IFIP newsletter
International Federation for Information Processing

Editor:
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A MESSAGE FROM THE PRESIDENT OF IFIP

A Focus on Quality

Since its founding in 1960, **IFIP** has grown to be a large and eminent organization. Currently our technical activities are arranged into 11 Technical Committees, a Specialist Group, and 68 Working Groups. The total number of people involved in this technical structure is around 2000. They are all volunteers, taking part in **IFIP** work because they can advance the work of our Federation, as well as benefit from the international network it provides. **IFIP** depends on the qualifications and the work offered by these people. It is their contributions that can keep **IFIP** prestigious.

The "products" of **IFIP** fall mainly into two categories: conferences and publications. Conferences comprise a variety of activities, from small workshops to the World Computer Congresses. Publications are mainly conference proceedings and some state-of-the-art reports.

During the last few years, we have seen an international decline in the conference market. This can, of course, be attributed to the declining business conditions that have been experienced internationally. IFIP's mission is to disseminate information. We have an obligation to spread knowledge about information processing with a high level of quality, to both industrialized and less-industrialized countries. To fulfil our mission, we must survive in the fierce competition of the conference and publication market. We are not in that competition for profit; we are in it to transfer technology on a nonprofit basis.

I believe that in the conference market, only high-quality activities with specific and specialized scopes will attract delegates from industry and academia in the future. Quality thus becomes a major concern for **IFIP** in the future.

Our greatest strategic advantages in the conference market are probably

- High-quality technical content
- A truly international network
- A volunteer workforce of leading professionals

We must develop these advantages further to strengthen our position. The **IFIP** name must always be associated with the best quality. This can be obtained only by mobilizing the total workforce of our 2000 volunteers. Each of you, through your contributions to **IFIP,** determines the quality of our activities, and thus our reputation. Only if **IFIP** maintains this reputation can you justify the volunteer effort you expend for **IFIP.**

The General Assembly is the body responsible for the overall operation of **IFIP.** Through the Technical Assembly, we have been able to strengthen the bond between the Technical Committees and the General Assembly. The Technical Assembly is

continued on page 4

COMPILER CONSTRUCTION WORKSHOP — CC '92

*by Prof. Uwe Kastens (D) **

The International Compiler Construction Workshop — CC '92 was held October 5-7, 1992 at the University of Paderborn, Germany, with 84 participants from Europe and North America. The main topics of the lectures and discussions were methods and tools for compiler construction, optimization, and compilation for parallel processors and for specific languages. The International Program Committee was chaired by *Prof. Uwe Kastens,* and the organization team by *Dr. Peter Pfahler,* both of the University of Paderborn. The Gesellschaft flit Infor-

* chairman of WG2.4

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Kindly submit material for the ***Newsletter*** three months before the publication date.
Please send the following **IFIP** information directly to the Secretariat: announcements of conferences, workshops, and other meetings; calls for papers; appointments to committees and other positions; and changes of address. The Secretariat is the clearinghouse for all such information; it will forward it to the ***Newsletter.***

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HUMAN-COMPUTER INTERACTION AND PEOPLE WITH SPECIAL NEEDS

*by Prof Brian Shackel (GB)**
and Prof Julio Gonzalez Abascal (E)t

In September, the IFIP Technical Assembly, meeting in Toledo, Spain, approved the formation of a Working Group on Human-Computer Interaction and People with Special Needs (WG13.3). The following background information was presented to support this activity.

HCI and PSN

It is commonly accepted that Human-Computer Interaction (HCI) is one of the most important factors in achieving satisfactory use of the computer. The importance of the Human-Computer Interface becomes critical when the user has any difficulty in using the computer. This difficulty may originate in different causes: physical or mental disabilities, aging, poor language knowledge, etc. In all cases, the design of an adequate interface can give access to the complex world of computers and teleinformatics to people that traditionally have been excluded because of their limitations. Different groups of users are considered together in the catch-all expression "People with Special Needs" (PSN). This usually includes people with disabilities (the blind, deaf, motor-impaired, mentally-impaired, etc.), elderly people, children, and others. All of them can see their lives changed in some way by the use of computers if they are provided with an adequate interface.

People with disabilities. The spectacular development during recent years of the so-called new technologies of information has permeated the application of recent techniques to enhance the quality of life of people with disabilities. Several different handicaps have been overcome, giving to people new possibilities of communication, environmental control, and access to computers and telematic networks.

Elderly people. Most of the new home-care systems and telealarms are based on teleinformatics techniques. They are evolving to very complex and sophisticated devices that require some training for correct use. Moreover, very popular computer-based services such as automatic bank offices are not commonly used by elderly people because they do not understand usage procedures well. In these cases, it could be useful to design easy procedures.

* chairman of the **IFIP** Technical Committee on Human-Computer Interaction (TCI3)
t chairman of WG13.3

Children. Computer-based telecommunication systems, home-alarm systems, environmental-control devices, etc., are becoming common in homes. In some situations their accessibility by children can be of vital importance.

Others. There are other PSN. For instance, people whose first language is not the official language have problems understanding information given through computers. In this case, numerous problems in information systems for daily life could be overcome if multilingual interfaces were available. People hospitalised for a long time can be considered as another group of users with special needs. They can largely profit from special interfaces to computerised help and environmental-control systems.

To give an idea of the numerical significance of PSN, let us mention a paragraph of a report of the European Commission: "If the elderly people with disabilities and children are taken together, they probably amount to as much as 30% of the population. According to available statistics the group of people with disabilities amounts to 15-20% and the group of elderly is as large. However, the two groups overlap to a very great extent..." Nowadays, computers provide new opportunities of access to work, leisure, culture, communications, etc. So it is fundamental to design interfaces that permit the use of the computer to a large number of people with special needs, for whom the computer represents a window to a new world. But the evolution in the design of human-computer interfaces has not always given better opportunities to PSN. As an example, the profusion of graphic interfaces has increased the difficulty of access to computers for blind people used to managing a command-based interface. **In** this kind of case, it is important to offer the possibility of using an alternative interface based on a different physical skill.

To sum up, and generally speaking, the main problems that PSN find in using a computer are:

- Physical accessibility and device usability. The use of terminals requires some physical skills, like sight (to read the display or screen), good control of hand movements (for keyboard and

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ISAAC AUERBACH, IFIP FOUNDER, DIES

IFIP mourns the death of its key founder, *Mr. Isaac L. Auerbach (USA),* who died of myelofibrosis (a bone-marrow disease and a precursor of acute leukemia) 24 December 1992. He was instrumental in the creation of **IFIP** and served as its first president, from 1960 to 1965. We owe him an immeasurable debt.

"Ike" was born in Philadelphia in 1921 and received the B.S. degree in electrical engineering from Drexel University in 1943 and the M.S. degree in applied physics from Harvard University in 1947. Upon graduation, he worked as a research engineer with the Eckert Mauchly Corporation (later to become the Univac division of the Sperry Rand Corporation) and then, from 1949 to 1957, as director of the Defense and Special Products Division of the Burroughs Corporation.

In 1957, he left Burroughs to found Auerbach Associates, a computer design and consulting company, and Auerbach Corporation for Science and Technology, a holding company, in Philadelphia. Auerbach Publications, a publisher of information about computers and communication equipment, was incorporated in 1960. *Mr. Auerbach* served as president and chief executive officer of these companies and several others. Auerbach Consultants was founded in 1976, and he served as its president until his death.

Honors bestowed on him include Fellow of the Institute of Electrical and Electronics Engineers (IEEE), Fellow of the American Association for the Advancement of Science, Distinguished Fellow of the British Computer Society, and member of the U.S. National Academy of Engineering and the U.S. honor societies Tau Beta Pi, Eta Kappa Nu, and Sigma Xi.

We quote the following material written by him for the book *A Quarter Century of* ***IFIP*** (ed. by *H. Zemanek* and published by Elsevier/North-Holland in 1986, © **IFIP)** to memorialize his signal role in **IFIP.**

I vividly remember when the original idea for the formation of **IFIP** came to me. I was attending the Eastern Joint Computer Conference in Boston, in November of 1955.... [Several colleagues and I] were talking about the state of the art of computers as if all of the developments were taking place in the United States, while little or nothing was happening elsewhere in the world. I suggested that it would be interesting and potentially very valuable to have an international meeting on information processing at which computer scientists and engineers from many nations of the world might exchange information about the state of the computer art. ...

The next day, I presented my idea to the U.S. National Joint Computer Committee (NJCC) ... The chairman of the NJCC appointed me to chair an ad hoc committee to develop the idea and bring it back for subsequent discussion. ... [Eventually, we were] authorized to develop a formal proposal for submission to Unesco.

In the fall of 1957, *Prof. Pierre Auger,* the Director of the Natural Sciences Division of Unesco, extended an invitation to a few countries to send a representative to Unesco House in Paris to advise them on the feasibility and practicality of a conference on information processing. I was formally appointed by our State Department to be the official United States delegate. ... The invitation could not have come at a more difficult time for me personally. In June of 1957, I had resigned my position as Director of the Defense and Special Projects Division of Burroughs Research Laboratories to start a new company, then known as Auerbach Electronics Corporation. By December, we had seven employees, and I was working seven days a week and most nights. But the opportunity was too great to miss...

The first Committee of Experts, as we were called, met just before Christmas, and ... was able to convince *Prof. Auger* and his associate, *Mr. Jean A. Mussard, ...* that the subject of information processing was important enough for Unesco to convene an international conference as soon as possible. ... *Prof. Auger* had no difficulty in securing approval from Unesco to fund, organize and convene the First International Conference on Information Processing (ICIP), to be held at the Unesco House in Paris on June 15-20,1959. ... By far the most important success of the conference was the co-mingling of people from all parts of the world, their making new acquaintances, and their willingness to share their knowledge with one another. ...

During the very first meeting of the Committee of Experts in December of 1957, *Prof. Auger* posed the question as to the existence of an international organization in the field of information processing that could convene international conferences in future years. ... At our next meeting in June of 1958 and at subsequent meetings, after completing Unesco business, a group of us would meet regularly in late afternoons and evenings to explore the creation of an organization for convening future information processing conferences. ...

We agreed that the federation would be a society of societies, and would not have individual members so as not to compete with national professional societies. ... It would be noted that in the Scandinavian countries, Netherlands, Japan and Italy no professional technical society dealing specifically with information processing had yet been formed. ... The situation was similar in ... France and the Federal Republic of Germany. ... To join **IFIP, ...** each country had to either organize a national technical society, form a society of societies, or have its Academy of Science apply for membership. In each case, the desire to affiliate with **IFIP** was the driving force that stimulated the formation of umbrella organizations or professional technical societies.

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THE AUSTRIAN COMPUTER SOCIETY

"The comprehensive and interdisciplinary promotion of information processing, with due regard to its effects on man and society" is the objective of the Austrian Computer Society (

In fulfilling this objective, the Society performs five primary functions:

- It serves as an umbrella organization of associations, organizations, and institutions in Austria involved in information processing.
- It represents Austria in **IFIP** and in similar regional associations (e.g., CEPIS — the Council of European Professional Informatics Societies — and IMIA — the International Medical Informatics Association).
- It provides members with services, information, and consultation.
- It promotes research and development projects, especially those of an interdisciplinary nature.
- It organizes international conferences and congresses and helps its member institutions to organize such events.

The Society was founded in 1975, after more than three years of preliminary negotiation. Its institutional members, which number 30, include federal ministries, professional societies, universities, the Austrian Academy of Sciences, the Austrian Chamber of Commerce, and the Union of Private Employees. The Society — unlike **IFIP —** also has a substantial number of individual members (approximately 900). In addition, the Austrian Federal Ministry of Science and Research and nearly 80 corporations and businesses are sponsors of the Society.

The Society has five standing committees and sixteen working and special-interest groups, active in a great number of fields, from the technical to the pragmatic (e.g., legislation and contracts). In addition, the Society offers seminars in various areas of information processing, at a high academic level. The seminars are intended for career-advancement training. Also, a comprehensive seminar program on data processing is held for secondary school teachers, as well as a seminar on the Social Problems of the Computerization of Austria.

Computers for handicapped persons is a major focus of the Society, which organized the First International Conference on Computers for Handicapped Persons in Vienna in 1989. The second, organized together with the Swiss Federation for Information Processing Societies, was held in Zurich in 1991, and the third was held in Vienna in July 1992. Because of its concern with social issues, the Society initiated a resolution, "Proscription of Inhumane and Malicious Computer Games," which was passed by the **IFIP** General Assembly in September 1992.

Each year, the Society administers a programming competition for young people, which is sponsored by the Austrian Ministry of Education and Arts.

The Society grants the Heinz Zemanek Award (in honor of *Prof. Dr. Heinz Zemanek*, **IFIP**' s fourth president and an Honorary Member) annually to a deserving recipient, for research in the field of informatics and computer science. An additional award is given annually to talented university students in the area of informatics.

In 1982, the Society created a regional subsidiary, the Institute for Applied Information Processing, in Graz. This institute is devoted to interdisciplinary research, coordinating the activities of institutes in the region of Graz concerned with information processing.

The Society publishes a journal six times a year, which contains papers from the working groups and institutional and individual members of the Society. The Society also publishes a book series in the field of Information Technology. Sixty-five volumes have been published since 1975. Other publications provide basic information on technical and economic matters and consider the possible effects of information processing on humans and society. The Society also sponsors conferences, seminars, and lectures, having held 20 such events in 1992 and cooperated with other institutions to sponsor an additional 25.

The Society cooperates very closely with the Hungarian John von Neumann Society. Their annual joint conference is a most important event. There is further cooperation in research and university education. The societies will bid together to host and organize **IFIP** Congress '98 in Vienna and Budapest.

The Society also cooperates with the Swiss Federation for Information Processing Societies and the German Gesellschaft für Informatik.

The Society is active in **IFIP,** with members on all but two of the **IFIP** Technical Committees. In 1993, three **IFIP** activities will be held in Austria. The Society is pleased to welcome the **IFIP** Council to Vienna this March.

PRESIDENT'S ADDRESS continued from page 1

today the true strategic body of **IFIP.** A significant challenge is to strengthen the bond between **IFIP** and its Working Groups (WGs). I would like to encourage each WG and each individual WG member to consider this question carefully. I shall be happy to receive any proposal or viewpoint, since I believe that to improve the relationship with the WGs represents a major challenge.

The second challenge is to create a quality-assurance system in each WG. It is necessary to ensure that our conferences have the necessary technical focus and that what is presented represents the best quality, according to international standards. It is equally important that our publications have a similar reputation for quality. We must carefully select what we publish, to comply with the very highest standards. Quality is, in the end, also dependent upon the qualifications of the WG members. I will encourage each WG to establish procedures for admitting new members, to make sure that they have the required skills.

The **IFIP** name must continue to be associated with the very highest quality. I am open to any proposals or ideas concerning how we can strive towards continuous improvement of the quality of **IFIP** activities.

Alsbjørn Rolstadås
President

MEMBER ORGANIZATIONS REPORT TO IFIP

Every year the **IFIP** Full Member organizations are asked to prepare a report for the General Assembly (GA) that summarizes their major activities, new initiatives, and concerns regarding **IFIP.** Sixteen Members submitted reports to the 1992 GA, which met in Toledo, Spain in September. *Prof. Angel*

reports to call the attention of **IFIP** to the concerns of the Member societies. This year *Prof. Alvarez* made the following observations:

> As usual, the reports are full of interesting facts regarding activities carried out by the different societies, which can be of much interest for others to consider.
>
> This year, however, few suggestions were made for initiatives for **IFIP** to take. One exception is a Member (British Computer Society) opposing the rule that TC membership should be discontinued after a TC member misses a certain number of consecutive meetings. The Member society is of the opinion that "[the current] widespread difficulty in finding adequate funds for attending international meetings [makes this] a rather harsh [rule] and can only deprive **IFIP** of the hard work of willing representatives."
>
> Another Member (Danish Federation for Information Processing) suggests that "The apparent difficulties in getting a proper share of the surplus generated from successful **IFIP** events are, in our view, a strong argument in favour of the concept of a royalty on **IFIP** sponsorship. We are particularly favourable to the idea of a 'sponsorship fee' of a fixed amount per registered participant-day, somewhat similar to what, we understand, has been applied by ACM for some time."
>
> At least two Members suggest that **IFIP** should take initiatives in the field of accreditation, either of educational institutions or professionals.
>
> Another Member (SADIO of Argentina) makes a specific request for TC members to consider a Latin American visit next year at the beginning of August to lecture at the annual Latin American Conference PANEL'93, which will be held in Buenos Aires in conjunction with their national annual conference. The **IFIP** President has also been invited to attend this event.

In addition to recommendations to **IFIP,** many other interesting items can be found in these reports. For example, two Members recorded large numbers of student members: the Singapore Computer Society (SCS), with the following breakdown of membership categories of its 3600 members:

student	47%
associate	20%
ordinary	19%
affiliate	14%

and the British Computer Society (BCS) with 13 000 student members out of a total of 39 000.

Several Members complained of the current difficult economic times and the problems they face in financing travel to **IFIP** meetings. The SCS mentioned a new program, the Distinguished Speaker Series, and solicited recommendations from the **IFIP** TCs for speakers. The BCS noted that 200 British people serve on **IFIP's** Working Groups. The French Member, AFCET, announced plans for a large, biennial congress with 12 parallel streams, beginning in 1993. The 1991 convention of the Computer Society of India attracted 2300 delegates and 100 000 visitors to the associated exhibition.

Perhaps the most interesting report came from Czechoslovakia. In it, *Prof. Branislav Rovan,* president of the Czechoslovak National Committee for **IFIP,** wrote of a process that is surely taking place in most of the the central European republics. (Since the report was written, Czechoslovakia has divided. Until the issue of **IFIP** membership for the Czech Republic and the Slovak Republic is settled, the National Committee is serving as the **IFIP** Member. Nevertheless, the transition described is of interest, and we print the bulk of that report here.)

Czechoslovakian Representation

> Let me use this report to explain how Czechoslovakia chose its representation in the past and to highlight possible changes in the future.
>
> *The Past*
>
> As in the other countries of the former "Communist Block," science was directed and financed via the Czechoslovak Academy of Sciences. Also, all professional societies were organized under this big umbrella organization.
>
> When it came to representing Czechoslovakia internationally, the Academy would form "National Committees" for various disciplines. The role of these Committees was to represent their professional communities. With the Academy "covering all" and no other professional societies allowed, this seemed to be a fair scheme. The members of these Committees were appointed by the Presidium of the Academy, with the selection process somewhat unclear. The National Committee for **IFIP** used to have 15 members (10 from Bohemia and Moravia, 5 from Slovakia), with a heavy hardware bias, and its connection to the professional community was almost nil.
>
> *The Present*
>
> Formally, nothing has changed. The old National Committees were dissolved in early 1990, and new ones were formed instead. The selection process was more democratic this time, with the Academy soliciting nominations from all parts of the professional community. The final choice, though, remained with the Academy. The newly appointed members of the National Committee for **IFIP** then elected the President, Vice-President, and Secretary. This happened in June 1991. The more democratic procedure used by the Academy to form the Committee did not result in an ideal professional structure of the Committee and caused some problems with TC representation and links to the professional community.
>
> *The Future*
>
> I see two main goals that the National Committee for **IFIP** in Czechoslovakia should strive to achieve within its period in office. The first is to establish closer connection to the professional community in all areas of the **IFIP** activities. The second is to prepare new schema for representing Czechoslovakia in **IFIP.**
>
> The present changes in the political life in Czechoslovakia and a possible split into two states make our work even more complicated. Because of total lack of finances, present *activities* of the National Committee are based solely on the enthusiasm and support its members are able to gather personally. We expect this to change when our economy recuperates a bit and industrial sponsorship becomes available.

Much can be learned from these reports. We urge all Member societies to prepare informative annual reports describing their activities and concerns. ■

SECURITY AND CONTROL OF INFORMATION TECHNOLOGY

Dependence on information technology (IT) is widespread. IT is used for the operation and control of a range of social, industrial, commercial, governmental, and regulatory processes, yet it introduces new potential threats to personal privacy and freedom, and new opportunities for criminal activity. These dangers have to be countered and controlled in a manner that balances the benefits of IT. Therefore, careful consideration has to be given to determine what constitutes the most effective control and regulation of IT. Such topics should be high on national agendas.

IFIP's Working Group on Information Technology Misuse and the Law (WG9.6) is holding a working conference to explore these issues, from 12 to 17 August aboard the conference ship M/S Ilich between Stockholm and St. Petersburg. On the Saturday of the conference week, the conference will convene in St. Petersburg for meetings with Russian representatives, providing a valuable opportunity to discuss some of the problems of IT in an emerging capitalist economy.

The conference, Security and Control of IT in Society, will explore major issues, including particular reference to Eastern European economies. The organizers are eager to attract people representing a wide range of interests, including central governments, regulatory bodies, information system users, relevant public interest groups, the legal profession, and academics. Participants from all parts of Europe and beyond will be welcome. In addition to full conference papers, there will be shorter papers in a "case study" format, each designed to address a specific issue of relevant concern. Sessions will allow ample time for comment and general discussion.

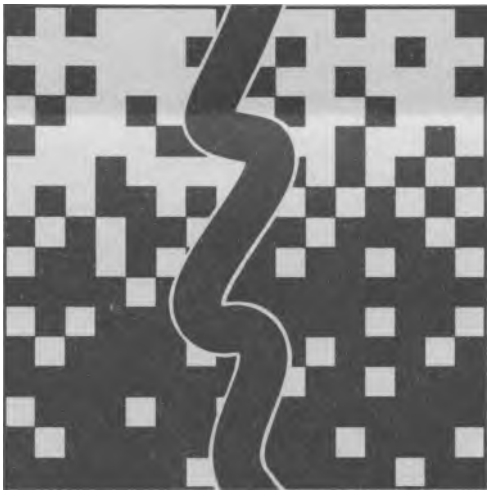
Eur. Ing. Richard Sizer (GB), chairman of WG9.6, is conference chairman, *Dr. Louise Yngstrom (S)* is in charge of local organization, and *Prof. Martin Wasik (GB),* secretary of WG9.6, is chairman of the International Program Committee. The proceedings will be edited by *Ing. Sizer, Prof. Wasik,* and *Prof. R. Kaspersen (NL).* Since the number of delegates is limited, those desiring to attend should immediately contact *Prof. Wasik* at the following address:

Prof. Martin Wasik
Faculty of Law
Manchester Univ.
Manchester M13 9PL, United Kingdom
tel: +44 61 275 3594
fax: +44 61 275 3579

INTEGRATED NETWORK MANAGEMENT

*by Branislav Meandzija (USA) **
and Wolfgang Zimmer (D) t

We live in an era when computer and telecommunications networks and distributed systems are not only exploding in terms of volume and complexity, but are rapidly becoming as commonplace in business as the personal computer. Such rapid changes induce growing challenges to manage an ever-increasing variety of underlying network technologies and applications. These challenges are magnified by the growing demand for seamless integration of computer and communications services into overall enterprise management. The 1993 International Symposium on Integrated Network Management (ISINM '93) — to be held 18-23 April 1993 — offers a comprehensive response to these challenges of the nineties, through a week-long evaluation, review, and discussion of current research, development, technologies, and products. ISINM '93 is sponsored by IFIP's Working Group on Network Management for Communication Networks (WG6.6).



For the first time, the 1993 symposium offers Technology Centers, where multiple vendors will participate in live interoperability demonstrations. This highlight of the symposium program reflects our perspective on the principal element in any solution in integrated network management: interoperability across technologies, platforms, and applications.

When we held the first ISINM in Boston in 1989, standards for enabling integrated network management across multiple vendor networking resources were in the midst of development in regional and international arenas. While some people thought that developing these standards was the most difficult part of the road to integrated management, many realized a few years later that standards were just the beginning of a long journey.

When we held the second ISINM, in Washington, D.C. in 1991, the need for enterprise-oriented management across data and telecommunications applications and distributed systems became increasingly apparent. Multi-vendor demonstrations in Europe, Japan, and North-America seemed to indicate that the time had come when users could competitively procure network management products in any of several countries and be confident that they would interoperate with comparable products in other regions. That was not the case.

We have learned. We are not at the end of the road; we are not even in the middle. We are only at the beginning and will probably remain there for the greater part of the nineties. Worldwide coordinated strategies are needed for evolving network management in the best way.

As the network management world continues evolving, our ongoing series of biennial international symposia will continue to foster and promote nonpartisan forums among individuals of diverse and complementary backgrounds to encourage international information exchange about all aspects of network and distributed systems integrated management.

For a copy of the advance program or registration information for ISINM '93, please contact

ISINM '93
P.O.Box 191885
San Francisco, CA 94119, U.S.A.
tel: 1 (415) 512 0800
fax: 1 (415) 512 1325
e-mail: 004367585@mcimail.com

To broaden the scope of these symposia, WG6.6 has been successfully collaborating with the Committee on Network Operations and Management (CNOM) of the Communications Society (COMSOC) of the Institute of Electrical and Electronics Engineers (IEEE). ISINM and the Network Operations and Management Symposium (NOMS), originally a CNOM activity, are the premier technical conferences in the area of network and systems management, operations, and control. ISINM is held in odd-numbered years, and NOMS is held in even-numbered years.

* vice-chairman of WG6.6
f chairman of WG6.6

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HUMAN-COMPUTER INTERACTION

INTERCHI'93, a joint conference sponsored by IFIP's Technical Committee on Human-Computer Interaction (TC13) and the Association for Computing Machinery (ACM), is an especially important conference in the Human-Computer Interaction field. (Also see the article on page 6 of the December 1992 *IFIP Newsletter.)* The conference, to be held 24-29 April 1993 in Amsterdam, has significant advantages because of its European location and its combination of the **IFIP** INTERACT conference with the CHI conference of the ACM Special Interest Group on Computer and Human Interaction (ACM/SIGCHI).

Those involved in planning the conference look forward to the possibility of future joint meetings. "Both series of conferences began in the early 1980s," comments *Prof. Brian Shackel (GB),* TC 13 Chairman, "and it is excellent that they have come together on this occasion."

People with diverse backgrounds have the opportunity to get to know one another at INTERACT and CHI conferences. From the start, INTERACT has attempted to provide an overview of the current international state of the field every three years. INTERACT'90 was attended by about 600 people from 29 different countries; its proceedings contained over 1000 pages. The annual CHI conference, originally a small meeting for psychologists interested in user-interface design, has grown to include a more diverse participant group, such as computer scientists, engineering psychologists, artists, and designers, and to deal with larger problems such as the organizational integration of technology. CHI'92 was attended by about 2600 people.

In several areas, European user-interface work has a broader focus than that typical in North America, going beyond the more usual office automation tasks to many more embedded systems applications. European user-interface designers also concern themselves much more with "work psychology" and design of the total working environment than designers in North America have done in the past.

Mr. Austin Henderson (USA), Chair of SIGCHI, is Technical Programme Chair for INTERCHI'93. For further information, please contact the European Office:

INTERCHI'93,
Soerenseweg 32
7314 CE Apeldoorn, The Netherlands
tel: +31 (20) 5485591
fax: +31 (30) 6441746
e-mail: ic93-office.chi@xerox.com

IFIP HAS NEW PRESS OFFICER

In order to increase international awareness of **IFIP** and its activities, our newly appointed Press Officer, *Mr. Andrew Morris (ZA),* would like to establish contact with **IFIP** General Assembly (GA) representatives and editors of appropriate newsletters and journals produced in member countries.

Mr. Morris writes, "To ensure the success of major **IFIP** events, such as the Congresses, it is essential that we utilise the various publications. The first step in achieving this is to identify those individuals involved in producing newsletters for their societies. The next step is making contact with industry publications that are willing to use press releases from **IFIP.**"

Mr. Morris is engaged by *The Argus,* a Cape Town daily newspaper, as its computer correspondent and has established contact with international news services for the distribution of topical news items.

"There are many publications in the computer field," he writes, "and I am sure that the majority will be only too willing to promote IFIP, just as long as we give the material to them in the format they require. Even daily newspapers are a useful medium for promoting **IFIP** activities and news. All that is required is detail of a contact person."

The success of **IFIP** events depends upon reaching as wide an audience as possible, so the Press Officer will establish a database of contacts for all publications in the computer field and related fields. Readers of this *Newsletter,* especially GA representatives, are encouraged to submit the names of publications to *Mr. Morris,* so that he can accumulate a list of contacts. Details should include the names of the publications, names of contact persons, addresses, e-mail addresses, and publication deadlines. Information should be sent to

Andrew Morris
Information Systems
Department of Accounting
University of Cape Town
Private Bag
Rondebosch 7700, South Africa
e-mail: andrew@infosys.uct.ac.za
tel: +27-021-650-4028
fax: +27-021-650-4085

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or the North American Office:

INTERCHI'93 NA
P.O. Box 1279
Pacifica, CA 94044, U.S.A.
tel: +1 (415) 738-1200
fax: +1 (415) 738 1280
e-mail: ic93-office-na.chi@xerox.com ■

BOOKS BY IFIP AUTHORS

Several people active in **IFIP** published books in 1992 (in addition to books that were proceedings of **IFIP** events). We mention a few here and apologize for any we've missed.

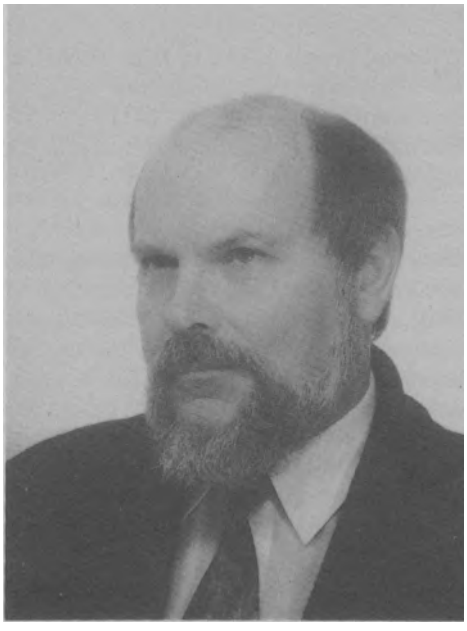
Univ.-Prof. Dr. Heinz Zemanek (A), honorary member and former president of **IFIP,** wrote *Das geistige Umfeld der Informationstechnik (The Intellectual Environment of Information Technology),* published by Springer-Verlag. It is a collection of 10 lectures on a variety of topics ranging from history and system architecture to computer philosophy.

Prof. Gerard Reijns (NL), chairman of **IFIP's** Technical Committee on Computer Systems Technology (TC10), and *Dr. Jian Luo (NL)* edited the book *Transputing in Numerical and Neural Network Applications,* published by IOS Press. The book "examines the use of transputers in numerical computing and neural networks."

Prof. Asbjørn Rolstadås (N), **IFIP's** president, is editor of *Production Planning & Control,* an international quarterly journal that "aims to bring together research papers, on all aspects of production planning and control, and provide a medium for their rapid publication." Now in its fourth year, the journal is published by Taylor & Francis. *Prof. Peter Falster (DK),* a member of **IFIP's** Technical Committee on Computer Applications in Technology (TC5), is co-editor of the journal.

Prof. Edmund Clarke, Jr. (USA) and *Dr. P. A. Subrahmanyam (USA),* members of **IFIP's** Working Group on System Description and Design Tools (WG 10.2), and *Prof. Robert Brayton (USA)* are the editors of a new journal, *Formal Methods in System Design,* published by Kluwer Academic Publishers. This is "the first international journal specifically devoted to formal methods for designing, implementing, and validating the correctness of hardware and software systems." In the editorial of the first issue, the editors say, "We feel that it is important to recognize the contribution of **IFIP** Working Group 10.2 in the formation of this journal. WG 10.2 recognized the importance of formal methods in hardware quite early and has held a regular series of workshops on this topic beginning in 1984. Many of the seminal ideas in this area of research were first presented at one of these workshops." ■

PROF. KARL KAISER IS CHAIRMAN OF IFIP CONGRESS '94 ORGANIZING COMMITTEE



participants in **IFIP** Congress '92 and the subsequent **IFIP** General Assembly, held in September in Madrid and Toledo, respectively, had an opportunity to meet *Prof. Karl Kaiser (D).* He has been appointed chairman of the Organizing Committee for **IFIP** Congress '94, the 13th World Computer Congress, to be held in Hamburg 28 August-2 September 1994. We print here some information about *Prof. Kaiser,* so that those of us who shall be working with him may know him better.

Prof. Kaiser was born in 1942 in Krefeld, near Düsseldorf, Germany. He earned a university degree in mathematics and civil engineering at the Technische Hochschule in Aachen in 1968, after which he worked as a civil engineer in design and construction in an engineering office until 1970, followed by employment in the Department of Design and Construction at the Institute for Applied Informatics at the Ruhr University in Bochum. He was awarded the Doctor of Engineering degree in 1977, based upon a dissertation in applied mathematics related to informatics.

From 1978 to 1980, he served as Visiting Professor in the Department of Informatics at the University of Hamburg; since 1980, he has held the rank of Professor in that department. From 1983 to 1988, he was acting manager of the Regional Computing Center of the University, and he has been Director of the Computing Center since 1988. From 1985 to 1988, he was Dean of the Department of Informatics.

During his career, *Prof. Kaiser* has published several works in the fields of digital signal processing, robotics, and medical engineering. He has organized other conferences and congresses, such as the annual conference of the Gesellschaft fül. Informatik (the German Member society of **IFIP)** in 1983.

While he chairs the Organizing Committee for **IFIP** Congress '94, he is also involved with the organization of the fifth **IFIP** Conference on Computer Application in Production and Engineering — CAPE '94, which will take place in Hamburg immediately prior to Congress '94.

Prof. Kaiser and his wife, Birgitte, are the parents of two children and care for two foster children. When asked about his hobbies, he replied that most of his youthful athletic activities have been abandoned, replaced with gustatory pleasures. He leaves his office desk for his homey kitchen as often as his work permits.

INTELLECTUAL PROPERTY RIGHTS IN COMPUTER SOFTWARE AND THEIR IMPACT ON DEVELOPING COUNTRIES

WG9.4 Conference in India

*by Prof. K. Gopinath (IND)**

Since the landmark judgement in 1981 concerning a software-related invention in the U.S., and the extensive litigation involving user-interface copyrights, the issue of intellectual property in software has been crucial. It has become all the more important since the beginning of the Uruguay Round of the GATT talks (General Agreement on Trade and Tariffs) in 1987, where the issue of protection of intellectual property has been debated in a general setting. Most recently (late 1991), the Secretary General of GATT (Arthur Dunkel) has proposed a draft (the Dunkel Draft Text, DDT) for consideration by the world community.

The question of intellectual property in computer software is not well understood, and the DDT contains many new proposals that affect this area and that may have far-reaching effects in the future.

As a result, IFIP's Working Group on Social Implications of Computers in Developing Countries (WG9.4) is planning a conference on Intellectual Property Rights in Computer Software and Their Impact on Developing Countries, which will take place 20-21 August 1993 in Bangalore, India. The Conference is being organized by WG9.4 and the Computer Society of India in cooperation with the Indian Institute of Science.

The issues to be debated are very pressing, since many developing countries are hoping to generate jobs and exports through computer software. Productivity software that is used in developed countries is much too expensive for use in most developing economies. If such software is to be developed in developing countries because of cost, it has to conform with standard interfaces and also respect intellectual property rights extant at the time. The DDT proposals make contracting governments responsible for enforcing these rights. Hence, it is crucial to investigate the choices available to developing countries in the area of intellectual property rights.

Papers are due 1 May 1993. They will be selected through a referee process. E-mail submission is strongly encouraged, especially in Latex / Wordstar format. All e-mail submissions will be acknowledged; authors should re-send a transmission if no acknowledgment is received. If an e-mail facility is not available, authors should submit five copies of the manuscript on A4-size paper, not exceeding 20 pages. The proceedings of the Conference will be published by Elsevier/North-Holland. For further information, please contact

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* WG9.4 member and conference coordinator

ALBANIA JOINS IFIP

Approved by 1992 General Assembly

The September 1992 **IFIP** General Assembly (GA), meeting in Toledo, Spain, approved the admission of the Albanian Institute of Informatics and Applied Mathematics (INIMA) as a Full Member of **IFIP.** According to our Bylaws, INIMA will be formally admitted when its representative attends a Council or GA meeting (preceded by payment of dues). Following is a description of INIMA.

INIMA was created in 1986 from the old Center of Computational Mathematics of the Academy of Sciences of Albania. The Center itself was founded in 1971, with personnel from the University of Tirana Department of Mathematics. Forty professionals are employed at INIMA.

The work of the Institute is concentrated in three areas. Besides scientific work on informatics and applied mathematics, INIMA works on training and technical consulting for informatics and applied mathematics problems and methods. Internationally, INIMA is the representative (focal point) of Albania in the Intergovernmental Informatics Program **(IIP)** of UNESCO. INIMA is also working on some programs with the United Nations Development Program and UNESCO for the development of informatics in Albania.

INIMA is composed of 6 scientific sectors (departments):

- Informatics
- Operating Systems
- Electronic Techniques
- Operational Research
- Probability and Mathematical Statistics
- Numerical Methods

The INIMA staff has been trained abroad, mainly in France, in the fields of developing applications in informatics and mathematics and maintaining software and hardware.

INIMA is a federal institute, totally financed by the government. Because of the grim state of the Albanian economy, the resources of the Institute are very limited. The government is considering the possibility of changing the status of INIMA from totally supported to half-supported, oriented towards a market economy. INIMA is also trying to become involved in projects supported by the European Community, to create connections with foreign institutions and enterprises, and to be involved in common projects with them.

As a result of recent developments in Albania, INIMA plans to reorganize itself in order to increase its abilities in the following three ways:

1. To perform complex informatics projects for such diverse areas of activity in Albania as the economy, energy, tourism, and telecommunication.

2. To organize training courses for specialists, teaching them how to use computer systems and applied mathematical methods in the management of enterprises and other institutions.

3. To computerize the economic and management activities of various enterprises and institutions. To achieve this, INIMA can perform analyses concerning the present and future needs of the enterprises, specify the informatics systems, write programs, install the equipment and maintain both hardware and software, translate technical documentation, and train personnel to operate the systems.

We look forward to Albania's playing an active role in **IFIP.** ■

AUERBACH continued from page 3

On June 18, 1959, the fourth day of the ICIP, the final meeting of the **IFIP** Organizing Committee was held, and by the conclusion of the meeting, the following decisions had been taken: to create an international federation **of** information processing societies **(IFIPS)** if seven or more national technical societies agreed to ratify the statutes before January 1, 1960, and to authorize the Council to examine the possibility of holding a Second International Conference and Exhibition on Information Processing in 1963... This was a most auspicious occasion, and all of us who had spent so many hours planning for this meeting were delighted with its results. ... By January 1, 1960, thirteen national professional technical societies had formally agreed to adhere to the statutes proposed by the Organizing Committee, and **IFIP** legally came into existence. ...

Aware that politics can often get in the way of science and technology, **IFIP** established from the very beginning that the General Assembly meetings were to be apolitical. People of vastly different cultural and political backgrounds have come together at **IFIP** General Assembly meetings, Congresses, and Conferences, and there has never been a major outburst or rift due to national or political differences. ...

[IFIP's] success was largely due to the unflagging energies of the early **IFIP** representatives and officers and their successors, all of whom had the foresight to recognize **IFIP's** importance and the dedication to devote countless hours to its concerns.

Mr. Auerbach was also a co-founder of the American . Federation of Information Processing Societies (AFIPS).

In addition to serving as **IFIP's** president, he had many other roles, including representative of the U.S. from 1960 to 1964, Individual Member from 1964 to 1970, and Council member from 1966 to 1969. He was **IFIP's** first Honorary Member (elected in 1969) and one of the first recipients of the Silver Core award, in 1974. The **IFIP** community last saw him participating in 1989, when he attended the General Assembly in San Francisco. He was clearly a man of great warmth and charm.

In addition to his technical interests, he was also a philanthropist. **In** particular, he was a benefactor of the Ben-Gurion University of the Negev (Israel), serving as vice-governor of the board of governors from 1988 to the time of his death.

IFIP extends its deepest sympathy to his wife Carol and his five children. We too mourn the loss of our founder, a man of vision and devotion. ■

National Abbreviations Used in Newsletter

A	Austria	D	Germany		Japan
AUS	Australia	DK	Denmark	N	Norway
BG	Bulgaria	E	Spain	NL	The Netherlands
BR	Brazil	F	France	S	Sweden
CDN	Canada	GB	United Kingdom	SF	Finland
CH	Switzerland		Italy	USA	U.S.A.
CLEI	Centro Latinoamericano de Estudios en Informatica	IND	India	ZA	South Africa
		IRL	Ireland	ZW	Zimbabwe

'MILLIONS CAN NOW ACCESS IFIP DATABASES THROUGH COMPUTER NETWORKS

Two major repositories of **IFIP** information are now available for access by the **IFIP** community as well as by anyone else who can reach the repositories through international computer networks. Both databases contain similar information; however, one must use different techniques to access them.

At present, the databases contain the following information:

- the December 1992 and March 1993 issues of the ***IFIP*** *Newsletter,* in both ASCII and PostScript (binary) format
- the brochure *What Is* ***IFIP?***
- information about **IFIP** Congress '94
- material about the Federation on Computing United States (FOCUS, the U.S. Member society of **IFIP)**

More information will be added as time passes.

The two means of access are "ftp" and ordinary e-mail. Brief instructions are included here; for more detailed information, please consult the specialists at your computer installation.

Access with ftp

To access by means of ftp, please follow these steps:

1. Issue the command
   ftp software.watson.ibm.com
2. Login as "anonymous"
3. Use your Internet address *(userid@nodeid)* as the password.
4. Issue the command
   cd /pub/ifip
   to access the **IFIP** directory.
5. If a copy of the index of **IFIP** files is desired, issue the command
   get index.txt
6. Issue the command
   get *fileid*
   to receive a copy of file *fileid (fileid filename.extension).* To receive a copy of that file and change its designation to *fileid2,* issue
   get *fileid fileid2*
7. Issue the command
   quit
   to exit from ftp.

To get binary PostScript files through ftp, first issue the command "binary." Some systems will ask for format and size as well. In this case, enter

binary f 256

To subsequently get ASCII files, issue the command "as."

In requesting files, be aware that the file names are case-sensitive in ftp. For example, issuing "get NL4Q9201.PSB" will not fetch file n14q9201.psb. To get multiple files, use the wild-card character "*." For example, to get all pages of the December 1992 ***IFIP*** *Newsletter,* issue

mget n14q92*.psb

Access with e-mail

To access **IFIP** files by ordinary e-mail, send a note to listserv@cearn. The note should contain a line

get *fileid*

in its body *(fileid = filename filetype).* For example, "get index txt" results in file index txt, which contains the index of **IFIP** files, being mailed to the requester. To receive several files, send a note with several "get *fileid'* lines in the body. Users on Bitnet nodes need not send notes to receive files. Instead, they can issue the command

tell listsery at cearn get *fileid*

which will result in file *fileid* being sent.

Binary PostScript files containing images of the ***IFIP*** *Newsletter* pages are available only through ftp (from the software. watson.ibm.com repository) and through Bitnet (from the listsery at cearn repository). Other users may access the same information in the form of ASCII files containing the individual articles from the *Newsletter.*

The **IFIP** database facilities have been created by *Mr. Howard Funk (USA),* an **IFIP** vice president, with the assistance of *Mr. Nick Trio (USA)* of the IBM Corporation and *Mr. Olivier Martin (CH)* of CERN.

Technical Committee and Working Group chairmen are encouraged to add information about their organizations to the database, which can be accessed by the millions of Internet and Bitnet subscribers. Chairmen may send requests for this service to hlfunk@watson.ibm.com (Internet) or hlfunk at watson (Bitnet).

A special ftp repository has also been established in Hamburg for information about **IFIP** Congress '94. To access this database, issue the command

ftp ftp.informatik.uni-hamburg.de

and follow steps 2-7 listed above. As stated earlier, the Congress files are also available on the two complete **IFIP** databases.

CC '92 continued from page 1

matik (the German member of **IFIP),** the **IFIP** Technical Committee on Software: Theory and Practice (TC2), and the **IFIP** Working Group on System Implementation Languages (WG2.4) supported the event. The proceedings, *Compiler Construction, 4th International Conference, CC* 92, were edited by *Kastens* and *Pfahler* and published by Springer-Verlag.

Prof. Niklaus Wirth (CH) opened the workshop with an invited keynote lecture on "30 Years of Programming Languages and Compilers." He summarized his occasionally provocative talk as follows:

> The first part of this talk was a brief review of the development of high-level programming languages, whose essential purpose is to let the programmer formulate programs in terms of abstractions, i.e., in terms of structures independent of those offered by individual computers. We regard Algol 60 as the ancestor of high-level languages. Languages designed by this author [Wirth] reflect the continuous evolution of programming methodology during the subsequent decades: Pascal originated around 1970 and reflects the ideas of structured programming; Modula-2 (1980 and later) reflects those of modular programming; and Oberon (1990) those of object-oriented programming. During these three epochs, the subjects of program design and software engineering have made substantial advances.
>
> The second part of the presentation started with the question whether today's programmers in general make use of this progress. In view of the current spread of the programming language C, the answer is rather negative, since C — because of its lack of guarded abstractions — must be equated with low-level languages of the 60s rather than with high-level languages of the Algol line. Particularly regrettable is the broad and uncritical acceptance of C in education, where learning method and abstraction, learning to choose appropriate, structured representations, and learning clear and concise formulation should be the primary goal.
>
> In the last part of the talk, a number of suggestions were offered for reverting the current trend. Among them was reflection about what is truly essential in Computer Science education: that academic education influence practice in industry and commerce.

The next event of this series on compiler construction, CC '94, is scheduled for April 1994 in Edinburgh.

HCI/PSN continued from page 2

mouse), and in some cases hearing (for some alarms). When people lack one or more of these skills, they need to replace the standard interface by another one appropriate to their abilities.

- Cognitive performance. Often, mentally-impaired people are not expected to be computer users. On the contrary, computers can provide a huge help in their rehabilitation, communication, and social integration. Adaptive interfaces that can correspond to the cognitive capacities of users have to be developed.
- Procedure comprehension. In some other cases, people not used to manipulating computers have difficulties in understanding the procedures for use of the device.

Some Previous Initiatives in the Field of Technology and PSN

A number of international initiatives have been taken to encourage and facilitate the use of computers by PSN. Their objective is to break the isolation of PSN and enhance their social integration. To this end, they promote the adaptation of standard computers to PSN and/or the design of specifically user-oriented devices.

These initiatives include the following: the Industry/Government Cooperative Initiative on Computer Accessibility in the U.S.A.; the European Telecommunications Standards Institute (ETSI) Sub-Technical Committee on Human Factors on the topic of "Telecommunication Facilities for People with Special Needs"; the European Co-operation in the field of Scientific and Technical Research (COST) Project 219 on "Future Telecommunications and Teleinformatics Facilities for Disabled People"; and several projects within the Commission of the European Communities RACE and TIDE Programmes (Research and Development in Advanced Communication Technologies in Europe, and Technology for the Social-Economic Integration of Disabled and Elderly People).

All these initiatives aim to promote the use of information processing technology to help PSN in their daily lives. As mentioned above, one of the most important problems that PSN find in using standard computers is that the HC interface does not fit their needs. Frequently, the more complex and sophisticated the interface is, the more difficult it is to adapt to PSN. So, it is very important that the designers have in mind from the beginning of the design process these special needs for alternative access to computer. The use of different interfaces according to the needs of the user can no longer be the result of a patchwork process, but should be decided in the design process.

Conclusion

It is considered that an **IFIP** Working Group on Human Computer Interaction and People with Special Needs will be able to provide an important international scientific forum for gathering, exchanging, focusing and disseminating the latest developments in both research and application. (The Scope and Aims of WG13.3 were printed on page 7 of the December 1992 ***IFIP*** *Newsletter.* — Ed.) ■

TECHNICAL COMMITTEE CHAIRMEN

TC2:	P.C. Poole	AUS 89-95
TC3:	P. Bollerslev	DK 91-94
TC5:	M. Tomljanovich	1 91-94
TC6:	0. Spaniol	D 92-95
TC7:	P. Thoft-Christensen	DK 89-95
TC8:	G.B. Davis	USA 89-95
TC9:	K. Brunnstein	D 89-95
TC10:	G.L. Reijns	NL 89-93
TC11:	W.J. Caelli	AUS 91-94
TC12:	R.A. Meersman	NL 89-95
TC13:	B. Shackel	GB 89-95
SG14:	J. Gruska	CS 89-95

ISINM continued from page 6

CNOM and WG6.6 have been working together as a team to develop both these symposia.

Since 1990, WG6.6 and CNOM have also been organizing the International Workshops on Distributed Systems: Operations and Management (DSOM), which take place every October. DSOM '93 will take place October 5-6 in Long Branch, New Jersey and will be hosted by AT&T Bell Laboratories. For more information, contact

Dorotea DeSan
Room 1L-314
AT&T Bell Laboratories
101 Crawfords Road
Homdel, NJ 07733, U.S.A.
tel: I (908) 949-5534, fax: 1 (908) 949-8569
e-mail: dds@arch3.att.com

For more information on future events (DSOM '94, ISINM '97, etc.) and other related activities, please contact

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e-mail: zimmer@first.gmd.de
or zimmer@first.berlin.gmd.dbp.de ■

CALLS FOR PAPERS

Fourteenth Annual Intl. Conf. on **Information Systems — ICIS '93**
5-8 Dec 93, Orlando, Florida
papers due: 8 Mar 93
contact: Dr. Robert Bostrom
Dept. of Management
College of Business Administration
University of Georgia
Athens, GA 30602, U.S.A.
tel: I (706) 542-1294, fax: 1 (706) 542-3743
e-mail: bbostrom@ugabus

Fifth WG5.7 Intl. Conf. on **Advances in Production Management Systems — APMS '93**
28-30 Sep 93, Athens
papers due: 10 Mar 93
contact: Asst. Prof. Ilfas P. Tatsiopoulos
HMA: 2 Charokopou Str.
GR-176 71 Kallithea, Greece
tel: +30'1'937-3870-5, fax: +30'1'937-3884

IFIP/IEEE Intl. Workshop on **Distributed Systems: Operations & Management — DSOM'93**
5-6 Oct 93, Long Branch, New Jersey
papers due: 15 Mar 93
contact: Dr. Doug Zuckerman
AT&T Bell Laboratories
Room 3P-364
200 Laurel Avenue
Middletown, NJ 07748, U.S.A.
tel: 1 908-975-7874, fax: 1 908-957-7500
e-mail: w2xd@mrspock.att.com

Second **IFIP** Intl. Work. Conf. on **Fractals in the Natural and Applied Sciences — FRACTAL 93**
7-10 Sep 93, London
papers due: 30 Apr 93
contact: Miroslav M. Novak
School of Physics
Kingston Univ.
Surrey KTI 2EE, England
e-mail: novak@kingston.ac.uk
fax: +44 (0)81 547 7419, tel: +44 (0)81 547 2000

WG5.3 Intl. Workshop on **The Design of Information Infrastructure Systems for Manufacturing — DIISM 93**
8-10 Nov 93, Tokyo
papers **due:** I Jun 93
contact: DIISM 93
do Yoshikawa Laboratory
The Univ. of Tokyo
Dept. of Precision Machinery Engineering
7-3-1 Hongo, Bunkyo-ku
Tokyo 113, Japan
e-mail: jago@zzz.pe.u-tokyo.ac.jp
fax: +81-3-3812-8849, tel: +81-3-3812-2111, ext. 6481

IFIP Work. Conf. on **Programming Concepts, Methods and Calculi**
6-10 Jun 94, San Miniato, Italy
papers **due:** 1 Dec 93
contact: Prof. Dr. E.-R. Olderog
FB Informatik
Univ. Oldenburg
Postfach 2503
D-2900 Oldenburg, Germany

Thirteenth World Computer Congress: **IFIP Congress '94**
28 Aug-2 Sep 94, Hamburg
papers due: 14 Jan 94
contact: IFIP '94
c/o Congress Centrum Hamburg
Congress Organisation
P.O. Box 30 24 80
W-2000 Hamburg 36, Germany
tel: +49 40/35 69-22 42, fax: +49 40/35 69-23 43
telex: +212 609

Sixth World Conf. on **Computers in Education**
23-28 Jul 95, Birmingham, U.K.
papers due: 31 Jul 94
contact: WCCE/95
Margaret St.
Birmingham B3 3BW, U.K.
tel: .44+(0)21-428 1258, fax: 44+(0)21-428 2246 ■

CHANGES IN IFIP

NEW APPOINTMENTS

GA MEMBER

GA rep. of CLEI: Prof. M.R.S. Borges
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fax: 55 (21) 2708554
e-mail: mborges@barra.nce.ufrj.br
(succeeding Prof. J.A. Pino)

WG OFFICER

WG5.6 chairman: Mr. **M.** Villabo
Deputy Managing Director
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N-7034 TRONDHEIM, Norway
fax: 47 (7) 595776
(succeeding Dr. J.M. Hee)

TC and WG MEMBERS:

TC6: Prof. Dr. Tadao Saito **(J)**
(succeeding Dr. K. Ono)

WG7.3:
G. Balbo (I)
D.L. Eager (CDN)
D. Gayer (USA)
A.G. Konheim (USA)
R. Muntz (USA)
E. de Souza e Silva (BR)
H. Takagi (J)
K.S. Trivedi (USA)

WG7.6:
D. Ionescu (CDN)
W. Wittig (D)

WG8.2:
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FUTURE IFIP MEETINGS

GENERAL ASSEMBLY AND COUNCIL (and related meetings)

Council	1-4 Mar 93	Vienna
GA	6-10 Sep 93	Tokyo
GA	(contiguous to **IFIP** Congress '94)	Hamburg
GA	(contiguous to **IFIP** Congress '96)	Canberra, Australia

TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS*

WG2.1	10-14 May 93	Winnipeg, Canada
WG2.2	28 Jun-2 Jul 93	Hamilton, Ontario
WG2.3	5-9 Jul 93	Lake Simcoe, Canada
WG2.4	22-26 Mar 93	South Africa (?)
	4-7 Oct 93	Monterey, California
WG2.7	20-23 Apr 93	Copenhagen
	Sep 93	New Jersey
WG2.8	11-13 Jun 93 (with FPCA'93 conf.)	Copenhagen
	mid 94	Calgary, Canada
TC3	28-29 Aug 93	Birmingham, U.K.
	26-27 Aug 94	Hamburg
	22-29 Jul 95	Birmingham, U.K.
WG3.1	7-11 Jun 93 (with conf.)	Gmunden, Austria
WG5.3	12-16 Sep 93 (with conf.)	Phoenix, Arizona
WG5.7	probably Sep 93 (with APMS'93 conf.)	Greece
TC6	5-6 Apr 93	Versailles
	15-16 Oct 93	Sofia
	23-24 May 94	Portugal (under study)
	Oct 94	South Africa (under study)
WG6.1	May—Jun 93	Liege, Belgium
WG6.6	21 Apr 93	San Francisco
TC8	15-16 May 93	Netherlands
	8-9 May 94	Queensland, Australia
TC9	31 Jul-1 Aug 93	Farnham, U.K.
WG9.2	22-23 May 93	Namur, Belgium
WG9.6	5-7 Mar 93	Hamburg
WG10.2	26-28 Apr 93 (during CHDL conf.)	Ottawa
WG10.4	Jun 93	Toulouse region, France
WG10.5	6 Apr 93	Grenoble
TC11	9-10 May 93 (with IFIP/SEC)	Toronto
WG12.2	Apr 93 (during conf.)	Vienna
WG12.4	16 Apr 93	Stanford. California
WG13.1	24-29 Apr 93 (with INTERCHI'93 conf.)	Amsterdam

* Some meetings are scheduled in conjunction with Working Conferences, for which the conference dates are listed.

Will TC and WG chairmen kindly keep the Secretariat advised of the dates and locations of their future administrative meetings and also send a copy of the minutes to the Secretariat.

NEW IFIP PUBLICATIONS FROM NORTH-HOLLAND

Professional Development of Information Technology Professionals

Proceedings of the IFIP WG 3.4 Working Conference, Singapore, 13-17 July 1992

edited by B.Z. Barta, A. Goh *and* L. Lim

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Protocol Test Systems, V

Proceedings of the IFIP TC6/WG6.1 Fifth Working Conference, Montreal, Quebec, Canada, 28-30 September 1992

edited by **G. v. Bochmann, R. Dssoull** *and* **A. Das**

IFIP Transactions C: Communication Systems Volume C-11

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Higher Order Logic Theorem Proving and its Applications

Proceedings of the IFIP TC10\WG10.2 Workshop, Leuven, Belgium, 21-24 September 1992

edited by **L.J.M. Claesen** *and* **M.J.C. Gordon**

IFIP Transactions A: Computer Science and Technology Volume A-20

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Formal Description Techniques, V

Proceedings of the TC.6/WG 6.1 Fifth International Conference on Formal Description Techniques for Distributed Systems and Communications Protocols, FORTE '92, Perros-Guirec, France, 13-16 October, 1992

edited by **M. Diaz** *and* **R. Groz**

IFIP Transactions C: Communication Systems Volume C-10

1993 xvi + 508 pages
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Integrated Network Management, Ill

Proceedings of the IFIP TC6N/WG6.6 Third International Symposium, San Francisco, California, USA, 18-23 April 1993

edited by **H.-G. Hegering** *and* **Y. Yemini**

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Engineering for Human-Computer Interaction

Proceedings of the IFIP TC2/WG2.7 Conference, Ellivuori, Finland, 10-14 August 1992

edited byJ. **Larson** *and* **C. Unger**

IFIP Transactions A: Computer Science and Technology Volume A-18

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Protocols For High-Speed Networks, Ill

Proceedings of the IFIP WG6.1/WG6.4 Third International Workshop, Stockholm, Sweden, 13-15 May 1992

edited by **B. Pehrson, P. Gunningberg** *and* **S. Pink**

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Integration in Production Management Systems

Proceedings of the IFIP WG5.7 Working Conference, Eindhoven, The Netherlands, 24-27 August 1992

edited by **H.J. Pels** *and* **J.C. Wortmann**

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1992 xvi + 352 pages
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Automated Reasoning

Proceedings of the IFIP TC12/WG12.3 International Workshop, Beijing, P.R. China, 13-16 July 1992

edited by Z. **Shi**

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Database Security, VI: Status and Prospects

Results of the IFIP WG11.3 Workshop, Vancouver, Canada, 19-21 August 1992

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Information Processing 92

Proceedings of the IFIP 12th World Computer Congress, Madrid, Spain, 7-11 September 1992 (in three volumes)

edited by **J. van Leeuwen, R.M. Aiken** *and* **F.H. Vogt**

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MARCII 93

CALENDAR 0F EVENTS

(continued from page 16)

Event	Date	Location	Sponsored by
Work. Conf. on *The Open Systems Future: Leveraging the LAN*	29 Aug-2 Sep 93	Perth, Australia	**IFIP** WG8.4/ Curtin Univ., ACS
Thirteenth **IJCAII** Intl. Joint Conf. on *Artificial Intelligence — IJCAII* '93	29 Aug-3 Sep 93	Chambery, France	IJCAII
Work. Conf. on *Statistical Aspects of Stochastic Programming*	4-9 Sep 93	Prague	**IFIP** WG7.7
Work. Conf. on *Lessons from Learning*	6-8 Sep 93	near Geneva	**IFIP** WG3.3, NEUROPE Lab.
Nineteenth **EUROMICRO** Conf. on *Open System Design: Hardware, Software, and Applications — EUROMICRO'93*	6-9 Sep 93	Barcelona	EUROMICRO
VLSI '93	7-10 Sep 93	Grenoble	**IFIP** WG10.5
Work. Conf. on *Fractals — FRACTAL 93*	7-10 Sep 93	Kingston upon Thames, U.K.	**IFIP**
Second Intl. Conf. on *Open Distributed Processing — ICODP2*	14–? Sep 93	Berlin	**IFIP** TC6, GMD-Fokus
Workshop on *Applications of the Reed-Muller Expansion in Circuit Design*	16-18 Sep 93	Hamburg	**IFIP** WG10.5
Fifth Intl. Conf. on *Advances in Production Management System — APMS '93*	28-30 Sep 93	Athens	**IFIP** WG5.7 HMA IPM
Work. Conf. on *Software Engineering Education*	28 Sep-2 Oct 93	Kowloon, Hong Kong	**IFIP** WG3.4
Workshop on *Large Scale Stochastic Programs: Applications and Solutions*	1–? Oct 93	Yalta, Ukraine	**IFIP** WG7.7
Intl. Workshop on *Distributed Systems: Operations and Management — DSOM'93*	5-6 Oct 93	Long Branch, New Jersey	**IFIP** WG 6.6/ IEEE COMSOC CNOM
Work. Conf. on *Computer Support for Environmental Impact Assessment — CSEIA'93*	6-8 Oct 93	Como, Italy	**IFIP** WG5.11, CIRITA
Conf. on *Network Information Processing Systems — INFONET'93*	12-14 Oct 93	Sofia	**IFIP** TC6/Bulgarian Acad. of Sci.
Seventh Work. Conf. on *Database Security*	31 Oct–? 93	Huntsville, Alabama	**IFIP** WG11.3
Intl. Workshop on *The Design of Information Infrastructure Systems for Manufacturing — DIISM*	8-10 Nov 93	Tokyo	**IFIP** WG5.3 et al.
Thirteenth Intl. Conf. on *Information Systems — ICIS* '93	5-8 Dec 93	Orlando, Florida	**ICIS, SIM / IFIP** TC8
Work. Conf. on *Numerical Analysis and Optimization*	15-17 Dec 93	Rabat, Morocco	**IFIP** WG7.2
Intl. Workshop on *Stochastic Programming: Algorithms and Models*	18-20 Jan 94	Lillehammer, Norway	**IFIP** WG 7.7/ MPS NCS
Work. Conf. on *The Impact of Informatics on Society: Key Issues for Developing Countries*	21-23 Feb 94	Havana	**IFIP** WG 9.4/ INSAC
Workshop on *Stochastic Methods and Global Optimization*	? Mar 94	PalangalTrakai, Lithuania	**IFIP** WG7.7
PROCOMET'94	6-10 Jun 94	San Miniato, Italy	**IFIP** TC2 WG2.2
Work. Conf. on *Promoting A New Partnership: Children, Teachers, and Technology*	27 **Jun-1 Jul** 94	Philadelphia	**IFIP** TC3 WG3.5
Conf. on *Asia Pacific Information Technology in Training and Education — APITITE'94*	28 Jun-2 Jul 94	Brisbane, Australia	**IFIP** TC3
IMACS World Congress '94	? Jul 94	Atlanta, Georgia	IMACS
IFIP Congress '94 — Thirteenth World Computer Congress	**28 Aug-2 Sep 94**	**Hamburg**	**IFIP**
Workshop on *Expert Systems in Computer Integrated Manufacturing*	? Sep 94	Kiev, Ukraine	**IFIP** WG5.3
Work. Conf. on *Comparative Review of Information Systems Methodologies Revisited — CRIS'94*	5-7 Sep 94	Maastricht, Netherlands	**IFIP** WG8.1
Symp. on *Robot Control — SYROCO'94*	19-21 Sep 94	Capri, Italy	IFAC/ **IFIP** WG7.6, IMACS
Work. Conf. on *Integrating Information on Technology into Education*	? Oct 94	Spain	**IFIP** WG3.1
Eighth Work. Conf. on *Database Security*	31 Oct–? 94	Hamburg	**IFIP** WG11.3
Work. Conf. on *Change-Point Detection*	? 94	Vilnius, Lithuania	**IFIP** WG7.1
Work. Conf. on *Approximations and Applications in Stochastic Programming*	? 94	Tallinn, Estonia	**IFIP** WG7.7 IIASA
World Conf. on *Computers in Education — WCCE '95*	23-28 Jul 95	Birmingham, U.K.	**IFIP** TC3 BCS
Eighth **IMIA** World Congress on *Medical Informatics — MEDINFO'95*	10-14 Sep 95	Sao Paolo, Brazil	IMIA
IFIP Congress '96 — Fourteenth World Computer Congress	**2-6 Sep 96**	**Canberra, Australia**	**IFIP**
Thirteenth *IFAC World Congress '96*	? 96	San Francisco	IFAC

Please see page 12 for schedule of **IFIP** administrative meetings.
The **IFIP** Secretariat can furnish details of most of the events listed.

CALENDAR OF EVENTS

Event	Date	Location	Sponsored by
Work. Conf. on *Systems Engineering in Public Administration*	3-5 Mar 93	Luneburg, Germany	IFIP WG 8.5/ GI, ACS
Work. Conf. on *Computational Techniques of Stochastic Programming*	9-13 Mar 93	Visegrad, Hungary	IFIP WG7.7/ IFAC
Workshop on *Interfaces in Industrial Systems for Production and Engineering — ISPE'93*	15-17 Mar 93	Darmstadt, Germany	IFIP TC5/ WG5.2/5.3/5.7/5.10
Fifth Work. Conf. on *Reliability and Optimization of Structural Systems*	24-26 Mar 93	Takamatsu-Shi, Japan	IFIP WG7.5
African Autumn School on *Systems Programing: Languages and Applications*	29 Mar-2 Apr 93	Pretoria, South Africa	IFIP TC2 WG2.4 CSSA, U. of Pretoria
Work. Conf. on *CAD Developments for Accelerated Manufacturing and Marketing*	30-? Mar 93	Haifa	IFIP WG5.2
Intl. Symp. on *Autonomous Decentralized Systems — ISADS '93*	30 Mar-1 Apr 93	Kawasaki, Japan	IEEE, IPSJ, SICE/ IFIP TC10, TC6, WG5.3
Third Intl. Symp. on *Integrated Network Management — ISINM'93*	18-23 Apr 93	San Francisco	IES / IFIP WG 6 6 IEEE CNOM
First Intl. Work. Conf. on *Health Informatics in Africa — HELINA* '93	19-23 Apr 93	Ile-Ife, Nigeria	IMIA, IFIP WG9.4
Work. Conf. on *Knowledge Based Hybrid Systems Engineering and Manufacturing — KNOWHSEM'93*	20-22 Apr 93	Budapest	IFIP WG5.3/IFAC
Intl. Conf. on *Human Factors in Computing Systems — INTERCHI93*	24-29 Apr 93	Amsterdam	ACM SIGCHI/ IFIP TC13
Intl. Conf. on *Hardware Description Languages and Their Applications — CHDL'93*	26-28 Apr 93	Ottawa	IFIP WG10.2
Ninth Intl. Conf. on *Computer Security — IFIP/SEC'93*	12-14 May 93	Toronto	IFIP TC11
Work. Conf. on *Information Systems Development: Human, Social and Organizational Aspects*	17-19 May 93	Noordwijkerhout, NL	IFIP WG8.2
Intl. Conf. on *CAD/CAM, Robotics and Factories of the Future*	17-19 May 93	St. Petersburg, Russia	ISPE, IFIP WG5.3
Work. Conf. on *Facing the Challenge of Risk and Vulnerability in an Information Society*	20-22 May 93	Namur, Belgium	IFIP WG9.2 CITA
Work. Conf. on *Correct Hardware Design and Verification Methods — CHARME'93*	24-26 May 93	Arles, France	IFIP WG 10.2/U. de Provence
Thirteenth Intl. Symp. on *Protocol Specification, Testing and Verification*	25-28 May 93	Liege, Belgium	IFIP WG6.1
Intl. Conf. on *Industrial Engineering and Production Managament — IEPM'93*	2-4 Jun 93	Mons. Belgium	FUCAM/INRIA, IFIP WG5.7
Open Conf. on *Informatics and Changes in Learning*	7-11 Jun 93	Gmunden, Austria	IFIP TC3 (WG3.1 and 3.5)
Sixth Conf. on *Functional Programming Languages and Computer Architecture — FPCA'93*	9-11 Jun 93	Copenhagen	ACM, SIGPLAN/SIGARCH/ MIT, DIKU, IFIP WG 2.8
Workshop on *Stochastic Optimization: Numerical Methods and Technical Applications*	15-17 Jun 93	Munich	IFIP WG 7.7/GAMM, UniBW
First Work. Conf. on *Development and Implementation of Computer-Based Information and Communication Networks — NetWORKing*	16-18 Jun 93	Vienna	IFIP WG9.1
Workshop on *Formal Design Methods for Computer-Aided Design*	16-19 Jun 93	Tallin, Estonia	IFIP WG5.2
Twenty-third Intl. Symp. on *Fault-Tolerant Computing — FTCS 23*	22-24 Jun 93	Toulouse, France	IEEE, LAAS-CNRS, AFCET, IFIP WG10.4
Work. Conf. on *Geometric Modelling in Computer Graphics — GMCG*	28 Jun-2 Jul 93	Genoa, Italy	IFIP WG5.10, CNR
Sixteenth Open Conf. on *System Modelling and Optimization*	5-9 Jul 93	Compiegne, France	IFIP TC7
Work. Conf. on *Computer-Mediated Education of Information Technology*	12-16 Jul 93	Soest, Germany	IFIP WG3.4
Thirteenth Triennial IFORS Conf. on *Operations Research — IFORS '93*	12-16 Jul 93	Lisbon	IFORS
IFAC World Congress '93	19-23 Jul 93	Sydney	IFAC
Work. Conf. on *Visualization in Scientific Computing: Uses in University Education*	28-30 Jul 93	Irvine, California	IFIP WG3.2
Work. Conf. on *Security and Control of IT in Society*	12-17 Aug 93	Stockholm	IFIP WG9.6
Work. Conf. on *Intellectual Property Rights in Computer Software and Their Impact on Developing Countries*	20-21 Aug 93	Bangalore, India	IFIP WG 9.4/CSI, IIS
Intl. Conf. on *Teleteaching '93*	20-25 Aug 93	Trondheim, Norway	IFIP TC3, ICDE
Third Intl. Conf. on *CAD — Graphics '93*	23-26 Aug 93	Beijing	CCF, IFIP WG5.10

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IFIP Congress '94 — 13th World Computer Congress	28 Aug-2 Sep 94	Hamburg, Germany	IFIP
IFIP Congress '96 — 14th World Computer Congress	2-6 Sep 96	Canberra, Australia	IFIP

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