

# Pascal News

(FORMERLY PASCAL NEWSLETTER)

NUMBER 12

COMMUNICATIONS ABOUT THE PROGRAMMING LANGUAGE PASCAL BY PASCAL

JUNE, 1978

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## POLICY: PASCAL USER'S GROUP (78/04/15)

Purposes: Pascal User's Group (PUG) tries to promote the use of the programming language Pascal as well as the ideas behind Pascal. PUG members help out by sending information to Pascal News, the most important of which is about implementations (out of the necessity to spread the use of Pascal).

The increasing availability of Pascal makes it a viable alternative for software production and justifies its further use. We all strive to make using Pascal a respectable activity.

Membership: Anyone can join PUG: particularly the Pascal user, teacher, maintainer, implementor, distributor, or just plain fan. Memberships from libraries are also encouraged.

See the ALL PURPOSE COUPON for details.

### FACTS ABOUT Pascal, THE PROGRAMMING LANGUAGE:

Pascal is a small, practical, and general purpose (but not all-purpose) programming language possessing algorithmic and data structures to aid systematic programming. Pascal was intended to be easy to learn and read by humans, and efficient to translate by computers.

Pascal has met these design goals and is being used quite widely and successfully for:

- \* teaching programming concepts
- \* developing reliable "production" software
- \* implementing software efficiently on today's machines
- \* writing portable software

Pascal is a leading language in computer science today and is being used increasingly in the world's computing industry to save energy and resources and increase productivity.

Pascal implementations exist for more than 62 different computer systems, and the number increases every month. The Implementation Notes section of Pascal News describes how to obtain them.

The standard reference and tutorial manual for Pascal is:

Pascal - User Manual and Report (Second, study edition)

by Kathleen Jensen and Niklaus Wirth

Springer-Verlag Publishers: New York, Heidelberg, Berlin

1978 (corrected printing), 167 pages, paperback, \$6.90.

Introductory textbooks about Pascal are described in the Here and There Books section of Pascal News.

The programming language Pascal was named after the mathematician and religious fanatic Blaise Pascal (1623-1662). Pascal is not an acronym.

Pascal User's Group is each individual member's group. We currently have more than 1923 active members in more than 35 countries. This year Pascal News is averaging more than 150 pages per issue.

PASCAL USER'S GROUP

USER'S

GROUP

ALL PURPOSE COUPON

\*\*\*\*\*

(78/04/15) •

Pascal User's Group, c/o Andy Mickel  
University Computer Center: 227 EX  
208 SE Union Street  
University of Minnesota  
Minneapolis, MN 55455 USA

+ Clip, photocopy, or  
+  
+ reproduce, etc. and  
+  
+ mail to this address.

// Please enter me as a new member of the PASCAL USER'S GROUP for \_\_\_ Academic year(s) ending June 30, \_\_\_\_\_ (not past 1982). I shall receive all the issues of Pascal News for each year. Enclosed please find \_\_\_\_\_. (\* Please see the POLICY section on the reverse side for prices and if you are joining from overseas, check for a PUG "regional representative." \*)

// Please renew my membership in PASCAL USER'S GROUP for \_\_\_ Academic year(s) ending June 30, \_\_\_\_\_ (not past 1982). Enclosed please find \_\_\_\_\_.

// Please send a copy of Pascal News Number(s) \_\_\_\_\_. (\* See the Pascal News POLICY section on the reverse side for prices and issues available. \*)

// My new <sup>address</sup> <sub>phone</sub> is printed below. Please use it from now on. I'll enclose an old mailing label if I can find one.

// You messed up my <sup>address</sup> <sub>phone</sub>. See below.

// Enclosed please find a contribution (such as what we are doing with Pascal at our computer installation), idea, article, or opinion which I wish to submit for publication in the next issue of Pascal News. (\* Please send bug reports to the maintainer of the appropriate Implementation listed in the Pascal News IMPLEMENTATION NOTES section. \*)

// None of the above. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other comments: \_\_\_\_\_  
From: name \_\_\_\_\_  
mailing address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
phone \_\_\_\_\_  
computer system(s) \_\_\_\_\_  
date \_\_\_\_\_

(\* Your phone number aids communication with other PUG members. \*)

JOINING PASCAL USER'S GROUP?

- membership is open to anyone: particularly the Pascal user, teacher, maintainer, implementor, distributor, or just plain fan.
- please enclose the proper prepayment (checks payable to "Pascal User's Group"); we will not bill you.
- please do not send us purchase orders; we cannot endure the paper work! (If you are trying to get your organization to pay for your membership, think of the cost of paperwork involved for such a small sum as a PUG membership!)
- when you join PUG anytime within an academic year: July 1 to June 30, you will receive all issues of Pascal News for that year unless you request otherwise.
- please remember that PUG is run by volunteers who don't consider themselves in the "publishing business." We produce Pascal News as a means toward the end of promoting Pascal and communicating news of events surrounding Pascal to persons interested in Pascal. We are simply interested in the news ourselves and prefer to share it through Pascal News, rather than having to answer individually every letter and phone call. We desire to minimize paperwork, because we have other work to do.
- American Region (North and South America): Join through PUG(USA). Send \$6.00 per year to the address on the reverse side. International telephone: 1-612-376-7290.
- European Region (Europe, North Africa, Western and Central Asia): Join through PUG(UK). Send £4.00 per year to: Pascal Users' Group/ c/o Computer Studies Group/ Mathematics Department/ The University/ Southampton SO9 5NH/ United Kingdom. International telephone: 44-703-559122 x700.
- Australasian Region (Australia, East Asia -incl. Japan): Join through PUG(AUS). Send \$A8.00 per year to: Pascal Users Group/ c/o Arthur Sale/ Dept. of Information Science/ University of Tasmania/ Box 252C GPO/ Hobart, Tasmania 7001/ Australia. International Telephone: 61-02-23 0561.

PUG(USA) produces Pascal News and keeps all mailing addresses on a common list.

Regional representatives collect memberships from their regions as a service, and they reprint and distribute Pascal News using a proof copy and mailing labels sent from PUG(USA). Persons in the Australasian and European Regions must join through their regional representatives. People in other places can join through PUG(USA).

RENEWING? (Costs the same as joining.)

- please renew early (before August) and please write us a line or two to tell us what you are doing with Pascal, and tell us what you think of PUG and Pascal News to help keep us honest. Renewing for more than one year saves us time.

ORDERING BACKISSUES OR EXTRA ISSUES?

- our unusual policy of automatically sending all issues of Pascal News to anyone who joins within an academic year (July 1 to June 30) means that we eliminate many requests for backissues ahead of time, and we don't have to reprint important information in every issue--especially about Pascal implementations!
- Issues 1, 2, 3, and 4 (January, 1974 - August, 1976) are out of print.
- Issues 5, 6, 7, and 8 (September, 1976 - May, 1977) are out of print.  
(A few copies of issue 8 remain at PUG(UK) available for £2 each.)
- Issues 9, 10, 11, and 12 (September, 1977 - June, 1978) are available from PUG(USA) all for \$10 and from PUG(AUS) all for \$A10.
- extra single copies of new issues (current academic year) are:  
\$3 each - PUG(USA); £2 each - PUG(UK); and \$A3 each - PUG(AUS).

SENDING MATERIAL FOR PUBLICATION?

- check the addresses for specific editors in Pascal News. Your experiences with Pascal (teaching and otherwise), ideas, letters, opinions, notices, news, articles, conference announcements, reports, implementation information, applications, etc. are welcome. "All The News That Fits, We Print." Please send material single-spaced and in camera-ready (use a dark ribbon and lines 18.5 cm wide) form.
- remember: All letters to us will be printed unless they contain a request to the contrary.

MISCELLANEOUS INQUIRIES?

- Please remember that we will use Pascal News as the medium to answer all inquiries, and we regret to be unable to answer individual requests.

## POLICY: PASCAL NEWS (78/04/15)

- \* Pascal News is the official but informal publication of the User's Group.

Pascal News contains all we (the editors) know about Pascal; we use it as the vehicle to answer all inquiries because our physical energy and resources for answering individual requests are finite. As PUG grows, we unfortunately succumb to the reality of (1) having to insist that people who need to know "about Pascal" join PUG and read Pascal News - that is why we spend time to produce it! and (2) refusing to return phone calls or answer letters full of questions - we will pass the questions on to the readership of Pascal News. Please understand what the collective effect of individual inquiries has at the "concentrators" (our phones and mailboxes). We are trying honestly to say: "we cannot promise more than we can do."

- \* An attempt is made to produce Pascal News 3 or 4 times during an academic year from July 1 to June 30; usually September, November, February, and May.
- \* ALL THE NEWS THAT FITS, WE PRINT. Please send material (brevity is a virtue) for Pascal News single-spaced and camera-ready (use dark ribbon and 18.5 cm lines!).
- \* Remember: ALL LETTERS TO US WILL BE PRINTED UNLESS THEY CONTAIN A REQUEST TO THE CONTRARY.
- \* Pascal News is divided into flexible sections:

POLICY - tries to explain the way we do things (ALL PURPOSE COUPON, etc.).

EDITOR'S CONTRIBUTION - passes along the opinion and point of view of the editor together with changes in the mechanics of PUG operation, etc.

HERE AND THERE WITH PASCAL - presents news from people, conference announcements and reports, new books and articles (including reviews), notices of Pascal in the news, history, membership rosters, etc.

APPLICATIONS - presents and documents source programs written in Pascal for various algorithms, and software tools for a Pascal environment; news of significant applications programs. Also critiques regarding program/algorithm certification, performance, standards conformance, style, output convenience, and general design.

ARTICLES - contains formal, submitted contributions (such as Pascal philosophy, use of Pascal as a teaching tool, use of Pascal at different computer installations, how to promote Pascal, etc.)

OPEN FORUM FOR MEMBERS - contains short, informal correspondence among members which is of interest to the readership of Pascal News.

IMPLEMENTATION NOTES - reports news of Pascal implementations: contacts for maintainers, implementors, distributors, and documentors of various implementations as well as where to send bug reports. Qualitative and quantitative descriptions and comparisons of various implementations are publicized. Sections contain information about Portable Pascals, Pascal Variants, Feature Implementation Notes, and Machine Dependent Implementations.

- \* Volunteer editors are (addresses in the respective sections of Pascal News):

Andy Mickel - editor

Jim Miner and Tim Bonham - Implementation Notes editors

Sara Graffunder - Here and There editor

Rich Stevens - Books and Articles editor

Rich Cichelli - Applications editor

Tony Addyman - Standards editor

Scott Bertilson, John Easton, and Steve Riesman - Tasks editors



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The DEADLINE for PUGN 13/14 is August 15. Tony Addyman is now PUG's new Standards Editor. Don't forget to renew if you need to--check your mailing label.

Personal Observations

- 1) Pascal-P has enabled a great many people to learn about compilers who otherwise would never have had the chance. Do you realize the implications? These same people (myself included) will never be able to look at other compilers for other languages (especially the ones peddled by manufacturers) the same way from now on. Our critical eyes probably won't be able to endure them either.
- 2) Please see the Books and Articles section for the article entitled: "Ambiguities and Insecurities in Pascal," which is the first, good, critical article about Pascal to appear (yes, we know about Habermann's article). The most memorable passage is in the conclusion:  
"...Because of the very success of Pascal, which greatly exceeded the expectations of its author, the standards by which we judge such languages have also risen. It is grossly unfair to judge an engineering project by standards which have been proved attainable only by the success of the project itself, but in the interests of progress, such criticism must be made."
- 3) Many people are now decrying the lack in Pascal of "business-oriented" language features such as indexed-sequential access methods for file processing, packed decimal data types, and other inefficient ways of doing computing. I would suggest a Business Procedure Library similar to the IMSL and NAG mathematical and statistics libraries for numerical (old term = 'scientific') people. We should use the simple, but versatile tools (language features) we already have to build what we need for other things.
- 4) We need more news (notices, articles, opinions, etc.) for Pascal News about teaching experiences with Pascal.

How is Pascal User's Group? (\*new members especially please read this\*)

PUG has now grown too large to handle it in the personal manner we have in the past. Membership stands at 2147+. We used to be extremely efficient, because I, for one, could keep it all in my head and remember who was a member from where, which joined when and how. It was like stamp collecting. We have resorted to dropping all kinds of services we never promised to do but nevertheless did. Now when a new member joins, all he or she receives is backissues, and no personal reply, receipt, or answers to questions. PUG is another example illustrating limits to growth.

The event that seems to have changed the situation permanently was the first full-page article about Pascal in the April 27 issue of Computerworld--the largest and most widely-read computer journal in the United States. The following Monday we received 83 pieces of mail in one day (old record for a single day was 39 pieces, while typical mail in the past averaged 20-30 pieces/week.)! Do you realize how much time it takes to open 83 pieces of mail? Remember, we don't have secretaries.

PUG(USA) has managed to break even in the past--including this year--but we must raise the rates to \$6 per year. Postage and printing costs keep rising. David Barron at PUG(UK) announces new rates of 4 per year and Arthur Sale at PUG(AUS) announces a \$A2 decrease (now \$A8). Please see their notices following. At least now our rates are more normalized. We have kept the rate low to attract members and to spread Pascal as fast and as far as possible. We as a group are an exceptionally broad base of people, and I think that is a real accomplishment. And remember, we accept no advertising.

We have always tried to keep this operation simple: no special services, no special rates for special mailing, etc. I know I just wouldn't have time otherwise. I set up PUG so that it can be dismantled within one week and all money refunded! Charging a little more money this year will allow us to hire a part-time secretary to handle the growing clerical workload. The most time-consuming process is to process memberships and update the mailing list. We usually batch 3 or 4 weeks of mail before we process it!

*- Andy* 78/05/02.

**Editor's Contribution**

Dear Andy,

Here is our cost estimates for Australasian distribution for 1978/9. As you will see, I am recommending a lowering of the fee to \$A8.00. Last year's fee was based on estimates from our printery which in the even proved slightly high, and of course the amalgamation of issues 9 and 10 saved us postage. Consequently we have a small reserve, and I have been able to budget for exactly balancing costs with subs in 1978/79, carrying any inflation in postage and the costs of carrying stocks of back copies out of the reserve.

There may be some request for refunds from people who paid for two years. I'd rather not be involved in sending out cheques, and I suggest we treat this the same as with people who pay for two years in a price rise situation: we don't ask for more so we shouldn't give refunds.

<u>Printing cost per issue</u>	\$1.00
<u>Postage</u> :	
Australia	\$0.70
New Zealand	\$1.20
Singapore	\$2.00
averaged over subscribers	<u>\$1.00</u> approx.
<u>Cost per issue</u>	\$2.00
<u>Recommended subscription for 1978/79</u>	= \$8.00 (Australian)

Yours sincerely,

*Arthur Sale*

A.H.J. Sale,  
Department of Information Science.

PASCAL USERS GROUP - European Region Subscriptions 1978/79

We regret that steep increases in the cost of printing compel us to increase the subscription to £4 PER ANNUM.

We regret the increase, but even at this figure we shall only just break even. Without volunteer labour, charges would be much higher.

Please remember that cheques must be in sterling, drawn on a British (or Irish) bank Processing sterling cheques drawn on foreign banks, or non-sterling cheques is prohibitively expensive.

If you have a Post-Giro account, you can pay by direct transfer into our account number 28 513 4000.

RENEWALS take time, which is precious. Why not subscribe for two or more years?

( \*\*\*\*\* )  
REMEMBER TO RENEW YOUR PUG  
MEMBERSHIP. NOTE THAT THE  
RATES HAVE CHANGED!  
) \*\*\*\*\*

# Here and There With Pascal

## NEWS

### PASCAL JOBS

(\* PUG Member Jack Laffe has been keeping track of some of the jobs for Pascalers which have been advertised in recent months. We decided to publish it as one more indication of the currency of Pascal. This is not a "Help Wanted" section; in fact, these jobs may have been filled. We may continue publishing this section, when space permits, if someone like Jack will compile the list. \*)

(\* The first job was advertised in CACM in January. The others all appeared in Computer World on the date indicated with the job description. \*)

Softech: compiler design.

Dunhill Personnel Inc.: 78/01/02

Modular Computer Systems: 78/01/23

National Cash Register: compiler design for Pascal-like language: 78/01/30

Timeshare: applications, systems: 78/02/06

Amdahl: systems programmer with Pascal experience: 78/02/27

California State Universities and Colleges: instructional consultants in Pascal: 78/03/06

GTE Sylvania: software engineers: 78/03/20

Houghton-Mifflin: Pascal programmers: 78/3

### TIDBITS

Richard E. Adams, 239 Chatham Road, Columbus, OH 43214: "Did you hear that Burroughs was implementing Pascal on a microprocessor? (They were advertising for people in Computerworld." (\* 78/02/09 \*)

Wayne Andrews, Electronics Department, Weber State College, 3750 Harrison Blvd., Ogden, UT 84408: "We just put Pascal on our Dec-10 system and are trying to get going on the project." (\* 78/03/06 \*)

C. Bailey, Bailey and Associates, 1144 S. Atlanta, Tulsa, OK 74104: "I have an Altair with 32K memory, 2 Altair Floppy Discs and a Decwriter. So I am interested in Pascal as implemented on the Altair or Altair-like CPU. I am employed as a programmer/analyst for the Altair and HP and SG minis." (\* 77/12/30 \*)

Francis H. Beardon, Manager of Projects, Data Systems, Cincinnati Electronics, 2630 Glendale-Milford Road, Cincinnati, OH 45241: "We at Cincinnati Electronics Corporation are interested in Pascal as a possible standard programming language for our developed software systems because of its projected portability." (\* 78/02/13 \*)

David J. Bell, 609 Craig Ave., Campbell, CA 95008: "My personal system is a Processor Tech SOI-10, with externally expanded memory and I/O. I am interested in developing a Pascal translator for this computer, and for the HP2112 I use at work." (\* 78/03/10 \*)

Brad Blasing, 1308 Centennial Hall, Univ. of MN, Minneapolis, MN 55455: "We have implemented the Netherlands Pascal compiler on our 11/40 running UNIX. Runs fast for an interpreter. It's a good hybrid of the P2 and P4 compiler. Could use a bit more user-type documentation." (\* 78/04/02 \*)

William R. Blatchley, Measurement Systems Div., Siemens Corp., 3 Computer Drive, Cherry Hill, NJ 08002: "We are engaged in test equipment design and development for memory devices and have a possibly immediate need for a Pascal implementation on a PDP-11 for testing magnetic bubble memories." (\* 78/04/12 \*)

Damon Blom, 72 Sandburg Drive, Sacramento, CA 95819: "I am presently using Pascal on an IBM 370/168 computer using a Pascal compiler written in XPL. I will be getting shortly

the Pascal compiler written in Pascal developed at SLAC, Stanford University." (\* 78/03/05 \*)

Richard J. Cichelli, 901 Whittier Dr., Allentown, PA 18103: "Joseph Mezzaroba at Villanova has supervised two projects to implement Pascal-S on the 370. One using the AAEC Pascal compiler (Pascal-S in Pascal--takes 100 seconds to compile) and the IBM PL/1 compiler (Pascal-S in PL/1--takes 36 minutes to compile). Pascal-S in Pascal was 30 per cent smaller and ran five times faster." (\* 78/04/14 \*)

Roger Creamer, CTB/McGraw-Hill, Del Monte Research Park, Monterey, CA 93940: "Also, any specific information which you could provide on Pascal implementations for the IBM 370 and DEC PDP-11 would be much appreciated." (\* 78/04/14 \*)

Anthony Conti, Box 1201, Concord, NH 03301: "I am a user of a Data General Eclipse S200 minicomputer and am interested in running and maintaining Pascal on it." (\* 78/01/12 \*)

Jean-Louis Decoster, Lyss-Str. 21, CH-2560 Nidau, Switzerland: "Could you inform me too if a Pascal compiler is already implemented for the Motorola 6800?" (\* 78/03/15 \*)

Alan Delwiche, Computer Programming Instructor, Leland High School, 6677 Camden Ave., San Jose, CA 95120: "Would you please send me any information regarding versions of Pascal for an 8080 or Z80 microprocessor. We have a 32K Cromemco with dual minifloppy drives." (\* 78/02/08 \*)

Shaun Devlin, 6854 Cedarbrook, Birmingham, MI 48010: "I would also appreciate it if you could direct me to anyone who has or is planning to implement Pascal on a Texas Instrument 990/9900 system." (\* 78/01/05 \*)

Bob Dietrich, M.S. 60-456, Tektronix, Inc., P.O. Box 500, Beaverton, OR 97077: "Am bringing up solo-concurrent Pascal under RSTS/E time sharing system (PDP-11). Also involved with Swedish and BSM Pascals for PDP-11." (\* 78/03/08 \*)

Robert Emerson, Honeywell Information Systems, 9555 S.E. 36th St., Mercer Island, WA 98040: "Another interest of mine is implementing a Pascal compiler on the Honeywell Level 6 mini computer. Any tips for compiler implementation would also be appreciated." (\* 78/01/17 \*)

Mel R. Fisher, Business Dept., Calvary Community Church, 1175 Hillsdale Ave., San Jose, CA 95118: "I am in the process of writing specialized programs for our church records, bookkeeping, and data of this nature. The Pascal language sounds very interesting, and I would appreciate any further information that you could supply me with. We currently have an IMSAI 8080 48K memory, with floppy disk video display and printer." (\* 78/02/15 \*)

George H. Golden, Sr., Computer Center, SUNY-Fredonia, Fredonia, NY 14063: "We are trying to get Pascal running on the Burroughs B-4700. It runs. But takes too much core." (\* 78/04/10 \*)

Robert M. Green, Robelle Consulting, Ltd., No. 130, 10th Ave., Delta, BC V4M 3T9: "Could you let me know if there are any implementations of Pascal for the Hewlett-Packard 3000 computer? If not, I am interested in implementing it. Is there any way I can get a copy of the Portable Pascal compiler, version P4?" (\* 78/02/02 \*)

R. Gunzenhauser and R. Kleine-Homann, Institut für Informatik, Universität Stuttgart, 7 Stuttgart 1, Azenbergstr. 12, Germany: "We use Pascal as the first programming language for our freshman students and for high-school teachers.

"We offer Pascal at our German Computer TR 440; besides we have a DEC PDP 11/40 computer (OS DEC RSX 11-M, 92kBytes) and wish to implement Pascal or a Pascal subset like Pascal-S.

"We would be very obliged if you could send us information about Pascal implementations on RSX 11-M you know." (\* 78/03/15 \*)

Robert O. Harris, University College London, Computer Center, 19 Gordon Street, London WC1A 0AH, United Kingdom: "I read the bit on PUG finances and noticed that PUG (UK) were the big loss makers, so I reckon its time to stop reading the library copy and pay

for my own." (\* 78/02/27 \*)

Carroll Hennick, Autologic, Inc., 1050 Rancho Conejo Blvd., Newbury Park, CA 91320: "Your letter in SIGPC Notes was welcome."

Judy Herron, Computer Sciences Dept., Mt. San Antonio College, 1100 North Grand Avenue, Walnut, CA 91789: "In my recent reading, references to Pascal seem to pop up everywhere--although I have yet to see one line of source code. "I'm interested in learning what I can about the language, and its implementations. What manufacturers offer Pascal? Is there a compiler available for our Altair 8800, Xerox 530, or IBM 1130? It sounds as though Pascal is used mainly for the teaching of structured programming techniques. Are business and industry adopting it also?" (\* 77/12/28 \*)

Bruce Hillegass, Digital Equipment Corp., 146 Main St., Maynard, MA: "I obtained your name off a Pascal document located on one of our DEC Sys-10's. "Pascal is virtually unsupported on all of our in-house systems, and there are numerous versions of the compiler around. I have been interested in Pascal for quite a while, and I'm in the process of learning the language. I am exploring the possibility of writing a compiler using Pascal as the language and I'm looking into Pascal as a language used in micro-programming. "I would appreciate any information you may have on Pascal activities in university environments especially on the DEC Sys-10." (\* 78/01/27 \*)

Robert M. Hofkin, APIS Dept. C-014, Univ. Of CA-San Diego, La Jolla, CA 92093: "Language extensions seem necessary, but the syntax. Let's not have another PL/I! Also--why wasn't Cichelli's review of Ken Bowles' book critical? It sounded more like a product announcement from IBM." (\* 78/03/17 \*)

David Holland, P.O. Box 38243, Houston, TX 77088: "In case you don't know already, T.I. Are getting ready for a Pascal compiler on a ROM for their 16-bit TMS9900 MP." (\* 78/01/31 \*)

William F. Holmes, Washington University, School of Medicine, 660 South Euclid Ave., St. Louis, MO 63110. "We are not using Pascal at present, but are seriously considering it for the PDP-11 (including the LSI-11) and the 8080 or 6800. We also have Computer Automation's LSI-2's, but unfortunately do not use their operating system." (\* 78/01/30 \*)

William C. Hopkins, 1101 Bondsville Rd., Downingtown, PA 19335: ". . . still working on a Univac 90/70 implementation." (\* 78/02/26 \*)

Gary M. Huckabay, Department of Mathematics, Cameron University, Lawton, OK 73505: "I would appreciate information concerning the following: i) language definition, ii) implementation at any computer site, iii) any suggestions on implementation, iv) any information concerning implementation on the Hewlett-Packard 3000, Series II." (\* 78/01/26 \*)

Phil Hughes, P.O. Box 2847, Olympia, WA 98507: "I have been studying and debating whether to implement Pascal on a micro for over 6 months. The article 'Pascal vs. Basic' made me aware of two things: 1. There is a Pascal Newsletter. 2. I have been wasting my time thinking about what would make Basic better. "Please send me information on obtaining the Pascal Newsletter and any information you may have about implementations of Pascal on micros (particularly M6800's)." (\* 78/01/19 \*)

Joseph M. Jolda, Bartlett High School, Negus St., Webster, MA 01570: "I've been trying to build something around the IBM Assembler but I'm running into all sorts of problems. It seems as though Pascal has the possible answer for me." (\* 78/01/09 \*)

Ralph Johnson, 1592 N. Broad, Galesburg, IL 61401: "I am rewriting Concurrent Pascal for the PDP-11/40 which should take about two weeks. If no one else has done this, I will send you the few changes that need to be made to the PDP 11/45 version." (\* 78/01/04 \*)

Adnan Khan, 222/7, Block-E, (Opp. Walton Training Centre), Walton Road, Lahore, Cantt., Pakistan: "I would like to get some knowledge about the new developments made after my contribution of Source Library Mechanism for Pascal 1900, under George III, which has also reduced the compilation time by one third. My project also involved translation of some NAG routines into Pascal." (\* 78/01/17 \*)

James R. Kochanocicz, Dedicated Systems Inc., 180 N. Michigan Ave., Chicago, IL 60601: "We are presently using Pascal on a Sperry Univac V-76 series computer." (\* 78/03/19 \*)

Charles Kuhlman, New York City Criminal Justice Agency, 305 Broadway, New York, NY 10007: "We are preparing to gear up a DEC PDP 11/70 RSX-11P system and are contemplating use of Pascal for some applications. . . . Do you know specifically of any RSX 11/70 versions of Pascal?" (\* 78/03/06 \*)

Roland L. Lee, 645 35th Ave., San Francisco, CA 94121: "I am thinking of writing a compiler for the Z-80 and would like some information on existing resident Pascal compilers that you know of for the Z-80." (\* 78/04/01 \*)

Alan M. Lesgold, LRDC Computer Facility, University of Pittsburgh, 3939 O'Hara St., Pittsburgh, PA 15260: "I would be interested in knowing of sources, if they exist, for a 6800 cross-compiler that would run on a PDP-10 or PDP-15 and also for a PDP-15 compiler. I am very interested in implementing Pascal as our primary source language." (\* 78/01/12 \*)

Bruce MacAnespie, 600 N. Hickory Ave., Apt. 18, Bel Air, MD 21014: "If you can supply me with any contacts or information regarding Pascal compilers or interpreters implemented on Burroughs B6700 or B7700 Computer systems, please send it by return mail. Having been a Burroughs Algol fan for some years, I am extremely interested in a language that promises to be the next generation of decent software implementation languages." (\* 78/03/08 \*)

Mario Magidin, Direccion General de Sistemas y Procesos Electronicos, Subdireccion de Sistemas "B," Corregidora No.8, Centro, Palacio Nacional, Mexico 1, D. F.: "We are the computing facility of the Mexican Ministry of Budget and Planning. With the aid of a CDC Cyber-173 we are supposed to satisfy all the computing requirements of the Ministry, thus, large, so-called commercial type systems are constantly under development and/or running at our place.

"Up to now, all these systems have been programmed in COBOL, and although we are painfully aware of the shortcomings of this approach, (particularly with CDC's COBOL) our solutions were directed mainly towards the use of a preprocessor of the type of Weinberg's Metacobol.

"The idea of replacing COBOL with PASCAL has arisen. I would deeply appreciate your comments on this idea." (\* 78/03/31 \*)

Bill Marshall, Jr., Sanders Associates, Inc., 24 Simon St., Nashua, NH: "I've been praising and promoting Pascal for five years now . . . it's about time I put my money where my mouth is!"

Irv McKnight, 505 Cypress Point, No. 52, Mountain View, CA 94040: "I have an S-100 8080 system with a NorthStar Disc. Several of us are looking into making the U.C. San Diego Pascal system live in the NorthStar." (\* 78/03/27 \*)

Ronald D. McRaney, P.O. Box 10097, Station 1, Houma, Louisiana 70360: "I am in the process of putting together a Pascal dedicated PDP 11/03 for my personal use." (\* 78/01/04 \*)

J. Scott Merritt, 655 S. Fair Oaks Avenue, Apt. L-216, Sunnyvale, CA 94086: "Tried to find CACM article mentioned on Page 87 of PUG 11. It wasn't in Dec. '77 or anywhere else I looked. Where can I find it?" (\* 78/03/11 We don't really know either; will you write to Amsterdam to ask? \*)

Rolf Molich, Software Development Manager, Dansk Data Elektronik Aps., Generaltorvej 6A, DK-2730 Herlev: "Further, I would appreciate it very much if you could tell me the name and address of any person or institution that you may have heard of who is currently developing a Pascal compiler (not an interpreter) for the Intel 8080 microcomputer." (\* 78/01/24 \*)

## Here and There With Pascal



