APL PRESS GOES WEST

APL PREss has moved again and is now alive and well in Palo Alto. lpr, PRESS continues to offer books and

pamphlets on Apr-including two new publications, A Source Book in APL and The Four Cube Problem issued in 1981.

Having survived the trip across the Rockies, we're reviving ,lr,z

IE'WS, our occasional publication de-voted to announcements and sum-maries of our publications, informa-tion about elr, meetings, and brief articles of interest to the apl com-munity. We welcome conLributions fo:r ,tpt nDws as well as comments and suggestions regarding ApL pRESs publications.

In this issue: Jeff Shallit's apl errY explores SLowly Shrinking

Squares. Attd, as usual, Jeff issues an err, challenge. A new feature* the GUEST cor,uMN-reveals the wit and wisdom of J. C. L. Guest. epl

CHARACTERS gives members of the elr, community an opportunity to

submit pholographs of "Great Mo-ments in ApL," and wHAT's IN A uelrn: challenges you to contdbute interesting or amusing alternative uses of the acronlrm ApL. In addi-tion, ApL ANNoUNCEMENTS details up-coming -e.rr, gatherings. Finally, arr, PREss PUBLrcATIows provides a de-scription of all current ApL pREss publications and their prices. Enjoy!

rAt

NEW FROM APL PRESS

A Source Book in API-Papers bg
Atlin D. Falkoff . Kenneth E. Iver-
son 139 pages, rsBN 0-917326-10-5,
(paper) $10.35

This collection of fundamental pa-pers by Adin Falkoff and Ken Iver-son provides background material for teachers and students of ApL. In a course on ApL, the focus is neces-sarily on the details of the language and its use. Often, there is not elrough time to give the purpose for any given rule, nor how one piece of the language relates to the whole. The articles in A Source Book in APL deal with the more funclarnen-tal issues of the language. These pa-pers appeared in widely scatterecl sources, over a period of many years, and many are not at all easy to find.

A Source Book in APL conlains

Ivelson's'Formalism in Pr.ogram ming Languages," "Convenr ions

Governing Order of Evaluation,', "Algebra as a Language,". ',Pro-gramming Style in err,," "Notation as a Tool of Thought," and "The In-ductive Method of Introducing .rrr-." Also incluclecl are "The Design of APL" and "The Evolution of epr," bv A. D. Falkoff and K. E. Iverson. " E. E. McDonnell's introduction
puts the papers in perspective, and also gives some fascinating early his-tory of eel, including how it got its name and having got it, how it al-
most lost il.

The Four Cube Problem E. E. McDonnell, 27 pages, rsBN 0-912326-11-3, (paper) $2.25
Some years before Rubik came along with his intriguing cube, there was another cube puzzle-not so difficult to solve. but challenging nonetheless. The Four Cube Prob-lenz presents two variations of com-puter solutions to this puzzle.
Our languages influence the way we think, and this is no doubt as

:

APL PRESS features APL Rogues' Gallery at APL 81 Mollieo pcLtlick (ApL
PaESS) tulcl Al McDonn,ell (left) look on as Pete McDotneII (tight) sketcltes Leslie
GoLdstnitlt's (1. P. Sltat2 Associutes) clTricqhlre et tlle ApL pr'lslj boo t. Leslie's like-
ttess .joitted tlLe tanks of the burgeoning "APL chat octet, ,set' Disible in, te ba,ck-
tio't rhl.

APLtarI{trWS

true for programming languages as for natwal ones. The Four Cube Problem shows how eestc and ePL give different shapes to our percep-tions of problem solving. The book-let includes complete and well-documented programs for both solu-tions, and then provides an analysis of the differences between them.

The BASIc solution won first prize
in a programming contest. (The APL program wasn't an entry.) The BAsIc solution can't help exemplifying what John Backrs cal]'s the oon Neutnann bottleneck. The apl solu-tion, on the other hand,
loops, no recursion, and
ables!

The Ajr, solution is written in the style Backus c ls Junctional pro-gramming. Backus devised func-tional progr:amming as a way out of the problems he sees with contem-porary programming languages. When used with the d,irect d,ert,nition form devised by Kenneth E. Iver-functional programming leads
highly articulated method of
program writing. This new kind of programming technology finds a nat-ural home in an epl environment. fit

APL PRESS lfl - Puhlitations

Starmqp P. C. Beny and J. C.
Thorstensen, 41 pages, ISBN 0-917326-07-

5, (paper) $3.45
Stonrop provides a simple APL model of the solar system. The functions are writ-ten so as to make clear the structure of

the underlying model by providing for-mal definitions for a vocabulary of terms and concepts familiar in astronomy. Star tables are included so that the APL func-

tions, together with standar d plotting functions. permit a user at an epL termi nal to produce a map of the sky as it should appear above any place on Ealth, at any time of day, over a considerable range of dates.

APLT& NEWS

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APL PRESS fil Putrli.atiorr" Introducing APL to Teqchers Ken' neth E. Iverson, 25 pages, lsBN 0-97'1326-03-2, (paper) g .95

In introducing the use of a computer to teachers, it is desirable to start as sooa as possible q,'ith material which they can see is relevant to their topic and their students, and to avoid digressions con-cerning the computer and computer lan-guage. This book presents such an intro-duction to APL for teachers of high school mathematics. Much of this material should also be suitable for teachers of other topics at other levels, although they would benefit from auxiliary mate-rial specifically addressed to the topic of
interest.

CON?EN?S: Introductian, Expei-lnentatiotr, Systettatic E ty.tetitnentatioll, M tLLtipliccrtion cottl Other F itctio)t T(r-bles. Crophs and Bar Chafis. Indering and. Cltaracters, ExpLoring Functions of OrLe Argumenl, DeJining New Func-tiotts. Inuet'se Functions, S,u.nunatio.n and Otlrer Functions oae1. e List, Fac-toring, Linear Expressio)ts, Line&r Equ-at;otib. TuLles ond Graphs oJ Lineot F,r rclions. Pol!ror,inls, Genercllzing u

Futzction by Use o.f Putterns, TIte Posi- lioe Inlpqprc, St,t,,tolion o[Senes,

Power Seties, DilJbrencing d Function, Colnbinatioits and BinoniTl Coefrt-cients, Iter"atiott, ReJercnces to Otlrcr To-

pics, References, SutnnatA of Notqtion An Introduction to APL for Scientists qnd Engineers Kenneth E. Iyerson, 26 pages, ISBN 0-917326-04-0, (paper) $.95 This is an introduction to ApL addressed to the scientist or engineer and is de-signed to exploit any previous acquain-tance u/ith the very similar notation of vector algebra. A careful study of these pages should bring readers to the point where they can begin to make serious use of ApL in some topic of interest to them. An ApI- terminal. while not abso-lutely essential, adds greatly to the depth and interest of the work.
The pleasure and efficiency o[learning by experimentation is not sufficiently ap-preciated, and the first six pages are de-signecl to encourage this type of use of a terminal in learning ApL. Two pages are devoted to a variety of identities and proofs expressed in ell,

APL in Exposition Kenneth E. Iver-son, 61 pages, rSBN 0-917326-02-4, (paper) S1.15

This book illustrates the use of ApL for exposition in the teachi[g of vadous to-pics. The first section presents the characteristics of the language, and each of the other sections illurtrates its use in some discipline.
TO P ICS : E letnentary Algebra, C rnrdi-ntTte GeometrA and, Statics, Finite Dif-ferences and the Calculas, Logic, Seti, Electric Circuits, The Computer

Jeff Shallit

Sloutly

Shfinking
Squares
Psrt 1

Consider a 2-by-2 matrix M with nonnegative integer entries. We can form a new matrix by taking the absolute values of the difference between adjacent elements. For

examPle:

?: I ar-eQar
M

13 7

30 27 ril
6 14
7-7 S

You may be surprised to find that

applications of ? seem to reduce any matrix very 2 zp0. For the matrix l, above, it takes application s of ?. TTTTTl
00
00

successtve

quickly to
on ly fou r

_ Why do repeated applications of ? eventually "annihilate" (send to 0) any matrix? Let's look at what hippens to the

maximum element of the matrix lZ when we apply ?. We can

assume that the maximum element is ittl;11 (why?). Then atler M<f ltr, we see that ltttl;11 has been replaced by llItl i 1l -Mtr:'2) . lf lillLi2l.0, then the maximum elemeni

has decreosed in value.

But what if III!:2)=O? ln that case, if Ml2t2JrO, it will take two applications of ? to decrease Ml!i]-1. ln fact, if lltltt) is nonzero and all the other elements of il are 0, it. may require four applications of ? to decrease the maximum element. H. Karloff and D. Shmoys have

suggested th is approach. +22pfOOO

APL PRESS Publicatious

MATHEMATICS

A coherent sequence in the central to-pics of elementary mathematics, bridg-ing the years from high school through first year college:
Algebru: An Algorithmic Tleahnent K. E. Iverson, 361 pages, ISBN 0-917326-09-1, (paper) $10.75
Solutioru to laerson's Algebra J. A. Iverson, 42 pages, ISBN 0-917326-06-7, (paper) $1.75
Elementary Analysis K. E. Iverson, 218 pages, lsBN 0-917326-01-6, (paper)
$7.25

Calculus in a New KeU D. L. Orth, 286 pages, ISBN 0-917326-05-9, (paper)
$9.25

APl. is used as the exclusive mathelnatical notation throughout-in exposition. in proofs, and in exercjses. This nolation is very close to conven-tional algebra but is simpler and more general, and is directly executable on an APL computer exactly as written. Al-though an APL computer is in no way es-sential, it is a useful adjunct, encourag-ing an experimental approach to the exploration of mathematical topics.
The simplicity and ptecjsion of APL makes possible an algorithmic treat-ment-every function introduced is de-fured in terrns of at least one explicit construction. Even if a eomputer is not available, the algorithmic treatment pre-

se]lts the essentials of computer pro-gramming in a mathematical light. i.e.. as the precise definition and application of functions.

Since Lpt is a straightforward and precise notation, it has been possible to place a greater than normal burden on the exercises. This is reflected in their number and variety, and in the fact that interesting and nontdvial results are de-veloped in them. The extensive exer-cises make it possible to foster a great deal of indepenclent work on the part of the students. Finally, the exercises can be used effectively in courses devoted to teaching the APL language itself.
Because APL applies to vectors and matrices (or Lists a\d tables, as they are cal1ed in the algebra text) in a simple and uniform manner, tables are used ex-tensively to give a graphic view of func-tions by displaying the patterns produc-ed by applying them to vectors. They are also used to clarify topics which use vectors directly, such as linear functions and poll.nomials.
The noiation provides a simple explicit means for function definition. and the

notio:n of function is emphasized in all three texts. The Elementary Analysis and, C{LLcuLus in a New KeA lexts em-ploy a particularly simple and effeetive fom (that coyers recursive definition)
ealled d"ir e ct cl'eJinilio n.

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TTM

TTTM
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7

TTTTM

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Four applications of ? suffice to decrease the malimum element in value. Suppose the matrix we start with, Itr, has a maximum element of iy. Then, after at most 4xiv applications ol I, we will have annihilated U.
Actually, far fewer applications of ? are usually needed. Consider the 2-by-2 matrices with each entry less than 10. There are 16 such matrices for which 8 aPPlications of I are needed. lf we consider matrices that are rotations or reversals of each other to be the same, then there are only 2 such matrices. One is
01
94
Can you find the other one?
To show how few applications of f are usually needed, 50,000 2-by-2 matrices were examined with elements having randomly chosen values between 1 and 1816. Here are the
res u lts :

Applications of f req u ired

4
5
6
7
8

I
'10
1l
't2

13
15

Number of
occu rrences
24893
8898
11436
3139
1175
307
108
34
6
3

1

Percent

49.8
17 .8
1',> a
6.3
2.3
. 6
.,

.t
<,.1
<.1
<.1

You should now try to find matrices that require many applications of f to be annihilated. Let's call them "slowly shrinking squares. "
ln the next installment of APL PLAY, we will exhibit a 2-
by-2 matrix with elements having values of less than u00 which is annihilated by 17 applications of ?. We'll also show a clever solution by Elwyn BerlekamP, and we'll discuss other approaches to slowly shrinking sguares.
Thanks to Blair Gibb for suggesting this problem'

Pleose send your APL PLAY answers to Jeff Shollit ot Department of Mothemdtics, Evons Hall, University of Colifornia, Berkeley, CA 94720.
V,
NOTE TNOU THE PIJBLISHER:
It is with a mixture of embarrassment and relief that we report on the results of the APL PLAY item that appeared in

the special edition of APL NEWS distributed at APL 8l in San
F rancisco.

The embarrassment comes about as follows: as the special edition was being put together at the last minute, I received a message from Jeff Shallit, our APL PL.AY editor. (By the way, Jefl was at APL 81 . lf you were there, you may have seen him when he gave his paper on "lnfinite Arrays and Diagonalization," although more likely you saw him as he ran the T-shirt concession.) This is the way we printed the contents of Jeff's "message":

!,PLPLAY I Out APL P laj editor asks you to find two expr€ssions, each six characters or less, the first to produce the vector 0 0 I 0 l, and the second to produce the vector 0 I 0 0 l.

When I saw Jeff at the conference, I thanked him for having submitted this puzzle at the last minute. Jeff's face dropped, and he said, "What do you mean? That was no contribution ! I was looking for help! I was trying to build a iist of expressioni foi all possible 5-bit Boolean patterns, and those two had me stumped!"
Well, the relief I feel is because several readers submitted solutions to the puzzle. The keen contestants are Bob Wolfson, of Upjohn Co. in Kalamazoo, Ml, Tom Springall, of Southport, CT, Stephen D. Lewis and Alan Sharpe, of the University of Alberta, and Gerald W. Hoencke of Lockheed Missiles and Space Co., Sunnyvale, CA. We now have many solutions to the pnoblems, in both 0-origin and 1-origin. Hene they are:

0 01 01 in O-origin:0,21r4
0<-\r5
15-\r5
2la0ts

0 0 1 0 I in l-origin:
0>\rs
1<-\r5
25-\r5
1<+\r5

[Wolf son, Lewis E
I Springa ll, Lewis
I Lewis a Slla rpe]
[Lewis E Sharpe]

Sharpe, Hoencke]
t Sharpel

\PL PRESS lfl Puhli<'atiuns

1980 APL Users Meeting Sponsored bv I. P. Sharp Associates Limited, 648 pages, (paper) $20.75
These proceedings of the conference in Toronto include more than fifty papers covering topics in each of lhe following sessions: Mon crgirg APL Resoutces; APL for FinatLcial AppLications; Appli-cotions in the A:uiation Industty; Inter national, Net:Loorks for Corporate Com-tnuniccltions; APL for Plccnning, Fore-casting, and Econ,omics; Person.nel and" Record, Handling Systems; In-house APL Titne'shaing Seruices; APL for Decision Sttpy:tot"t Systerns; Priuctte Data Bttsps: A Ditnuotio; Atgorithn Jt APL: APL Teehriques ond Pro!t','m,ui,tg Tools: S ttpcio llzeJ APL Applitotio,ts: Applications in tlrc Energy Industty; Teachtng APL; Data ManipuLation and, Displa ll Tcrhn)q,tps: Atngs: Electro,tic Mail; Euent Hand,Ling; Forecasting and" Econometric Modeling; Sherccl Vqri-ables; Recortl Hawlling Systents; The Package Data Tgpe.

Resistive Circuit Theory R. L. SpeDce, 279 pages, (paper) $13.95
This freshman level intloduction to cir-cuit theory is limited to resistive circuits
(linear and nonlinear) and employs lrl as lhe mathematical notation. The executability of APL permits a student to experiment u'ith a wide variety of cir" cuits. and thereby gain insigh{ in{o cir-cuit behavior and the structures oI cir-cuit theory, Circuit topology is tlescribecl by the node-branch incidence matrix; APL makes possible simple explicii ex pressions for conductance and impedance matrices, and for Kirchhoff 's laws,

CHAPTERS: Cirait Design; Mea-surenLent qnd Mod,eling of 2-Tenttinql Components; Com'ponent Intel'conlxec tion; Saurces antl Power; Signals; Mea-stLrentent and Modeling of
Cotnporcrfs: TopologlJ: C irc'r '-Tetlttinal, il Dcsr'ip-tion: Linear Circu;it Analgsis; Linear Circuit Properties; Nonlinear Circu,it Analysis; Small Signal Behauior of Nonli,near Circuits

APL aruI Insight P. Berry, G. Bartoii, C. Dell'Aquila, V. Spadavecchia, 89 pages, ISBN 0-9U326-08-3 $5.25
This book discusses the use of APL to

represent concepts in teaching. It in-cludes examples drawn from elementary physics and computer science, and dis-cusses the programming style approp-riate to use in teaching. The main themes arc lhal the key concepts of seli ous disciplines can be represented as functions; that APl, pernits a readable formal definition of a function and a means of executing iU and that it is pos-sible to write progmms so that they cor-respond directly to the functional con-cepts of a discipline.

IWolf son]
ISpringall]
IHoencke]
I Hoencke]

Wolf son l
Sp rin ga lll
Lewis t, Sha rpe]
Lewis E Sharpe]
Lewis & Sharpe]
Lewis E Sha rpel
Lewis E Sha rpel

0 1 0 0 1 in

The last two really don't differ significantly from the first two. Springall's is particularly nice.

0 1 0 0 1 in l-origin:
[Wolfson, Lewis E Sha rpe]
ISpringall, Hoencke]
ILewis E Sharpe, Hoencke]
I Lewis a Sha rpe]

The last isn't essentially different irom the second. Congratulations to all the contesfants, and thanks extricating us from our embarrassing hole.

0-origin: 1=31r5
2l3l15

1=5p13
215p13
21201s
2T3Tr5
1=3T15

10>\ r 5
2=31r5

2=5pr3
2=3Tr5

for

tAr

GUEST COLUMN

The memories I wrote about in "APL Blossom Time" were stirred bY the prospect of seeing, at APL 81, manY friends that I hadn't seen for a long time. The melody was suggested bY a song that was poPular on KFAT, the stereo t'ttt voice of Gilroy, Garlic Capita.l of the World. I Put in a lot of grave-shift hours during the lat-ter part of 1981, and KFAr was mY early morning companlon. (J work at tBM's Santa Teresa Laboratory which is within sniffing distance of Gilroy.)
One of the most poPular songs on KFAT at the time was a takeoff on

"The Battle of New Orleans" bY Hank Williams, Jr. and a lead singer whose name I never learned. He had apparently worked for both I{ank, Sr. and Hank, Jr., and the sons was a hilarious account of his e*piriences. The combination o[nos-talgia, a catchy tune, and the discov-erv that Jim Brown was a guitar
vifruoso d.id it. My memories took the form of the song we all sang at APL 81. I feel very grateful to the performers-whom some now call lhe epl Corral-who did such an outstanding job of presenting it on
stage.

-J- C. L Guest

MICRO APL

Both APL 81 and the ?th West Coast Computer Faire in San Fran-cisco featured numerous demonstra-tions of full-blown APL systems on

microcomputers. "Where can I get
APL on a micro?" was the question visitors to the APL PRESS exhibit at the Computer Faire last month most frequently asked us.
There are too many manufactur-
ers currently offering APL for per-sonal computing for us to list them i\ APL NEws. APL Micro RePort bY Mokurai Cherlin offers a directory of hardware and software manufactur-ers, and also reviews e.Pl software svstems for micros. API Micro Re-p"od is available for $26 u.s from APL Market Place, P.O. Box 5314,

Mt. Carmel, CT 06518. €r

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Reference Card $ .35. Complete sum-mary of APLsv on a wallet-sized plastic
card

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Ded,icated to the pioneers of APL with tvspect and affection bg

,1. C. L. Guest

APL Blossom Time

A nostalgic reminiscence of the early days of ,ui,, remembered to the tune of ?/r'e
Bollle oI Netu Orlea s.

Back in the old days, in 1962, V
A feller'named Ken Iverson decided what to do.
He gathered all the papers he'd been wriring fer a spell
And he put tbem in a little book and called it epr.

Well. . .

He got him a jot and he got him a ravel
And he rewed his compression up as high as she could go And he did some reduction and he did some expansion
And he sheltered all his numbers with a ceiling and a flo'.

Now Sussenguth and Falkoff, they thought it would be fine To use the niw notation to describe the product line.
They got with Dr, Iverson and went behind the scenes
And wrote a clear descriplion of a batch of new machines.

Well. . .

They wrote down dots ?nd they wrote down squiggles
And they wrote down symbols that they didn't even knovr
And they wrote down questions when they didn't kno\i'-the answers Anrl they made Lhe Syslems Journal in nineteen sixty-fo'

Now writing dots and squiggles is a mighty pleasant task
But it doesn't answer questions that a lot of people ask.
Ken needed an interpreter for folks who couldn't read
So he hiked to Californ-i-a to talk to Larry Breed.

Oh. he got Larry Breed and he got Phil Abrams

- - -

And the.-y started coding FoRTRAN just as fast as they could go
And they punched up cards and ran them through the reader
In Stanfbrd, Palo Allo, on the seventy ninety oh.

Well a FORTRAN batch interpreter's a mighty awesome thing
But while it hums a pretty tune it doesnt really sing.
The thing that we all had to have to-rnut" o,t" iiu"r-r,,tli-" \/

Was an iinteractive progtam that would let us share ihe time.

Oh, they got Roger Moore and they got Dick Laihwell,

. -

.tna thdy got G""e McDonnell with his carets and his sticks,
And you s-hould've heard the uproar in the Hudson River valley
When they saved the fiIst CLt4ffsP,4CE in 1966.

Well, when AI Rose saw this he took a little ride
ln a big sLation wagon with a t)Te ball by his side.
He did a lot of teaching and he had a lot of tun
With an old, bent, beat-up 2741.

Oh, it tlTed out stars and it typed out circles
And it iwisted and it wiggled just like a living thing.
Al fed it a tape when he couldn't get a phone line
And it purrea like a tiger with its trainer in the ring.

Now, there's much more to the story, but I just donlt have the time (And I doubt you have the patience) lor an even longer rh;'rne'
So I'm endingthis first chapter of the tale I hope to tell
Of how Iverson's notation blossomed into APL.

So. .

Keep writing zands when you're rLot wtiling neithers,
And poinl with an arrow to the place you'r/ant to be,
But don't forgel to bless those early APt- sources
Who preserved the liitle seedling that became an APL tree'

APL ANNOUNCEMENTS

APL 82-Heidelberg
July 26-30, 1982

by APl-Club-Germany
and Deutsches Krebsforschungs-zentrum in cooperation with ecrra's sIGAPL, the German Association for Informatics (GI), and the Gesell-schaft frir Mathematik, Okonomie und Operations Research (cMoEoR), APL 82 will feature technical papers covering eel applications, implemen-tations, education, interfaces, data bases, and APL's use in research.

For further information, con-
tact: Ken Waller, APL 82 Confer-ence General Chairman, Sybron Corporation, 1100 Midtown Tower,

Rochester, NY 14604 or Dr. 'Jf?tlft*ig Janko, APL 82 Program

Chairman, Universitdt Karlsruhe, Institut fiir Betriebswirtschafts-Iehre-Unternehmensfiihrung, Post-fach 6380, 7500 Karlsruhe 1, West Germany.

1982 APL Users Meeting*Toronto October 4-6, 1982

Hosted by I. P. Sharp Associates Limited, the 1982 APL Users Meet-

ing will be held at the Westin Hotel \--h 'l'oronto. 'l'hc program {eaLures
lhree days of workshops on intro-ducing ,rel, managing eel, and eel training. There will also be technical sessions treating topics such as de-signing secure APL systems, mea-surement techniques, and dfficiency. Application sessions will cover ApL in international banking, budgeting systems, and decision support sys-tems. In addition to the scheduled papers ancl workshops, Sunday, Oe-tober 3, has been reserved for courses introducing APL to financial planners, statisticians, economists, managers, and actuaries.
For fudher information, or for a
copy of the 1982 APL Users Meet-ing poster, contact: Rosanne Wild, I. P. Sharp Associates Limited, Box 418, Exchange Tower, 2 First Cana-dian Place, Toronto, Ontario M5X 1E3, Phone (416) 364-5361.

APl83-Washington, D.C.
April 10-13, 1983
The Progr:am Chairrnan for sIGAPL's APL83 has issued a call for papers rn all aspects of .lel including com-ial and scientific applications,
language features, implementations, interfaces with other systems, tuto-rials, using APL in education, teach-ing ApL, interactions with other lan-

J. C. L. Guest at lq.Et! Co.ught in an unguarded inoment q,t APL 81, LalW Breed, (liglLt), the eLusiue J. C. L. Guest* (center), and Gene McDonnell (lejl) remember th,e halcgon days when |uel"son notation blossomed, into APL.

*a.k.a. Mike Montq,Ibano, IBM, ScLnt(L Teresa Photo bg Arlene Azzarell.o

As all apl-nuts know, one of the
things which distinguishes ePl from
other programming languages is its
unique character set. There is
another set of characters involved
with APL-the people who've worked on the design and implementation of the language over the years. ApL NEws would like to feature "historic" photos of these APL characters in fu-ture issues.

We invite you to submit photos-the older the better-for our lpr, cHARACTERS column. We'd like to see black and white prints shouing "great moments in epl." It would help if you identify the epl charac-ters in the picture and provide a brief description of the story behind the photo (location, circumstances, date, photographer, and so on).

We'll return your photos whether or not we publish them.
To iaunch our feature, we offer a picture from recent ApL history. At-tendees of APL 81's banquet at the San Francisco Hilton will recall the enthusiastic rendering of a new tune
from the pen of the legendary J. C. L. Guest. With the assistance of Peter Wooster's (I. P. Sharp As-sociatesr overhead transpalencies, Larry Breed, Jim Brou'n, John Bunda. Diana Dloughy. Al O'Hara, and Rob Skinner (all currently with mu) led the gathering in singing a new hit called "epl Blossom Time." The hall resounded with laughter during this reminiscence of the early days of eel, and J. C. L. Guest en-

tertained us in style once again. €l

guages, programming, and eel as a tool for management.
Draf|s of JulI popers (four copies)
should be submitted to the Program Chairman for review according to the following schedule: drafts sub-mitted for review, June 27, 1982; au-thors notified of acceptance, Sept. 27 , 1982; camera-ready copy due for

proceedings, Dec. 6, 1982.
For further information contact:
Tom Puckett, APL83 Program Chairman, 2000 Wyoming, Las Cruces, NM 88001, Phone (:505) 522-6017 or Don Link, APL83 Confer-ence General Chairman, srsc,2115 East Jefferson Street, Rockville, MD 20852, Phone (301) 984-5333. fir

WHAT'S IN A NAME?

All ,a.pT, afficionados know that apl is the acronym for A Progtamming Language. There have, of course, been mmors of a move afoot amongst the hardcore advocates of APL to change its name to IPL, or simply rl- as in The Programming Language, or just The Language. Nevertheless, APL continues to enjoy a name both within and with-out the computing community (pun[s] possibly intended).
As Eugene McDonnell's introduc-

tion to A Source Book in APL notes, APL has had a number of meanings in a number of fields. In addition to McDonnell's chronicling of enl's signiffcance to Johns HoP-kins University, George Dodd, and the shipping industry, we've latelY become aware of some other uses of the acronym. Paul Berry discovered mention of the "American Patriots' League" in a Wondet Woman comic some time back. Jeff Shallit reports

APL representing the Armenian Presbyterian League in Philadel-
phia. And, Arlene Azzarello was re-

cently surprised to find APL standing for All-Purpose Linotype in Marshall Lee's Booknaking. a publishing in-dustry reference having nothing to do with gambling.
We invite you to submit other current uses of "epr,." The reward is that we'll print the first report we receive of each unique usage along with the name of the person who submits it. Watch for wHArs IN A t,lanlr: in upcoming issues of u'l Ntlls to see just how Pervasive eel really is !
rEr

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