

it would be possible to put simply

```
if <condition 1> then
  <calculation concerning condition 2>
endif <condition 2> then
  <action 1>
else
  <action 2>
```

where it is assumed that <condition 2> is expensive to calculate, or is undefined when

<condition 1> is false. It would be advantageous if the **andif** could optionally follow immediately after the **if** <condition> without the intervening **then** <statement> so that the **andif** could be used simply to explicitly specify partial evaluation of a logical condition.

Aside from Pascal, I have met with success in incorporating the **andif** clause into a FORTRAN pre-processor which converts block structures in the input code into con-

ditional GOTOs in the output code, and I have frequently found this construction to be of use.

Yours faithfully

A. J. WLODARCZYK

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Announcements

13-15 SEPTEMBER 1989

EC-CSCW '89, The Hilton Hotel, Gatwick, London

The First European Conference on Computer-Supported Cooperative Work

EC-CSCW '89 will be a multi-disciplinary forum for the exchange of ideas and information on the use of computers to support cooperative working. EC-CSCW '89 should be of interest to computer scientists, psychologists, sociologists, anthropologists, education researchers, human factors specialists, students of business or management, and all who are interested as workers, professionals or academics in how computers can be used to enhance or transform cooperative work.

EC-CSCW '89 will also offer:

- workshops on topics such as CSCW and organisational forms, theoretical models of cooperative work, CSCW and education, CSCW and medicine, artificial intelligence and CSCW;
- panel discussion on the future of CSCW research in Europe;
- opportunities for informal meetings between participants.

For application forms and further details contact:

Lorna Meek, EC-CSCW '89 Secretariat, Computer Sciences Company Ltd, Computer Sciences House, Brunel Way Slough SL1 1XL, UK. Tel: +44 753-73232 (0753-73232 UK local calls). JANET: meek@cs.qmc.ac.uk.

Apply promptly as space will be limited!

18-20 SEPTEMBER 1989

International Conference on Software Engineering for Real-time Systems, Cirencester.

The Second International Conference on Software Engineering for Real-time Systems will be held at the Royal Agricultural College Cirencester from 18 to 20 September 1989.

The Conference will be structured to provide a range of specialist sessions, workshops and poster sessions. The programme will enable major issues in the development and implementation of real-time systems to be discussed and debated in the informal and comfortable environment of the Royal Agricultural College.

The keynote address will be presented by Mr R. Haslam, Head of Systems Computing at British Aerospace Warton, addressing the design needs of future software systems in high-performance real-time equipment.

Two workshop sessions one on CASE tools and the other on transputer applications, will provide an opportunity for an assessment of the current utilisation of both the technology and its penetration into products.

Specialists at the Conference will represent major issues in modern systems development, particularly KBS real time and system specification. Concurrent systems, reflecting advances in both physical architectures and user environments will be presented, while papers on implementation technology will also be featured.

Further information on the Conference is available from:

SERTS Secretariat, IEE Conference Services, Savoy Place, London WC2R 0BL. Tel: 01-240 1871, ext. 222.

20-22 SEPTEMBER 1989

Managing Geographical Information Systems and Databases, Lancaster University

Format

Papers, software demonstration, conference dinner

Keynote speaker

Professor Peter Burrough, University of Utrecht

This conference, hosted by the North West Regional Research Laboratory, is one of the first to be held in this important field since the publication of the Chorley Report into handling geographical information.

The objectives of the conference are:

- △ to explore the practicalities and pitfalls of GIS management;
- △ to provide a broad introduction for a wide range of users;
- △ to exchange ideas and learn what database management systems can do for you;
- △ to bring together experts and non-experts from a wide range of activities;
- △ to stimulate discussion on future trends in database management for geographic data.

'There is a need to manipulate very large volumes of data and to integrate different sets whilst maintaining tolerable response times. This requires major developments in basic machine hardware, data structure, high density and efficient network facilities.'

Chorley Report, 1987

Conference themes

- △ Developments in databases for Geographical Information Systems - theory and practice.
- △ Databases for environmental data.
- △ Geographical database management in the commercial sector.
- △ Databases and their management by the utilities and local government.

Speakers from:

Thames Water Authority
Pinpoint Analysis Limited
Marconi Speech and Information Systems
University of Kent
Institute of Hydrology
Wessex Water Authority
CACI
LAMSAC
University of Edinburgh
Devon County Council
Soil Survey of England
Lancashire County Council
University of Newcastle
Doric Computer Systems
Hampshire County Council
Nature Conservancy Council
North West Regional Research Laboratory

If you have any further enquiries please contact:
Miss Jeanette Davies, C.I.D.B., University House, Lancaster LA1 4YW. Tel: (0524) 65201, ext. 4528. Fax 0524-63806.

5-6 OCTOBER 1989

A working conference on Data and Knowledge Base Integration, University of Keele

This first European conference on integrating data and knowledge bases is being organised by the Data and Knowledge Engineering (DAKE) Centre at the University of Keele, in cooperation with Grafton Database Consultants.

Conference objectives

The programme will be oriented towards industrial and commercial issues. Invited experts will discuss current projects. An important objective of the conference will be to discuss applications which are possible now and the directions of future developments. There will also be an exhibition of industrial demonstrations.

Who Should Attend?

Conventional database managers who wish to

know how new developments in knowledge-based systems can help them.

Knowledge-based systems builders who wish to know how their work is linked with the world of data processing, and what data processing has to teach them.

The list of invited speakers includes: Mr Charles Church (Coopers & Lybrand Associates); Mr Jim Kieley (TSB Group plc, Technology Division); Professor Madan Singh (UMIST).

The entire conference proceedings will be video-taped, and the best papers, appended with questions and discussion, will be published after the conference. Topics of interest include intelligent front ends to database systems; expert systems for database development; mixed knowledge and databases; database methods for knowledge handling.

Areas of interest for applications include **banking, finance, information services, insurance, manufacturing, medicine, retailing, travel and transportation.**

Further information

If you wish to receive further information on this event, please contact Professor S. Misbah Deen or Dr G. P. Thomas, DAKE Centre, University of Keele, Keele, Staffs. ST5 5BG. Tel: (0782) 621111. Fax: (0782) 613847. Email (JANET): deen@uk.ac.kl.cs or glan@uk.ac.kl.cs.

7-11 JANUARY 1990

Numeta 90

The Third International Conference on Advances in **Numerical Methods in Engineering: Theory and Applications**, University College Swansea, U.K.

Sponsored by

- The Institute for Numerical Methods in Engineering
- University College Swansea
- NAFEMS (National Agency for Finite Element Methods and Standards)

Scope and Objectives of the Numeta Conference Series

Numeta 90 is the third conference in the series, the previous two successful meetings being held in Swansea in 1985 and 1987. The objective of the NUMETA series is to provide a forum for the presentation and dissemination of new and recent advances in numerical modelling and related computer-based algorithms. Due to their versatility, numerical techniques have continued to expand and diversify into all the major fields of scientific and engineering studies. Particular emphasis will be placed on the linking of new and recent advances in theory and application.

It is also a prime concern of the Numeta series that areas of future potential are highlighted and that the opportunity is taken to influence those working in the many fields of numerical methods. In this respect the following topics will form the basis of NUMETA 90.

- Numerical methods in engineering analysis and design – static, dynamic and transient response of soils/structures/fluids.
- Structural optimisation; sensitivity analysis, inverse problems.

- Constitutive modelling of engineering materials – composites, high technology materials, geomaterials, ceramics, etc.
- Computational fluid dynamics – incompressible and high speed viscous flows.
- Reliability, validation, benchmarking and quality assurance.
- Accuracies, errors and mesh generation/adaptation, engineering graphics and visualisation techniques.
- Parallel processing, implementation of new algorithms, transputer applications.
- Case histories of applications.

Location

The conference will be hosted by the University College of Swansea and will be held in the recently completed Holiday Inn complex, which is located within Swansea's new maritime quarter. Swansea is easily accessible from all parts of the U.K., and London Heathrow is less than three hours away by train or car.

The city offers a fine new shopping centre and is also a favourite base for those seeking the quiet unspoilt countryside or the many beaches and secluded bays which offer spectacular views, coastal walks, wildlife parks, as well as a wealth of natural leisure facilities.

The area also abounds in historic buildings ranging from Stone Age burial chambers, early Christian settlements to mediaeval churches, as well as Norman and Plantagenet castles.

A full social programme of visits and tours will be arranged for delegates and their companions, and will include a reception, conference banquet and traditional Celtic entertainment.

Accommodation

A block reservation at discount prices has been obtained within the newly completed Holiday Inn complex, and attendees are advised to take advantage of this offer. The Hotel is centrally located and is within easy reach of the University campus and local facilities. For further information on accommodation please contact the organisers. Deadline for reduced-rate registration 31 October 1989

Conference fees

The registration fees, inclusive of reception, conference proceedings and social programme are as follows:

	Before 31.10.89	After 31.10.89
Authors	£260	£290
Delegates	£280	£310
Students	£160	£190

Cheques should be made payable to: 'NUMETA Conference, Swansea'.

Please send to: John Middleton or G. N. Pande, Department of Civil Engineering, University College of Swansea, Singleton Park, Swansea SA2 8PP, U.K. Tel: (0792) 295517/295514. Telex: ULSWAN G 48358. Fax: (0792) 29561.

11-13 JUNE 1990

International Conference On Systems Management '90, Hong Kong, organised by the Institute of Management Consultants in co-

operation with the O.R. Society of Hong Kong

Call for Papers

This is the first conference in Hong Kong devoted to systems management. The aim of the conference is to bring together people from the academic world and industry of the East and West, who are interested in problems related to management consultancy. The conference will provide a forum for the presentation and discussion of both empirical and theoretical aspects of systems management. The following themes will be emphasised.

Systems concepts

- Systems concepts for problem solving
- Systems methodologies
- Systems practices
- Systems performance evaluation

Operations management

- CAD-CAM applications
- Inventory management
- Production management
- Distribution management

OR in business management

- Corporate planning
- Finance and banking
- Marketing analysis and research
- Investment analysis

Operational research

- Mathematical programming
- Combinatorial optimisation
- Multi-criteria analysis
- Applied stochastic processes
- Queuing theory and simulation
- Time series analysis/forecasting

Information technologies

- Artificial intelligence
- Expert systems
- Management information systems
- Decision support systems
- Database design and management
- Office automation
- Micro-computer applications

Papers should be no longer than 5000 words (about 20 double-spaced pages). The covering letter should indicate the address of the responsible author for further correspondence. The names of the authors and their affiliations should only appear on the cover-sheet of the paper. Please include three keywords for your paper. Three copies of each paper should be submitted to:

Dr Chuk Yau, Computer Science Department, the Chinese University of Hong Kong, Shatin, Hong Kong. Tel: 0-6952795, telex: 50301 CUHK HX. Fax: (852) 0-6954234. email: hkucs!cucsdlcyau@uunet.uu.net.

Important dates

Deadline for paper submission: **20 November 1989**

Notification of acceptance: **15 January 1990**

Camera-ready copy due: **15 February 1990**