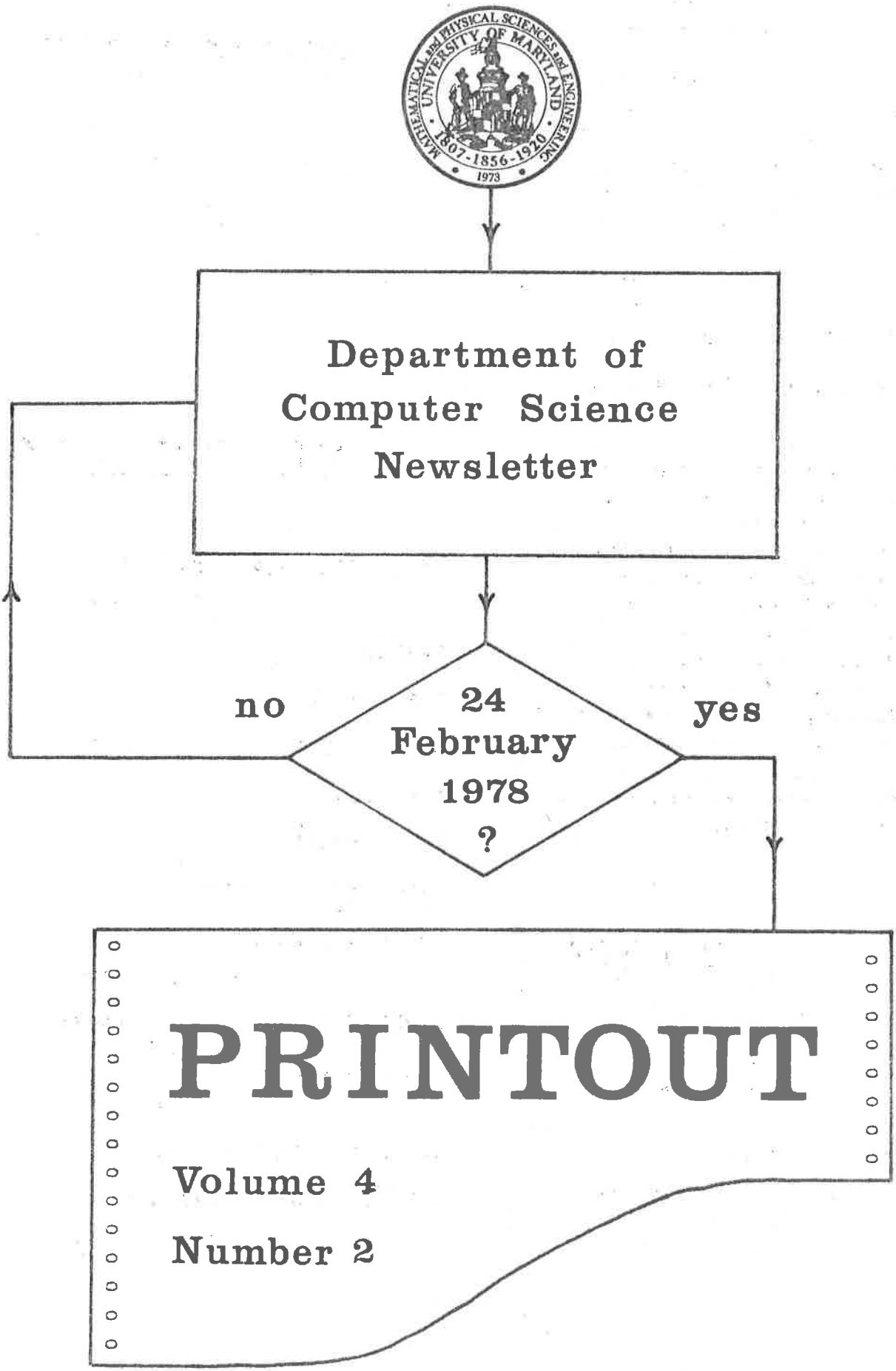
Department of
Computer Science
Newsletter
no
24
February
1978
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yes
PRINTOUT
Volume 4
Number 2

PRINTOUT, the newsletter of the Department of Computer Science of the University of Maryland at College Park, is published sporadically and distributed to faculty, staff, and students in the Department. Opinions expressed in signed articles may be those of the author, but no opinions represent the policy of the Department, or of the College Park Campus, or of the University.

Contributions may be submitted to the editor, and unless they are obscene or seditious they will probably be used, but minor editing may be done. Complaints directed to the newsletter will be investigated and publicized when possible. It is well to keep in mind however that the Department is subordinate to higher levels of administration, not the other way around; and, the Department does not provide computing service to the campus. Complaints in these areas are best directed to other publications.

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PRINTOUT

Volume 4
Number 2

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The Quick Brown Fox...

In talking about printing, words serve double duty. They are necessarily in some particular type font and arrangement, and that aspect may be the primary purpose for their display. The second function the words serve is their sense (if any)--while one is showing off the pretty type, one must say something. If you have read this far, you almost certainly have been paying attention to the wrong one of these functions: the real point of this paragraph is to display a face called Meteor, justified by inserting proportional spaces between all the characters.

If you are paying attention, you will see that the face has changed to Microgramma, with the same justification. Both faces are reductions of dot-generated characters obtained from MIT by Lee Moore, and printed on a Centronix printer. (There are many more faces, but since we are not "one of the classier joints on the ARPANET" to quote the Stanford TR listing them [the joints and the fonts], we have only a few. We print them slowly because we also lack a Xerox Graphics Printer.) The headlines in this issue show some other sizes of Microgramma.

Both of the fonts of the paragraphs above are "variable width," which is normal for justification. In fact, studies have shown that it is harder to read printed material when fixed-width letters are used. This is Garaflex, a fixed-width font, and it has been only justified to the nearest word.

Some fonts are so hard to read that text is almost never printed in them. This one is called Old English.

When the dot printer uses its built-in character generator, it looks like this.

It also has a built-in double-size character generator.

On the other hand, the Univac 1100 PRULC printer looks like this.

The bulk of printing in Universities (at least away from the classy joints) is done with typewriters, and it is the IBM Selectric typewriter with its interchangeable elements (IBM doesn't like to call them "balls") which started the prolifereation of different styles. IBM Selectrics come in two "pitches" corresponding to the spacing of 10 and 12 characters/inch; of course, the fonts are fixed-width. This one is called Courier 72, and it was designed to be used at 10 pitch.

(However, you can use a 12 pitch machine at the cost of squeezing things together a bit.)

After a time everyone gets tired of trying to combine the two parts of font display, and the sense begins to fall away from the words (this font is called Prestige Elite, at 12 pitch).

(Guess what this paragraph is displaying. Incidently, all of the

fonts displayed so far can be machine-printed, the typewriter ones by using a terminal whose print mechanism is built by Xerox, but which has the Courier and Prestige Elete fonts.)

Most of this newsletter is in a Selectric font called Delegate, designed for 10 pitch, but typed at 12 pitch. When one gets really tired of trying to introduce sense, there are two common devices. The first is to resort to a kind of "applied morality." This is particularly common in books that teach touch typing, where the sample sentences are always something like:

> "Always sit upright in your chair with fingers resting lightly on the keyboard. Strike the keys with a steady force, keeping your hands stationary while your fingers move. In this way you will produce sharp, correct copy, and you won't lose your job in the typing pool."

The font has changed to IBM Letter Gothic, which was originally designed for 10 pitch, but changed to 12 when it looked funny (as does this paragraph up to this point). The second device is the "alphabetical sentence." Not all the common ones live up to the name--they don't actually contain all letters of the alphabet. In what follows, the font description is given just before an alphabetical (?) sentence:

(IBM Script) The quick brown fox jumps over the lazy dog's back.

(IBM ORATOR CAPS) NOW IS THE TIME FOR ALL GOOD MEN TO COME TO THE AID OF THEIR PARTY.

(Remmington "Kinder-garden" type) Pack my box with six dozen jugs of liquor.

- 30 -

- Dick Hamlet
(IBM Pica 72)

Awards

Dr. A. Agrawala has been awarded a contract by the National Aeronautics and Space Administration for "Design Analysis of Distributed Computer Systems." The award is $65,115. Dr. Agrawala has also received a $10,074 contract from the Environmental Protection Agency for research entitled "A United Approach to Modeling Computer Services."

N.A.S.A. has renewed the contract "Evaluation of Software Engineering Disciplines" held by Dr. V. Basili and Dr. M. Zelkowitz. The renewal through December 31, 1978 brings the total to $72,993. Drs. Basili and Zelkowitz have also received an extension of a grant on "Programming Language Construct Evaluation" from the Air Force Office of Scientific Research, providing an additional $57,138 through December, 1978.

Dr. G. W. Stewart's Office of Naval Research grant entitled "Research in Numerical Linear Algebra" has been extended through December, 1978, with additional funds of $11,136.

Publications

Rosenfeld, A. Digital Image Processing and Analysis (editor; with J. C. Simon), Noordhoff, Leyden, 1977.

Rosenfeld, A. Curve segmentation by relaxation labelling (with L. S. Davis), IEEE Trans. Computers 26, 1977, 1053-1057.

Rosenfeld, A. An application of relaxation methods to edge reinforcement (with B. J. Schachter, A. Lev, and S. W. Zucker), IEEE Trans. Systems, Man, Cybernetics 7, 1977, 813-816.

Rosenfeld, A. Visual texture analysis: an overview, in R. Shaw, ed., Image Analysis and Evaluation, SPSE, Washington, D. C., 1977, pp. 396-399.

Rosenfeld, A. Automatic signature verification (with R. N. Nagel), IEEE Trans. Computers 26, 1977, 895-905.

Rosenfeld, A. Extraction of topological information from digital images, in Papers, Advanced Study Symposium on Topological Data Structures for Geographic Information Systems, Harvard Laboratory for Spatial Analysis, Cambridge, MA, Oct. 1977.

Austing, R. The GRE Advanced Test in Computer Science, CACM, 20, 9, Sept, 1977, 643-645. (Also in Computer, Dec, 1977, 129-133).

Austing, R. Some Guidelines for the Analysis and Design of a Computerized Utilization Review and Reporting System, Medical Record News, Aug, 1977, (with Joyce C. Little).

Hamlet, R. G. On execution traces, with an application to understanding programs, Int. J. Computer & Inf. Sci., 6 (1977), 263-279.

Minker, J. "Information Storage and Retrieval - A Survey and Function Description", SIGIR Newsletter, Fall 1977, Vol. XII, Number 2, 108 pgs.

Minker, J. "Binary relations, matrices and inference development", Information Systems, Vol. 3, No. 1, 1978, 37-48.

McSkimin, J. and Minker, J. "A Predicate Calculus Based Semantic Network for Question - Answering Systems", Proceedings of the Workshop on Logic and Data Bases, Toulouse, France, Nov, 1977.

Zelkowitz, M. and H. Larsen. Implementation of a capability based data abstraction. IEEE Trans. on Software Engineering SE-4, Jan, 1978, 56-64.

Larry Dowdy

Larry Dowdy was born May 17, 1952 in Wooster, Ohio while his father was a hard working Ph.D. student at Ohio State. After spending fifteen years near Lansing, Michigan his father gave up his appointment at M.S.U. and opted for the "better" life. The family moved to Georgia to raise beef cattle. Larry has been slinging bull ever since.

His education includes a B.S. in mathematics from The Florida State University, a M.A. and a Ph.D. in computer science from Duke University.

His round-robin interest queue includes: network file distribution, basketball, systems modeling, tennis, queuing theory, golf, numerical optimization techniques, and happiness.

A mother mouse was taking her children for a walk. Suddenly a large cat appeared in the path. "Bow wow wow!" shouted the mother mouse. The cat ran away. "You see, children," she said, "it pays to learn a second language."

(Moral for programmers: if your manager knows BAL, you can probably frighten him away with COBOL or PL/1.)

ACM '78

ACM '78 (December 4-6 in Washington) will feature a U.S. government-oriented program in addition to the technical program. The government program is intended to familiarize conference attendees with current legislation, policy, and agency activities relating to the ADP industry. According to general chairman Richard Austing, the program will concentrate on four major areas. Some suggested topics are:

*LEGISLATION: Privacy Act; Brooks Act; EFTS legislation; copyright laws; Freedom of Information Act.

*REGULATIONS & POLICY: ADP reorganization (OMB); procurement, federal software exchange (GSA); federal data centers (GSA); standards and guidelines (NBS, ANSI, DOD); telecommunications and policy; oversight (GAO).

*AGENCY ACTIVITIES: IAC, FADPUG, NASIS; professional development and education (CSC, DODCI); selected agency activities (DOD, SSA, Medicaid, NLM).

*RESEARCH & DEVELOPMENT: NSF, ONR, ARPA; government labs (NELC, NRL, LLL, LBL); MITRE and Rand.

Suggestions for panels are: A need for national information policy?; Volunteer vs mandatory standards; Reliance on private sector; Opportunities for technology transfer.

Issues of both national and international importance will be addressed. The program will provide an excellent opportunity for ACM '78 attendees to meet and interact with top policy-making officials within the government.

Additional suggestions for speakers, topics, and agencies are solicited. Contact Dennis Conti, NBS, (202) 921-3485.

Snoop Scoop

I've heard about "little birds" watching you, but "Hawks"?

What goulash was last seen using a rubber for an eraser?

Did you hear about the gopher seeing his shadow this year instead of the groundhog?

R.W. has shirts that wrinkle and unwrinkle with the tilt of the chest.

What two T.A.'s would be willing to split "Short and Sassy"?

What handsome professor doesn't get whistles but does get yodels?

S.S. will do anything for a free dinner, even pass the comps.

Here she comes, Miscellaneous!!!!

Who just got his curls clipped?

Graduate programs are now being offered in disco dancing, see S.G. and A.P.

What mouse plays when the cat is away?

Wear "Eau de Horse" cologne and drive your women to the stable like Hubert does.

"Meow, meow, meow, meow, BA CRAK, CRAK, CRAK, meow."

Dunkin' Donuts has "munchkins", CMSC has "Martin's".

Who has been mouth to mouthing it on MWF?

Rate Your Computer Center:

1st Rate — Systems staff performs miracles; User Services listens and helps with problems; Users contribute interesting software.

2nd Rate — Systems staff (almost) keeps up with machine-vendor software; User Services is good at ineffectual handholding; Users manage on their own.

3rd Rate — Systems staff uses special privileges to molest other users; User Services spys for Systems; there are almost no Users.

Professional News

Dr. G. W. Stewart has been granted a leave of absence to visit the University of Minnesota from January, 1978 through June, 1978.

Dr. J. Minker has been asked to serve on the Chancellor's Advisory Committee on Computers. He presented a talk "Logic and Data Bases" at the Computer Science Conference, Detroit.

Dr. H. Mills is recovering from surgery and will be returning to participate in a seminar on software design this semester.

Dr. R. Hamlet has been granted sabbatical leave for the 1978-79 academic year.

The Confession

Although one's confession is a matter between the priest and oneself, most confessions are taped, and the following excerpt was taken at St. Peter Wegner's Church on January 9 at 6:00 p.m. (The names have been changed to protect the guilty.)

Confessor: Bless me Father John, for I sinned. It has been a whole semester since I last looked at my used edition of Aho and Ullman. These are my sins:

I took off two hours Sunday night from studying for the comps to play Adventure.

I coveted by neighbor's Knuth.

I missed the colloquium three times this semester.

I stole the Alphard paper from the program library.

I took Hoare's name in vain five times.

I copied my neighbor's loop invariant.

I computed the wrong look-aheads on the LR1 comp question.

I spread the rumor that the comp would contain an inherited and synthesized attribute question on constructing address of identifiers using displays.

I disobeyed Floyd's axioms three times.

I committed unsavory acts with my copy of Gries.

For these and all my past sins I am sorry.

Father John: For your penance, recite Hoare's axioms backwards. Then read Ch 2-5 of Aho and Ullman and do all the double starred problems. Spend at least seven hours a week studying for the August comps. I think that is enough punishment. Do you wish to say anything?

Confessor: Well, uh, I kind of left out one sin:

I stole the Lighthill Summary report!

- A. Grad Student

VENEZUELA

The Department of Computer Science has developed close relationships with the Institute Venezolano De Investigaciones Cientificas (IVIC) located in Caracas, Venezuela. The relationships have resulted as a consequence of Dr. Marchello's initiative to have technical interchange between IVIC and the University of Maryland.

During the summer, a one week course was organized by Jack Minker on Artificial Intelligence, and presented at IVIC. Jack Minker, Chuck Rieger, Azriel Rosenfeld, and Raj Reddy (Carnegie Mellon University) were the lecturers.

Marvin Zelkowitz is visiting IVIC for one month and will be presenting a series of lectures on software engineering topics.

- Jack Minker

The Serults Are In

The results are in for the Fall Semester standings in the Grad-Faculty-Staff Intramural League. Computer Science is in 2nd place, trailing Civil Engineering by 67 1/3 points and leading AREC by 5 points. Industrial Education, last year's G.F.S. champs are currently in 4th place. During the Fall Semester, Computer Science had entries in tennis, horseshoes, golf, touch football, soccer, badminton, cross country, and basketball. We are now gearing up for the spring semester competition and hope to close the gap between Computer Science and Civil Engineering. Come out and participate with other members of the Department and the Center. Grad students, faculty, staff - male or female - all are welcome. The following sports are available.

SPORT	ENTRIES Open-Close	Play Begins
Table Tennis	Jan. 16-25	Feb. 1
Weightlifting	Jan. 17-31	Feb. 6-9
Bowling	Jan. 19-31	Feb. 12
Volleyball	Jan. 31-Feb. 14	Feb. 21
Softball	Feb. 15-Mar. 1	Mar. 13
Foul Shooting	Feb. 22-Mar. 8	Mar. 15
Wrestling	Mar. 1-15	Mar.28-30
Handball	Mar. 7-28	Apr. 4
Racquetball	Mar. 7-28	Apr. 4
Track & Field	Apr. 11-25	May 1-2

For Entry Blanks and Information Contact:

Bob Budd
Room 3365
X 4251

Our Own Technical Report List

Shapiro and Wand, "The Relevance of Relevance" (Indiana)

Papert, "Some Poetic and Social Criteria for Education Design" (Stanford AI Lab)

Siklossy and Roach, "Proving the Impossible is Impossible is Possible with Application to Robot Worlds" (Texas at Austin)

DeMillo, Dobkin, and Lipton, "Even Data Bases that Lie Can be compromised" (Yale)

Ode to an ALGOL Semicolon

Where shall I put thee
delimiter so free?
Not at the end
  Nor at the start
But only in the heart.
And if you are not where you belong
Then the next delimiter is "wrong"!

Wendy Kennard
CMSC 330