus		USA
+	Panel 3	C. Mazars	Computer Aided Design	F
+		E. Lehman	and AI	FRG
+		T. Uehare		J
		J. Tenenbaum		USA
+	Panel 4	W. Teather	How to start NOW in AI	GB
+		F. Manucci		I
+		N. Vince		GB
		P. Koves		H

8.8 Computer Integrated Manufacturing

Dr. J. Vliststra
A.T. & T. en Philips Telecommunicatie
P.O.Box 1168
NL-1200 BD Hilversum
The Netherlands

Telephone: ++31-41-562691
Telex: 43894 attph nl

Computer Integrated Manufacture (CIM) is becoming increasingly important and drastically changes the structure and appearance of design laboratories, engineering departments and factory floors.

Presentations are sought which describe how CIM integrates computer aided activities in

- Design
- Engineering
- Drafting
- Processing Planning
- Testing
- Logistics
- Manufacture and
- Material Forwarding

by applying the methods and techniques described in the other areas.

In particular we seek contributions which addresses such design and implementation problems of CIM and its constituent computer-aided activities that are of general interest and applicability and which will emphasise cross-disciplinary techniques and methods, and on the wider consequences of CIM as seen in the context of "Informatics in a Developing World".

	TYPE	NAME	TOPIC	COUNTRY
+	I	G. Halevi	Computer Integrated	IL
+	R	M. Tomljanovich	Manufacturing and	I
+	I	A. Rolstadts	Production Management	N
+	R	G. Doumaingts	Systems	F
+	I	D. Kochan	CIM	GDR
+	R	J. P. Crestin		F
+	I	H. Yoshikawa	Theoretical Approaches	J
+	R	J. Encarnacao	in Computer Aided Design (CAD)	FRG
+	I	C. Kuo	CAD Applications	GB
+	R	S. P. Mudur		IND
+	Panel 1	J. Vliststra T. J. Williams H. Yoshikawa A. Rolstadts	Controversial Issues in CIM (/CAD/CAM/CAE/...)	NL USA J N

8.9 New Informatics Applications

Prof. Antony I. Wasserman
Medical Information Science
University of California at San Francisco
San Francisco
California 94143
USA

Telephone: ++1-415-666-2951
Telex: 184 967 ims sfo ide

The 'Promise of Informatics' is to provide applications that can entertain us, relieve us from repetitive, boring, or physically tiring work, or augment our mental capabilities. Advances in information technology continue to make new applications practical and economical. Furthermore, advances in user interfaces to computer systems support these innovative applications by making them easier to learn and to use.

IFIP Congress '86 aims to present the most exciting new uses of computers. Contributions are sought on such topics as:

- Innovative aggregations of office system components
- Electronic distribution of software
- Financial applications, eg. Electronic Funds Transfer
- Personal productivity aids
- Computer music and games

Case studies of such applications, as well as related topics of user interaction with computers and social implications of these applications, should also be reported.

<u>TYPE</u>	<u>NAME</u>	<u>TOPIC</u>	<u>COUNTRY</u>
I R	<i>W. Buxton</i> <i>D. Novachev</i>	Future Interface Management Systems	CND BG
I R	<i>A. Goldberg</i>	Electronic Support for Programmers	USA
I R	<i>Ph. Penny</i>	Technical Document Storage and Retrieval	F
I R	<i>J. H. Morris</i>	Workstations for Stu- dents: The Carnegie-Mellon University Information Tech- nology Project	USA
I R	<i>T. Moran</i>	Cognitive Psychology: Issues in Man/Computer Interaction.	USA

8.10 Informatics in A Developing World.

Prof. R. Narasimhan
Tata Institute of Fundamental Research
Homi Bhabha Road, Colaba
Bombay 400 005
India

Telephone: (22) 21911
Telex: 113009 tifr in

Information technology is rapidly becoming a pervasive technology. The growing fusion of computing and communication, on the one side, and the ever increasing levels of integration of the informatics hardware, on the other side, makes this technology simultaneously more powerful and cheaper day by day. While the industrially advanced countries are concerned about the impact that this technology is likely to have on their life-styles, the industrially less developed countries see information technology as an opportunity for coming to grips with some of their most basic developmental problems. For both groups of countries this technology raises many issues that are of critical importance to planners and policy makers.

Some of the issues this congress will try to analyse and discuss, and for which contributions are sought include:

- Strategies for technological self-reliance
- Qualified manpower creation
- Identification of innovative applications to socio-economic development.
- Steps to make this technology more easily accessible and acceptable to everyone

Contributions reporting on case-studies of innovative field level implementations of socio-economic importance are especially welcome.

TYPE	NAME	TOPIC	COUNTRY
I R	D. M. Lamberton Wee Tee Lim	The Informatics Sector in the Developing Countries	AUS SING
I R	B. Goranson El Sayed Noor	Information Technology Policy Issues in Developing Countries	S ET
I R	H. R. Norman A. Guzman	Innovative Applications in Support of Developing Countries	USA MEX
Panel 1	A. Craemer-Kachru I. Josefsson C. Soltan Y. Okada	Women, Work and Computerisation	FRG S VENEZ J
Panel 2	A. C. Lagman P. P. Gupta	Can Developing Countries Compete in Information Technology?	PHIL IND
Panel 3	Y. Paker N. Harfouch M. Najim C. J. Potter	Manpower in Informatics in Developing Countries	GB SYR MA NZ
Panel 4	...	Non-Latin and Non-Alphabetic Scripts	J

9 INSTRUCTION FOR AUTHORS

5 (five) clearly legible copies of papers submitted for consideration must be sent directly to the chairman of the most appropriate area. Deadline for submission is NOVEMBER 1st 1985. That is, papers must reach area chairmen before or on that date.

Potential authors must carefully adhere to the objectives of the congress as a whole, and the area in particular.

All submitted papers will be carefully reviewed according to the criteria spelled out in the previous sections -- for their significance, originality, clarity of expression, and for their potential ability to enrich *IFIP Congress '86* participants.

Papers must be written and presented in English -- there can be absolutely no exceptions from this rule. It is mandatory that presenters have no problem in delivering a convincing argument in English.

Paper size must be no more than 4000 words, and must be typed, clearly, double-spaced, and be on one side only of up to 20 sheets, approximately 297 by 210 mm in size (ie. A4, or US comparable size).

Any required approvals for presentation or publication must be obtained by authors prior to submission of their papers, and it must clearly be indicated whether such an approval was necessary, and if so, granted.

Each paper must be securely stapled (not clipped) together in the upper left hand corner and should consist of the following items in the order shown:

1. Sheet 1: Cover page containing:

- 1 Number and name of area that will best fit the paper, with exactly one such being specified -- in upper right hand corner; then the
- 2 Paper title, top, centered; then
- 3 Name, full address, and affiliation of all authors,
- 4 Underlining of principal (and exactly one) author with whom the *IFIP Congress '86* Programme Committee will correspond; then
- 5 the following statement signed by all authors:

"Neither this paper nor any version close to it has been or is being offered elsewhere for publication, and, if accepted, will be personally presented at the 10th World Computer Congress by the author, or one of the co-authors.", and finally a

- 6 1-200 word abstract, or summary.

3. Text of the paper on subsequent pages (sheet 2 onwards)
4. All illustrations with titles, numbered consecutively, and cross-referenced to the text
5. Appropriate literature references in a suitable form, with a reference (last) sheet listing only actually referenced and published, available literature.

Each page must clearly show the name of main author in the upper left hand corner, and its page number, starting from page 1, in the upper right hand corner.

It is a good idea to jointly prepare the oral presentation to go with your written contribution. Usually such a presentation should be supported by 6-8 (at most 10) overhead projector foil/transparencies (OHs). Each OH should have character size of no less than 7 mm in height to insure auditorium legibility, and otherwise stay within a frame of A4 size (210 mm by 271 mm). Potential authors are urged to also submit 5 copies of legible, nicely drawn, full size OHs, stapled to individual manuscripts. Doing so may enhance the chances of your presentation being accepted. The *IFIP Congress '86* programme committee reserves the right to edit OHs for presentation at the congress.

Notice of acceptance or rejection will be mailed to the main (cover page underlined) author by March 7th 1986.

Submitted material, whether accepted or not, will not be returned to authors.

Publication Procedure

Authors of accepted papers will be required to retype their paper in a form suitable for final photo-reproduction for proceedings to be available at the congress. Detailed instructions, including typing mats will be sent to main author, from the North-Holland Publishing Co., to reach the author by late March 1986. Authors must provide the proceedings editor:

Hans-Jürgen Kugler
University of Dublin, Trinity College,
Department of Computer Science
Dublin 2, Ireland

Telex: 25442 tcd ei, Telephone: + 353-1-772941

with the final retyped, full paper, before April 15, 1986.

The editor cannot overemphasize the importance of authors of potentially acceptable papers already NOW preparing themselves for keeping within the above, tight schedules.

The program committee reserves the right to request changes to accepted papers, and to make minor editorial changes to final, retyped papers. The program committee also reserves the right to refuse final presentation of an otherwise previously accepted paper in the case that paper has not been duly retyped and resubmitted to the editor.

10 ===== PARTICIPANT REGISTRATION

The registration fee for participants is:

Registrations received before March 1st 1986:	USD
Registrations received before August 1st 1986:	USD
Conference registration:	USD

The registration fee for main author of accepted, submitted papers is, however, only 200\$

Please plan NOW for the funding of your participation. And please plan NOW for obtaining travel permits and visa - where applicable.

Registration notice and fees to be sent as follows:

11 ===== TRAVEL AND ACCOMODATION

to be furnished by OC

12 ===== SPECIAL EXHIBITS

In connection with the IFIP Congress '86 congress there is being arranged the following special exhibitions:

1. A Book and Instrument Exhibition in the world famous Long Room of Trinity College Library, home of the famous Book of Kells.

This exhibition will feature the development of calculation from the time of St.Brendan the Navigator, who is believed to have sailed from Ireland to North America, to Percy Ludgate, who designed an analytical engine in Dublin in 1909, a machine quite different in concept from Charles Babbage's. Many of the exhibits are from the Library of Trinity College. The highlights of the exhibition will include a display of the great 16th and 17th century mathematical tables, several Irish slide rules, and a section on arithmetic as practiced in Ireland in the 18th and 19th centuries. Some of the works of Charles Babbage and George Boole, who was the first professor of Mathematics in University College, Cork, will also be on display.

2. A Computer Arts Exhibition in the Douglas Hyde Gallery, of the very building in which the congress will be held.

The gallery is most suitable for hanging images, etc. It is also intended to have a continuous display of slides. It will also be possible for exhibitors to provide their own equipment to display their art. Personal computers with colour graphics monitors will be provided.

Computer Artists are invited to submit entries in any form, and before 1st March 1986. Full details must be provided of any special requirements. In the case where contributors are providing their own display equipment a description, especially its physical size should be submitted along with pictures of their art.

Computer Art will be interpreted very broadly and the selection of items for the exhibition will be made by a panel selected by the Board of the Douglas Hyde Gallery. Artists will be notified by the 4th of April, 1986. It is intended to produce a Catalogue for the exhibition and the IFIP Organising Committee reserve the right to reproduce copies of selected items in the Catalogue.

Inquiries concerning the above exhibits should be directed to:

Professor John G. Byrne
University of Dublin, Trinity College
Department of Computer Science
Dublin 2, Ireland

Telephone: ++353-1-772941
Telex: 25442 tcd ei

TO: IFIP '86 PC and OC Chm.: Dudley Dolan

FROM: Dines Bjørner

DATE: 2. April 1985

SUBJ.: A Proposal for Pre-Congress Courses

I have previously brought up the idea of our arranging a number (3-5) pre-congress courses. With a major hurdle now being passed (the final call and preliminary programme, with its 81 personal letters of invitations signed and sent, etc.) it is now time to actively pursue this possibility.

Here are some highlights of the proposal:

1. 3-5 courses, 3-5 days duration, 50-200 course participants per course, week of 25-29 august 1986, in Dublin, at Trinity College, using the same smart lecture halls as IFIP Congress '86 for their lectures.
2. In eg.the folowing areas:

	Area:	TC/WG:
A: Programming Science and Methodology	2	2
B: VLSI	4	10.5
C: Distributed Systems	5	6
D: Information Systems	6	8
E: Artificial Intelligence	7	?
3. Organized eg. jointly between appropriate area chairmen and "corresponding" IFIP TCs/WGs.
4. Featuring 3-5 course lecturers, 4 lectures at 1½ hour per day, same time slots as for the IFIP Congress '86: 9-10:30, 11:00-12:30, 14:00-15:30, 16:00-17:30.
5. Aimed at full-paying industry people (persons who also pay full to attend IFIP Congress '86) directing state-of-the-art survey, tutorial, etc. presentations at them, preparing them for IFIP Congress '86, enticing them to go home and study more, to hire better qualified people, to apply latest techniques from research, whatever else ...
6. Will allow TCs/WGs to play a direct rôle in connection with the IFIP Congress.
7. You, the appropriate area chairmen, and the IFIP TCs and WGs will quickly plan this, should you find it worthwhile, and lecturers should come "exclusively" from memberships of appropriate WGs.
8. Lecturers prepare, between October 1985 and March 1986 lecture notes, correspondiong to 4.1½ hours each, an camera-ready mats to go directly to eg. Springer Verlag, for 3-5 State-of-the-Art volumes in the Springer/IFIP (semi-dormant, ½born) series.

More details folows:

Subj.: Pre-Congress (IFIP '86) Courses

2/3

Here is a likely time-table:

- i. I need your positive (/negative) accept by May 1st 1985 at the latest.
- ii. If positive, then I need a course proposal, see page 3, with session-by-session topics and tentatively committed lecturers by June 1st 1985.
- iii. I then prepare a report for the IFIP Council and GA (General Assembly) to be mailed, before July 1st, 1985, for their consideration, in good time before their meeting, 1st week of September 1985.
- iv. If IFIP Council/GA approves, and only then, can we give a green light, go-ahead, to course organizers and lecturers. This can be given by telex to you from me, from Japan, around September 6, 1985.
- v. Lecturers go-ahead, mid-september 1985, will result in manuscripts to organizer/editor before March 15, 1986.
- vi. Organizer/editor prepares foreword, contents, index, etc., and checks literature references, etc.
- vii. Camera-ready ms. goes to Springer Verlag before April 15, 1986.
- viii. Springer delivers 3-5 books for courses by August 15, 1986, in Dublin.
- ix. Books will also be on display and sale at the IFIP Congress '86.

The organisation committee, through Dudley Dolan, tentatively agrees with the general idea, not necessarily the above points which Dudley has'nt seen this detailed, and:

- A: OC will post, worldwide, targeted for industry-people, a brochure on IFIP Congress '86 and the Pre-Congress Course-Programme by November 1st 1985. It will contain a special registration kit for a combined (only) Course + Congress package.
- B: Deadline for registration is March 1st, 1986. If a course, one, more, or all, gets too few registrants, I believe lower than 50, then course(s) has to be cancelled. Bad luck!
- C: Course fee, of 100 US \$ per day of course, is tuned to minimum expenses, and must cover:
 - c1: administration costs: -- approx. 1000 \$ / course
 - c2: lecturers expenses: travel and 4-7 days of living, hotel and meals + free registration (ie. 400 US \$ to OC) at IFIP Congress '86 -- approx. 3000 \$ / lecturer

Subj.: Pre-Congress (IFIP '86) Courses

3/3

c3: lecture notes: 35 \$ / participant

c4: Refreshments in course breaks, and lunch: 20 \$ / day / participant

D: Budget and Finances:With 50 participants income for a 3 day (5 day) course is: 15.000 (25.000) US \$.Expenses are: 1000 + 3.3000 (5.3000) + 50.35 + 50.20.3 (50.20.5) = approx. 14.750 (22.750) \$

Hence I consider a minimum of 50 to be break-even, some expenses set a bit high.

For every 10 more participants incremental income is: 3000 (5000), and incremental expenses are: 10.(35+20.3) (resp. 10.(35+20.5)) ie. 1000 (1350) \$.

I propose profits go to IFIP treasury.

Finally there is the semantics of it all: the contents of courses. Here is my outline, and Ugo Montanari, can, of course completely redo it, of:

A "Programming Science and Methodology" course:

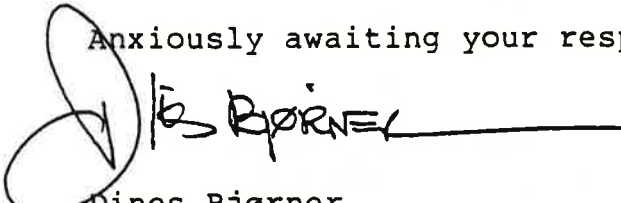
- | | |
|----------------------------|-------|
| 1. Denotational Semantics | Day 1 |
| 2. Algebraic Semantics | Day 2 |
| 3. Operational Semantics | Day 3 |
| 4. Inferential Programming | Day 4 |
| 5. Proof / Rewrite Systems | Day 5 |

(5 days, 5 lecturers, 500 page lecture notes)

I am certain similar courses can be outlined for the other areas.

With the prestige of IFIP, with our access to the best people in the best WGs, and with the connection to the IFIP Congress '86, my guesstimate is we'll have a success on our hand.

Anxiously awaiting your response:



Dines Bjørner
2. April 1985

Post-script: Surplus high-quality papers for the real IFIP Congress '86 for areas for which there is a course being prepared, whether fully booked or not, could go into the State-of-the-Art volume being readied at about the same time!

Just a thought.



Dines Bjørner



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : 1985-04-12

Address reply to :

DEPE International

Box 12026

S-220 12 Lund

Sweden

André Danthine
Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B-4000 Liège
Belgique

Dear André,

Thank you for your letter confirming TC6-meeting in Brazil. However, I have no information regarding TELEMATICA 85 or local arrangements. If you have any detail information, I will very gratefull. I am sending a letter to Liane as well, but it may take time.

Please, pass me any information regarding function and activities of APC. If there is not too much travelling involved, I am interested as TC 6 representative to APC.

*New reorganisation
of APC. No more
representative.*

I am planning a two days State of Arts Conference to be held in Malmö, Sweden on 21-22 April 1986. I do not think that I will need any financial support but the conference can still be one of the TC6 activities. It will also be possible to held a TC6 meeting in connection with the conference, since I will be inviting TC 6 members as speakers. Can you guide me in this matter?

Sincerely Yours,

Dipak Khakhār, TC6 member

President : K. Ando (Japan)
Past-President : P.A. Bobillier (Switzerland)

Vice-Presid
Vice-Presid
Vice-Presid

MD-65

Rep. of Germany
(A.)
rthy (Australia)

Secretary : J. Fourot (France)
Treasurer : O.M. Dalton (Ireland)

CONFERENCE
ON
DATA COMMUNICATION - STATE OF ARTS
ORGANIZED BY

SVENSKA DATAFÖRENINGEN, SDF
SVENSKA SAMFUNDET FÖR INFORMATIONSBEHANDLING, SSI
IFIP-TC6

21-22 April 1986, Malmö - SWEDEN

Tentative program:

Open Systems Interconnection
Layered Architecture
High & Low level protocols.

Distributed Systems
Implementation
Architecture & Organization

Local Area Networks
Architecture & Standards
Access Protocols
Interconnection LAN -WAN
Applications

Sattelite Systems
Design & Facilities
Interconnection

-Message Systems
Standards & Architecture
Mailbox
Document interchange
Voice messaging

ISDN
Architecture & Applications

Videotex

Future Technology

The aim of the conference is to give introduction to different areas of Data Communication. Most of the presentation will be of tutorial type. Most of the papers will be invited from TC 6 members or working groups members. However, some Swedish speakers will also be invited to give presentation.

Invitation to participate will be distributed in Sweden, Denmark, Norway and Finland.

Dipak Khakhar
1985-04-16



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date :

Address reply to : Dr. H. Rudin
 IBM Research Laboratory
 Säumerstrasse 4
 8803 Rüschlikon
 Switzerland

Dr. Behçet Sarikaya
 Département de Mathématiques
 et d'Informatique
 Faculté des Sciences
 Université de Sherbrooke
 Sherbrooke, PQ, Canada
 J1K 2R1

April 19, 1985

Dear Dr. Sarikaya,

With this letter I would like to recall our recent telephone conversation.

In the name of IFIP WG6.1 Subgroup A I would like to accept your offer to organize the VIth IFIP WG6.1 Workshop on Protocol Specification, Testing and Verification together with Gregor Bochmann in the vicinity of Montréal next summer. (1986)

I understand that you will attend the Toulouse Workshop and I look forward to meeting you there. It is important that we have a meeting together with Michel Diaz, the Chairman of this year's workshop.

Incidentally, Michel has just had a program committee meeting at which the 57 submitted papers were culled to the 38 papers which are being accepted for presentation at the Workshop and publication in the Proceedings. This is a first instance of performing what I believe is a necessary step for future meetings.

Sincerely,

H. Rudin
 Chairman IFIP WG6.1 Subgroup A

cc: G. Bochmann
 A. Danthine
 M. Diaz
 C. Sunshine

IFIP 25TH ANNIVERSARY - 1985



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : May 17, 1985

Address reply to : A. DANTHINE

IF85-22

Harry Rudin
Chairman of WG 6.1/A
IBM Res. Lab.
Saumerstrasse 4
CH - 8803 Ruschlikon
Switzerland

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

Telex 41797 saunlg b

Dear Harry,

I want to confirm that the University of Liège would be delighted to host in Liège, in Spring 1987, the "Protocol Specification, Testing and Verification VII" workshop.

1987 is the Europe turn and as Belgium did not have yet the opportunity to host a major TC 6 event, I hope that my proposal will be taken into consideration.

Best Regards,

A. DANTHINE
TC 6 Chairman

c.c. C. Sunshine
H. Le Roux



united nations educational, scientific and cultural organization
 organisation des nations unies pour l'éducation, la science et la culture

7, place de Fontenoy, 75700 PARIS

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 télégrammes : Unesco Paris
 télex : 204461 Paris

référence : SC/SER/85-1205

11 April 1985

Dear Mr. Danthine,

In view of the importance of informatics for development and the disparities which have surfaced with regards to equipment and human resources between the industrialised and developing countries, Unesco anticipates launching an Intergovernmental Informatics Programme (IIP). After an analysis of the global situation of informatics in the world, the Interim Intergovernmental Committee, elected at the 22nd session of the General Conference, determined certain targets that the Programme should attain. The recommendations of the Committee, in favour of the establishment of the IIP, will be submitted to the 23rd General Conference of Unesco for consideration.

To achieve these objectives, Unesco intends collaborating with the principle governmental and non-governmental organisations specialised in the relevant fields. Among these organisations IFIP would be a particularly valuable partner, in view of its experience and the qualities of its members. The Technical Committee, of which you are Chairman, could provide us with an extremely valuable collaboration both in the studies envisaged and the conferences, courses and seminars to be organised.

I should like to take this opportunity to send you the Working Document which served as the basis for the Interim Intergovernmental Committee meeting as well as the Final Report and should be grateful if you would indicate the activities which, in your opinion, should be undertaken and which fall within the programme of your Technical Committee. This would enable us, within the IFIP-Unesco Coordination Committee, to develop a cooperative framework to the advantage of both Organisations.

→ Perhaps you could also send us a list of competent specialists from industrialised and developing countries who, to your knowledge, would be able to take part in the studies and other activities which would be undertaken by Unesco within the framework of the IIP.

Thanking you very much for your cooperation, I remain,

Yours sincerely,

Y. Mentalecheta
 Chief, Informatics Section
 Division of Scientific Research
 and Higher Education

Mr. A. DANTHINE
 Système et Automatique
 Institut d'Electricité Montefiore, B 28
 Université de Liège au Sart Tilman
 B-4000 LIEGE
 Belgique

MD-69



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : May 17, 1985

Address reply to : A. DANTHINE

Systèmes et Automatique
Institut d'Electricité
Montefiore, B 28
Université de Liège
au Sart Tilman
B - 4000 Liège (Belgique)

IF 85 - 20

Y. Mentalecheta
Chief, Informatics Section
Division of Scientific Research
and Higher Education
UNESCO
Place de Fontenoy 7
F - 75700 PARIS FRANCE

Your Reference : SC/SER/85-1205

Dear Mr. Mentalecheta,

Thank you for your letter of April 11 about the possible involvement of TC 6 members in the IIP.

This will be discussed at our next TC 6 meeting to be held in Porto Alegre at the end of this month.

I will write to you after this meeting.

Sincerely yours,

A. DANTHINE

c.c. NARASHIMAN
FOUROT

MD-70

46-41797

may 10 85/ref.no.600091

attention: prof danthine

we have received the following telex from unido through ifipsec in geneva. prof narasimhan icid chairman suggested to contact you as to whether you would be interested in sending a latinamerican member of tc6 to this meeting in caracas.

kindly telex-advise me of your thoughts as soon as possible so that i can reply to unido accordingly.

as stated in the unido telex they cannot provide financial support to the attendee we have to take this into our consideration.

quote

unido organizing in cooperation with sela and eclac a regional meeting for the initiation of a regional network for microelectronics in the eclac region (remlac) at caracas 3 to 7 june 1985. background to meeting as follows: unido/ecla expert group meeting on implication of microelectornics for the ecla region held in june 1982 in mexico city recommended a latin american programme of cooperation. following this unido staff and experts have had discussions with policy makers in several latin american countries. experts who visited venezuela in march 1984 and those who visited four latin american countries in march 1985 and discussed the matter with policy makers have recommended the initiation of a regional network for which interest exists in sevrals countries. meeting is intended to initiate network on a pilot basis and work out a medium term plan of network on a pilot basis and work out a medium term plan of network activities. network envisaged to have one national node per country and also regional centres of excellence. agenda will include discussion of structure of the network, programme for the network and some initial network activities relating to informatics policies regional cooperation in r and d and interrelation between microelectornics and telecommunications. some ten countries are being invited to send senior country prerepresentatives who should be in a position to present and reflect the view of their government. they are also expected to announce interest of their government in the participation of the network and if possible indicate a national node for the network. they are also expected to prepare a country paper in spanish or english reflecting national policies, state of the art and views on regional cooperation including what the country expects from network and what it can contribute. we would like to invite a representative of your organization to participate in the meeting as an observer. due to financial constraints unido is not in a position to bear expenditure connected with travel and accommodation during the conference. thanks and regards.
(venkataraman unido vienna)

unquote

thank you and best regards. k ando (our telex: 2224361 ft tor j)

2019 07202224361+ 2096
2224361ft tor j
from a. danthine, to 6 chairman
to ando
may 17, 1985

i asked liane tarouco, to 6 representative to brazil to try
to attempt. will keep you informed of the outcome.
best regards
a. danthine
41797 saunlg b3
2224361ft tor j
0062

1019 07202224361+ 2072
2224361ft tor j.
from a. danthine
to ando
please read ''attend'' instead of 'attempt'.
regards
an danthine@
2224361ft tor j
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0037

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March 1985

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B-4000 LIEGE
Belgium

Direct line (020) 5803..254

Amsterdam, 4th April, 1985

Dear Professor Danthine,

Re: "Local Computer Networks," Ravasio et al

As promised during our conversation in Munich, I have checked up on the situation concerning the above volume.

According to our records, the order to reprint was given on 4th July, 1984 and the book appeared on 17th October. Only 17 copies sold was recorded for 1984, but hopefully sales will be higher this year. A total of 640 copies were reprinted.

With kind regards,

Stephanie Smit
Administrative Editor

SS/cr

INFORMATION &
BUSINESS
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a branch of

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MD-75



INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Dr. Jack L. Rosenfeld
IFIP Newsletter Editor

26 April 1985

Mr. Dipak Khakhar
DEPE International
Box 12026
S-220 12 Lund
SWEDEN

Dear Mr. Khakhar:

I have received notice of your appointment as IFIP Newsletter correspondent. Welcome!

I trust that you will keep me notified of events--future or past--in TC 6 that are worth covering in the Newsletter. I would be especially delighted if you could write articles about activities in your TC.

Beyond that, any help you would be willing to give in the production of the Newsletter would be most gratefully accepted. Just let me know what you would like to do. Unfortunately, the best we can do in return is to print your name in the Newsletter.

The Newsletter is mailed to subscribers on the 22nd of February, May, August, and November. Articles must be COMPLETE two months earlier. (This long interval is due to the international nature of our production process.) That means I must have the raw material for the articles early in December, March, June, and September, to permit time for the final articles to be checked by you and others.

I thank you for your help, in advance.

Sincerely yours,

cc. ~~A.~~ Danthine

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COMPUTERS IN INDUSTRY

from design office to shop-floor: the work of IFIP's TC 5

by Kenneth Owen

Information processing for those whose job it is to process information can be a neat and tidy affair: the travel agent can make his airline reservations, the manager can use his spreadsheet package to manipulate his figures, the banker can transact his business electronically, and so on. But for those whose job is to make things, or to run industrial processes, information processing is a more difficult and untidy matter – more processes are involved, their integration is more difficult, and the computer hardware and software systems somehow have to come to terms with the « realware » of practical factory life.

Successful industrial computing systems can transform the business performance of manufacturing and process companies. These benefits have been demonstrated in large companies and are becoming progressively more relevant to smaller companies also as the cost of computing continues to fall. Computer aided design and computer aided manufacture have become familiar and fashionable as CAD and CAM, but there is more to industrial computing than CAD and CAM – and, indeed, there is more to CAD and CAM than is represented by today's state of the art in mechanical engineering.

Advancing the state of the art in various facets of computing is one of the aims of the International Federation for Information Processing (IFIP), a federation of national professional bodies. IFIP's technical work is organised by a number of Technical Committees, each of which devotes its professional work to specialised working groups. Technical Committee 5 (TC 5) is concerned with computer applications in industry, and in its strong emphasis on applications rather than research it differs from most other IFIP technical committees.

In its mode of working and its « end products », TC 5 conforms to the general IFIP pattern of workshops and working conferences of experts, open international conferences of wider appeal (often organised jointly with other bodies), and published conference proceedings. In two respects, however, it again differs

from the majority of TCs. First, because the subject of automation in industry is a highly fashionable and commercial one, the conference marketplace is already overcrowded. In this situation TC 5 aims at quality rather than quantity, with the major effort now concentrated on a triennial open « systems » conference which reviews the whole field. This event is the International Conference on Computer Applications in Production and Engineering (CAPE), the first of which was held in Amsterdam in 1983. CAPE '86 will be held in Copenhagen.

The second aspect of TC 5's activity that differs from the norm is that the committee is directly associated, with the North-Holland Publishing house, in editing and publishing a bi-monthly (previously quarterly) journal, *Computers in Industry*. This is published commercially by North-Holland; its content reflects the interests of TC 5 but covers the field as widely as possible.

ACHIEVEMENTS AND PROBLEMS

The broad field of computer applications in industry was reviewed in 1983 by Mr Jacob Vlietstra of the Netherlands on the occasion of CAPE '83. (At that time Mr Vlietstra was TC 5 chairman; after six years in that post he has since been succeeded by Professor Asbjorn Rolstadas of Norway). The broad picture to emerge was one of successful applications in certain areas, great potential as new techniques appear, and key problems in both technical and non-technical areas. Mr Vlietstra's assessment included the following points.

Within the broad areas of design and manufacture, constituent activities are potentially susceptible to computerisation. These embrace specification, design synthesis and analysis, design detailing and drafting, preparation of the product documentation (drawings, parts lists, etc), preparation of the manufacturing processes, preparation of the test and quality assurance process, manufacture and assembly, material resource

planning, production planning and production management, and product packing and shipping to warehouse. Feedback between many of these activities is important.

Much progress has been made over the past 30 years in automating these activities. In design, specification languages are being developed which will provide a unique definition of the product to be used as the reference specification. Advanced analysis and simulation programs are available; and detailing and drafting are highly efficient thanks to advanced algorithms and powerful interactive graphics. Artificial intelligence and pattern recognition techniques have led to reading devices which can interpret manually prepared engineering drawings, and production drawings are being automatically generated.

In manufacturing, also, similar trends are evident. Numerically controlled machines have been followed by the introduction of machining centres, flexible manufacturing systems and manufacturing cells with automated supervision. These will soon have advanced automated sensors, while robots are being introduced to assembly and finishing tasks.

Automatic transport and packing devices, electronically controlled assembly lines, automatic test equipment and extensive scheduling systems are available and in use. Data flow and factory control will be monitored by large computer systems, and data will be managed in hardware-oriented database machines; thus technical staff may store, retrieve and modify data instantly.

Much if not all of the information needed by the production departments will be created in the design phases. Design data will be smoothly transferred to manufacturing using local and wide area networks, and drawings and other human-readable documents will become less important. Expected intelligent workstations for designers, producers and managers will feature interactive graphics, data dictionaries, advanced editing facilities, voice recognition and speech analysis.

These various possibilities have been pioneered in industry by the larger companies. Smaller companies will follow as the benefits of computer-based systems – reduced lead times, higher quality products, flexibility in customising and cheaper products – become clear.

Though the technological opportunities are evident, they are accompanied by a number of serious problems – technical, organisational, social and cultural. On the technical side, a key problem is that virtually all the industrial programs and systems have been developed in isolation.

Specification languages, simulation programs, drawing systems, NC machine tool languages, production control systems and the like lack proper communications and standards. Substantial interface programs are needed in attempts to create integrated systems. In addition, data entry methods for the various parts of the design/manufacture complex exhibit different notations and language incompatibilities.

The basic solution to this immense problem lies in the definition of the data elements that constitute the product and its related design and manufacturing process. Integrated systems require standardised data elements. Standardisation is needed also in data-entry language notations. (Ironically, though there is an accepted set of standard symbols used in electrical drawings, the language description of the same symbols appears in hundreds of notations in the various CAD/CAM programs).

Another technical problem concerns back-up. As more and more functions are automated, care is needed on such questions as back-up, recovery, security and safety. If human actions and interventions are completely replaced by automation with no mechanism for manual fall-back, catastrophe may result in cases of system malfunction.

An organisational problem has emerged with the rise of new professions (and professionals) within the factory environment. Design offices are supported by CAD experts, production units have to try to communicate with CAM engineers, and production management is faced with an increasing dominance of computer-oriented logistics personnel. Other new professions include those of the database manager and data librarian. All these information-based new professions differ significantly from the traditional technical disciplines and, because « natural » lines of responsibility are disturbed, problems of communication result.

Social problems, also, arise as a result of the changing nature of the design and test process. Instead of communicating with colleagues in a continual iteration, individuals now sit at terminals and are paced by the high-speed processor. All too often the « human » part of the human/machine dialogue is ignored in the design of CAD/CAM systems.

In terms of national cultures, the new computer-based systems are creating problems in non-English-speaking countries because of their use of the English language. And, inevitably associated with the much-increased productivity of automated industrial systems is the familiar and serious problem of employment. Though the industries which produce computers, software, peripherals, robots and CAD/CAM systems will undoubtedly continue to grow and so provide new employment, it must be accepted that the number of new jobs will amount to only a fraction of the jobs that will be lost because of industrial automation.

THE ROLE OF TC 5

Against this background, Technical Committee 5 aims to promote the international exchange of information over the whole field of computer applications in industry. Its scope embraces control computers, computers in manufacturing, computer applications in design, simulation, computers for traffic control, problem-oriented languages, interactive graphics and other facets of the subject. In programming languages and in education respectively, TC 5 works closely with two other IFIP technical committees, TC 2 and TC 3.

The technical work of TC 5 is handled by six working groups. These cover :

- Computer aided design.
- Discrete manufacturing.
- Common and/or standardised hardware/software techniques.
- Maritime industries.
- Automation of production planning and control.
- Product specification and product documentation.

As IFIP's most applications-oriented technical committee, says Professor Rolstadas, TC 5 is firmly concerned with developments that will emerge in industry within a few years. « We are of course interested in research and future trends, but we are also very much interested in how research should be applied in the short term in industry. Our committee has a mix of both academic and industrial members. »

The subject of computer applications in industry is of wide general interest at the present time. Professor Rolstadas sees the high level of commercial conference activity in the field not as an embarrassment but as a strengthening factor for TC 5, in that the many conferences ensure that the practical problem areas are brought out into the open.

« Otherwise you could end up in pure academic research – which of course is interesting in itself. But you cannot speak about applications without bringing in the industrial view. »

Technologies such as computer aided design, computer aided manufacture, flexible manufacturing systems (FMS) and industrial robotics are being implemented rapidly in industry at present, the TC 5 chairman notes. The only barrier is that of finance. Competition in today's marketplace calls for a high degree of automation; « This is a snowball that has started rolling ».

An important part of TC 5's role, says Professor Rolstadas, is to make industry aware of the technology that is available, and show examples of how the technology can be used, so that industry can judge for itself what to invest in and apply. Equally important is to hear from industry where the perceived problems lie, so that appropriate research can be encouraged.

The specific interests of the various TC 5 working groups are noted later in this article. In reviewing the overall scene Professor Rolstadas is wary of attaching too much importance to the future impact of artificial intelligence (AI) techniques. He remembers the production management systems of the late 1960s; main-frame-based, they proved to be very large, expensive and difficult to develop. And they included attempts to automate much of the decision-making in production planning.

Those attempts were not successful, and led to a resurgence of systems based on human decision-making, drawing on computer aid for calculation and background data. Artificial intelligence, Professor Rolstadas suggests, is one way of trying to automate decisions. Will that lead back to the mistakes of the late 1960s ?

« The purpose of self-learning AI systems must be to make automated decisions. I look at it this way. AI is a very interesting and very promising technique that should be thoroughly evaluated. It is very advanced technology, it could be very powerful, but – somewhat like the nuclear bomb – it could be used for undesirable purposes. We need a discussion on how to apply it. »

The TC 5 chairman acknowledges the value of specialised AI techniques – as applied, for example, in the vision part of robotic systems. But he does not favour the use of expert systems as advisers. « That is very dangerous. When you're under stress it is easy to follow the computer's advice without checking it thoroughly. And many trivial decisions can act as a basis for other, more powerful decisions. If you can find the right balance, expert systems will be very useful; if not, they might prove very bad. »

Much of the current general interest in industrial computing relates to the manufacture of discrete products, and at the present time this emphasis is reflected in TC 5 activities. But Professor Rolstadas is aware that the committee must not neglect problems in the field of continuous processing.

In industrial applications generally, the TC 5 chairman points to two problem areas which merit high priority. First, the need to enable the many available systems to communicate with each other. Second, the need to integrate CAD and CAM systems.

THE WORKING GROUPS

Computer Aided Design is the theme addressed by WG 5.2, whose chairman, Dr Ketil Bo of Norway, includes expert systems as one of three significant topics for the future development of this field. The other two are human/computer interaction, and technically oriented databases. If the problems of these areas can be solved, he says, computer aided design will take a considerable step forward. Over the years WG 5.2 has worked consistently towards CAD « building blocks » for modular systems.

Human/computer interaction involves much more than the designer's workstation, although workstation ergonomics are certainly important. A knowledge of human cognitive and perceptual processes is also needed in order to find the best match between the computer and the person.

Technically oriented databases differ from databases designed for conventional economic and administrative systems, in that the users' requirements are less well known in advance. The database must hold the representation of the product model in a way which enables the many complicated relations to be extracted as required.

Expert systems pose similar problems of knowledge representation, as knowledge bases capture human design expertise and provide a powerful expansion of human/computer interaction in systems that are more human-like. Thus all three topics are interconnected. « Knowledge engineering in computer aided design » was the subject of a WG 5.2 working conference held in September 1984.

Discrete Manufacturing (as distinct from continuous processing) is the concern of WG 5.3, whose chairman is Mr J.P. Crestin of France. This area includes the highly active and on occasion emotive topic of robotics, the subject of much applications development at present. A key problem in current robotics is to combine the high precision of computer controlled positioning with the « brute strength » ability to lift heavy loads. Robots in assembly, which represent the next major field for automation, will need advanced vision and force-sensing systems. « Industrial robots in discrete manufacturing » was the subject of a WG 5.3/IFAC working conference held in June 1984.

A triennial international conference on computer software for discrete manufacturing, known as PROLAMAT, is sponsored jointly by WG 5.3, AFCET and IFAC. In 1985 this event will be in Paris, addressing the five themes of design and implementation of CAD/CAM systems, computer aided design, computer aided process and production planning and optimisation, robotics and automated manufacturing systems, and artificial intelligence in CAD/CAM. The WG 5.3 chairman is also chairman of the international programme committee for PROLAMAT '85.

Maritime Industries, including the offshore energy industries, are covered by WG 5.6 with Professor C. Kuo of the United Kingdom as chairman. The scope of its work includes « methods of automation of the operations of shipping companies and shipyards, of oceangoing vessels and smaller craft, of fisheries, and of other maritime industries and installations, topics in the use of the associated computers, signal gathering equipment, data presentation devices, and associated equipment and techniques ».

Computers have helped to transform ship technology from the art-based tradition of « naval architecture » to a science-based activity. Ship design is complex, involving the creation of a three-dimensional structure able to operate in both the air and the sea medium. Full structural analysis of any marine vehicle can now be performed using computers, but much remains to be done in the areas of management information and in man/machine communication.

WG 5.6's major regular conference event is the International Conference on Computer Applications in the Automation of Ship Operation and Ship Design (ICCAS), held every three years. In 1985 this conference will be held in Trieste, Italy. In addition, in-depth workshops are being organised on the application of computer graphics to design, management information systems, and the application of expert systems in ship technology.

Automation of Production Planning and Control: this subject is covered by WG 5.7, chaired by Dr Peter Falster of Denmark. The production management area, Dr Falster points out, has been dominated for decades by practical solutions. Its foundation consists of separate models – for functions such as inventory control, material requirements planning and manufacturing activity planning. A single integrated theory is lacking.

No one has yet formulated production laws which could form the starting point for a general theory for production management systems; hence the many problems facing attempts to establish true system software modules for production planning and control. A recent focus for WG 5.7 work in this basically important area was a working conference (held jointly with IFAC) on modelling production management systems.

A closer integration between the production management systems and those for design and manufacture is another important topic on which WG 5.7 is working. The group's area of interest includes project management as well as production management.

Product Specification and Product Documentation is the subject addressed by WG 5.8, TC 5's youngest working group. Professor G. Musgrave of the United Kingdom is the chairman of this group, which is now building up a balanced membership reflecting both theoretical and practical interests.

Formation of this working group reflects the implications of the trend for products to be specified not by drawings but in numerical form, and for this to be followed through at all stages of the manufacturing sequence. Thus an important sub-area consists of the interfaces between product specification and CAD; between CAD and product documentation; and between product documentation and CAM and production management.

Theoretical linguistics work in computer science, it has become apparent, is not being related to production engineering. Based on a balanced industrial/scientific membership, WG 5.8 intends to attempt to remedy this situation. In addition to the interfaces mentioned above, other important sub-areas of the group's work include formal product specification languages; compilation methods for Petri nets, evaluation nets, finite state machines, etc; and information processing methods of integrated text and graphics.

Working Group WG 5.4 is an exception to the normal pattern of IFIP working groups. Chaired by Mr N.E. Malagardis of France, this group has as its subject « Common and/or standardised hardware/software techniques ». The group operates also as the European Workshop on Industrial Computer Systems (EWICS), representing the European branch of the International Purdue Workshop on this subject.

EWICS provides a working body for the preparation of pre-standardisation proposals, and for monitoring and participating in international standardisation activities. It aims to promote the efficient use of industrial computer systems through education, dissemination of information, and the development of standards and guidelines.

The group's detailed work is handled by eight constituent committees, concerned respectively with industrial real-time FORTRAN; industrial real-time BASIC; interfaces and data communications; man/machine communications; safety and security; distri-

buted intelligence; application-oriented specifications; and real-time databases.

REALITY AND DREAMS

A distinguished member of TC 5, Dr Jozsef Hatvany of Hungary, has traced the progress of computer systems in manufacturing in terms of « dreams, nightmares and reality ». First came the dreams of the imminent push-button factory, controlled by a central computer. Next, the nightmare experiences of the pioneers, contending at once with inadequate hardware, software, skill, funding, receptivity and their own underestimation of the unprecedented complexity. Finally, today's realities – possibilities opened up by distributed multiprocessor systems, local area networks and advanced systems synthesis techniques; and limitations imposed by factors of investment, education, employment and the environment.

In Dr Hatvany's survey, the basic factors which have now rendered computer-based manufacturing systems technically and economically viable and marketable are :

- Mature, well-designed, precise, fast, robust and highly reliable numerically controlled machine tools.
- Mature, highly reliable, low-cost, rugged and adaptable electronic controls.
- Appropriate computers in a broad performance and price range.
- Congenial, ergonomic and reliable man/machine interfaces for the shop-floor, the engineer and the supervisor.
- A wide range of mature, rugged, reliable equipment for workpiece and tool transport.
- The possibility of the synthesis of larger manufacturing systems from independently operable sub-systems (machining cells).
- The vastly increased resilience of the new systems.

And there are new dreams for today. Dr Hatvany lists the following eight :

- Intelligent manufacturing systems, utilising AI techniques.
- Advanced database management technologies for distributed yet integrated systems. These should enable a single, holistic data flow to be developed over the whole product life-cycle, while decentralising the actual data handling to the local sub-systems.
- High-level programming that is transparent, manageable, predictable and cost-effective.
- Open systems architectures.
- Computer graphics as a ubiquitous man/machine interface.
- Metamorphic machine tools which change configuration as appropriate.
- New machining technologies.
- Fully automatic assembly using sensor-equipped intelligent robots.

IFIP's Technical Committee 5 is in business to help translate these dreams of today into the reality of tomorrow.

News from IFIP TC-6

Concise Report on the "First African Conference on Computer Communications" – Africom 84

One of the last international events to be sponsored by IFIP TC6 took place in Tunis (Tunisia), 21–23 May 1984. "The First African Conference on Computer Communications" as it was called, was organized by the Centre National de l'Informatique and the Faculté des Sciences of Tunis. The Tunisian Prime Minister was Honorary Chairman.

The main aim of this conference was to report on the progress made in the field of teleprocessing and telematics and give the participants the opportunity to get acquainted with the new horizons opened up to the developing countries.

Besides the papers that were presented on satellite networks, automated office systems and electronic mailing, performance evaluation, personal computers, and computer and local networks, certain African experiments were presented. These were namely the Cameroon network (CAMPAC), the teleprocessing network of the Algerian Ministry of Transport and Communications, and the Tunisian pilot project for the promotion of teleprocessing.

Moreover the following topics: the contribution of new technologies to the developing nations; their social, economic and cultural impact; strategies for assimilating the informatics revolution in the developing countries; ARABSAT, AFROSAT, IBINET and the project for a Regional African Satellite telecommunication system, were discussed by four panels which brought together several leading experts in the field.

320 delegates from 26 countries took part in the conference. Of these countries 14 were Arab or African nations: Algeria, Saudi Arabia, Cameroon, Ivory Coast, Egypt, Gabon, Upper Volta, Iraq, Madagascar, Morocco, Mauritania, Niger, Senegal and Tunisia.

51 speakers and panel members, of which 16 were African (9 Tunisians) contributed to a large and fruitful exchange of information.

A. Danthine
TC-6 Chairman

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received may 12, 1985

Received may 12, 1985

9 months delay!



IFIP 25TH ANNIVERSARY - 1985

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : March 21, 1985

Address reply to : A. DANTHINE

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B - 4000 Liège (Belgique)

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From A. DANTHINE, TC 6 Chairman

To R. UHLIG
O. SPANIOL
H. RUDIN
T. SZENTIVANYI
F. KAMOUN
F. KONIGSHOFER

Concern : New TC 6 Chairman

I announced in Madras my intent to resign as the TC 6 Chairman in October 1985.

During the Madras Meeting we decided that all TC 6 delegates who have attended at least one of the past four TC 6 meetings will be eligible to vote.

It has been decided also that it will be my responsibility to prepare the short list of possible candidates.

All the recipients of this letter have had their name nominated by a test vote carried on in Madras.

The intent of this letter is to ask you to consider your possible designation as a TC 6 Chairman candidate. My experience indicates that it is an essential asset to have availability of funds for travels and also availability of clerical support.

If you feel that these two conditions are met in your case and if you are interested by this challenge, please send me your acceptance as soon as possible.

With my best regards,

A. DANTHINE

c.c. H.W. LE ROUX, Cognizant Officer

MD-83

President : K. Ando (Japan)

Vice-President : G. Glaser (U.S.A.)
Vice-President : A.W. Goldsworthy (Australia)
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IFIP 25TH ANNIVERSARY - 1985

INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING

Date : April 23, 1985

Address reply to : Jacques C. FOURROT
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Dr. R.E.A. MASON
Director/ICS
University of Guelph
GUELPH, Ontario N1G 2W1
Canada

Dear Dick,

Thanks for your letter of April 1, 1985 relative to the Internal Awards Committee's proposal for the definition of a new awards system.

Let me first make it clear that the intent is not to modify in any way the current Silver Core award rules. The Working Group Chairmen are, therefore and will continue to be, eligible for nomination. What we are trying to do is to establish two new awards:

1. A higher level award for distinguished services, in the form of a "Gold Core", which will include some degree of evaluation of real performance, as opposed to the Silver Core rules.
2. An award to be given to those working group contributors not currently eligible for the Silver Core. At this point, the Internal Award Committee has not made any precise recommendation with respect to the nature of the award or the mechanism for attribution. We suggest that the TC Chairman or a sub-committee appointed by the TC Chairmen look into this matter. This should be done during our next meeting in Tokyo, in September 1985.

In the meantime, as suggested by you, the TC Chairmen should continue to look for those individuals, within their constituency, who would be eligible for the Silver Core award. The nomination will be submitted to the General Assembly, for approval, in Dublin, September 1986.

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MD-84

I am sending copies of your letter and my reply to all TC Chairmen, since some of them are possibly not aware of point 2. above, if they have not attended the last day of the Council meeting in Munich when this subject was discussed.

Best regards,



Jacques C. FOUROT

copies: TC Chairmen
President of IMIA
K. ANDO
P.A. BOBILLIER
R.I. TANAKA
H. ZEMANEK
G. ROBERTS