

```

begin
  layers [current_l].call (current_p);
  processes [current_p].push(l);
  layers [l].enter (current_p)
end
else begin
  processes [current_p].inter_module_call (home[l]);
  {send an interrupting signal 'ARRIVE'
   to the 'home [l]' module,
   with parameter 'orig [l]';
   i:=0;
   repeat
     {read 'reply' from 'home [l]';
      i:=i+1
    until (i = hand_shake_timeout) or (reply ≠ none);
    if reply = none then {ERROR}
    else begin
      layers [current_l].call (current_p);
      active_calls.insert(current_p, home[l], reply)
    end
    end ;
    choose
  end ;
  interrupt ARRIVE
    (m : module_number;
     l : layer_number);
  var ag : agent_number;
  begin
    {get a free agent 'ag' from the table 'free_agents';
     {send reply 'ag' to the module 'm';
     process [ag].agent_start(m,l);
     layers [l].enter(ag);
     choose
    end ;
  procedure entry RETURN ;
  var l : layer_number;
  var m : module_number;
  var reply : agent_number;
  var i : 0..hand_shake_timeout;

```

```

begin
  layers [current_l].return(current_p);
  processes [current_p].pop(l,m);
  if m = own then layers [l].leave(current_p)
  else begin
    {send an interrupting signal 'LEAVE' to the module
     with parameter 'current_p';
    i:=0;
    repeat
      {read 'reply' from 'm';
      i:=i+1
    until (i = hand_shake_timeout) or (reply ≠ none);
    free_agents [current_p]:= true
    end ;
    choose
  end ;
  interrupt LEAVE (m : module_number;
    ag : agent_number);
  var p : process_number;
  var l : layer_number;
  begin
    active_calls_remove(m,ag,p);
    processes [p].inter_module_return(m,l);
    {send reply other than 'none' to the module 'm';
    layers [l].leave(p);
    choose
  end ;
  procedure entry DELAY;
  begin
    layers [current_l].delay;
    choose
  end ;
  procedure entry RESUME (p : process_number);
  begin
    layers [current_l].resume(p);
    choose
  end ;
begin ... end.

```

## Announcements

5-8 JANUARY 1992

### Second International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, Florida

#### Approach of the Symposium

The International Symposium on Artificial Intelligence and Mathematics is the second of a biennial series featuring applications of mathematics in artificial intelligence as well as artificial intelligence techniques and results in mathematics. There has always been a strong relationship between the two disciplines; however, the contact between practitioners of each has been limited, partly by the lack of a forum in which the relationship could grow and flourish. This symposium represents a step towards improving contacts and promoting cross-fertilisation between the two areas. The editorial board of the *Annals of Mathematics and Artificial Intelligence* serves as the permanent organising committee for the series of Symposia.

#### Sponsors

The symposium is sponsored by Florida Atlantic University and IJCAI. Additional funding is pending. Partial travel subsidies may be available to young researchers.

#### Information

Contact Frederick Hoffman, Florida Atlantic University, Department of Mathematics, PO Box 3091, Boca Raton, FL 33431, USA (E-mail: hoffman@acc.fau.edu or hoffman@fauvax.bitnet) for further information and to receive future announcements.

25 and 26 MAY 1992

Conference on Eiffel, Darmstadt, Germany.

Organiser German chapter of the ACM e.V./Gesellschaft für Informatik e.V., FA PS and PE.

Information: Prof. Dr Hans-Jürgen Hoffmann, University at Darmstadt, Department of Computer Science, FG PÜ, Alexanderstr. 10, D-6100 Darmstadt, Germany. Tel: +49 6151 163410. Fax: +49 6151 165550. E-mail: EARN/BITNET: XIPHJHO@DDATHD21.

29 June to 3 JULY 1992

Second International Conference on the Mathematics of Program Construction, Oxford, UK

#### Call for Papers

The second International Conference on the Mathematics of Program Construction is to continue the theme set by the first – the use of crisp, clear mathematics in the discovery of

algorithms. But recent developments within this philosophy have shown that the approach is remarkably diverse, applying not only to sequential programs but also to parallel or concurrent applications, real-time and reactive systems, and even designs realised directly in hardware. In this the second conference, therefore, it is hoped to take advantage of the ever-widening impact of precise mathematical methods in program development.

The second conference is to be held at St Catherine's College which, while situated only a few minutes' walk from the city centre, lies on Oxford's famous 'punting' river (flat-bottomed boats propelled by poles) in bucolic surroundings.

Attendance will be limited to 150-200. Submissions of papers (5 copies) should be sent to Carroll Morgan, clearly marked MPC, by 20 January 1992; acceptance will be notified from 9 March; and final camera-ready copy would in that case be due by 8 June for distribution at the conference and publication.

Although there is no page limit on submissions, the usual advantages of brevity are strongly commended.

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