

Announcing Updates to ARPANET NEWS

To: Online readers of ARPANET NEWS

From: NEWS Editors

Two updates have been issued to the October NEWS; you can read them in Query by commanding:

a[ARPANETNEWS]  
s[how]u1

(and s[how]u2

and you can get a good print from NLS by:

l[oad] f[file] <NIC>ARPANEWSUP  
o[utput] d[evice] t[ty]

19777 Distribution

Peter Kirstein, William B. Kehl, Roland F. Bryan, James G. Mitchell, Jeanne B. North, Allen Newell, John McCarthy, Lawrence G. Roberts, Frank E. Heart, Edward L. Glaser, Thomas M. Marill, T. E. Cheatham, James W. Forgie, Keith W. Uncapher, Edward A. Feigenbaum, Leonard Kleinrock, William K. Pratt, David C. Evans, Douglas C. Engelbart, Bertram Raphael, Daniel L. Slotnick, Michael D. Kudlick, Jean Iseli, Richard W. Watson, Mil E. Jernigan, Nancy J. Neigus, Elizabeth J. (Jake) Feinler, Stan Golding, Steve G. Chipman, John P. Barden, Martha A. Ginsberg, Shirley W. Watkins, Janet W. Troxel, Connie D. Rosewall, Anita L. Coley, Carol J. Mostrom, Joshua Lederberg, Paul J. Nikolai, Robert J. Gronek, Rein Turn, Mark Medress, Franklin Kuo, Howard Frank, Robert L. Fink, Glenn J. Culler, Frank S. Cooper, Bruce G. Buchanan, Kenneth L. Bowles, Morton I. Bernstein, Paul Baran, Saul Amarel, Roy C. Amara, John E. Savage, Butler W. Lampson, William R. Sutherland, Thomas G. Stockham, Gene Raichelson, Michael O'Malley, Peter G. Neumann, Marvin Minsky, Robert E. Millstein, J. C. R. Lickliger, Robert M. Balzer, Herbert B. Baskin, Robert P. Abbott Leonard B. Fall, Peggy D. Irving, Roy Levin, M. P. McCluskey, Pitts Jarvis, Barbara A. Nicholas, Jacquie A. Priest, Terence E. Devine, Paul M. Rubin, Paula L. Cotter, O. A. Hansen, Dan Dechatelets, Nancy C. Thies, Robert Silberski, Marcia Lynn Keeney, Margaret A. (Maggie) Bassett, J. A. Smith, Leina M. Boone, Diana L. Jones, Nancy J. Neigus, Terry Sack, Frances A. (Toni) McHale, Lucille C. (Lucy) Gilliard, Ed J. Collins, Gary Blunck, John F. Heafner, Kathy Beaman, David J. King, Sue Pitkin, Jerry Fitzsimmons, Gloria Jean Martin, Roberta J. Peeler, Craig Fields, Margaret Iwamoto, Dee Larson, Robert E. Doane, Brenda Monroe, Jeanne B. North, Pam J. Klotz Cutler Michael B. Young, Michael A. Padlipsky, Schuyler Stevenson, L. Peter Deutsch, John Davidson, Thomas O'Sullivan, Sol F. Seroussi, Scotx Bradner, Robert H. Thomas, Michael J. Romanelli, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Jeanne B. North, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, James E. (Jim) White, A. Wayne Hathaway, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan, B. Michael Wilber, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, John T. Melvin, Kasee N. Menke, Ruth Ann McDermott, Angie R. Yingling, Michael M. Dervage, Carolyn E. Taynai, Easter D. Russell Jeffery B. Rubin, John F. Wakerly, Tom C. Rindfleisch, Leonard B. Fall, David L. Hyde, Gary Blunck, Tom P. Milke, Alan H. Wells, Chuck R. Pierson, Carl M. Ellison, Robert P. Blanc, Jay R. Walton, Terence E. Devine, David J. King, William L. Andrews, Milton H. Reese, Kenneth M. Brandon, Lou C. Nelson, Jeffrey P. Golden, Richard B. Neely, Dan Odom, Robert G. Merryman, P. Tveitane, Adrian V. Stokes, David L. Retz, Reg E. Martin, Gene Leichner, Jean Iseli, James E. (JED) Donnelley, William Kantrowitz, Michael S. Wolfberg, Yeshiah S. Feinroth, Anthony C. Hearn, Eric F. Harslem, Robert M. (Bob) Metcalfe, Bradley A. Reussow, Daniel L. Kadunce, George N. Petregal

Announcing Updates to ARPANET NEWS

(J19777) 19-OCT-73 10:27; Title: Author(s): Jeanne B. North/JBN;  
Distribution: /NLG NSAG PI MDK JI RWW MEJ NJN JAKE; Sub-Collections: NIC  
NLG NSAG PI; Clerk: JBN;

## USERS and USING problems

There seems to be some confusion about the status of USERS and USING. A journal message which I saw quite by accident (it was not sent to me), written by DHC, said that USERS and USING are to be combined, in fact HAVE been combined. If this is so I think I should know officially so that we here at NIC can be assured of maintaining an up-to-date mailing list as well as a correct identfile entry. 1

If the groups are combined, there is the problem of the group notes and their numbering. Up till now the groups have been separate and their notes have been numbered accordingly. If the two groups are combined, we'll have to decide on some new way of numbering; Mil Jernigan should be notified as to the best methods of doing that. 2

In any case, I think that Jake and Dave should get together as coordinators of the respective groups and decide what changes are going to be made; then I would appreciate it if they relayed the results on to me so that I can carry out my responsibilities. 3

19778 Distribution  
David H. Crocker, Elizabeth J. (Jake) Feinler,

In response to Dougs Journal Item(Ljournal,19746,), my oersonal opinion is that it would be useful, depending, of course, on an individual users way of working. My suggestion is better frased as a question initially: will sndmsg be accessable from the NLS level with a "go to" or some such thing? To easily get into that subsystem from nls would be of great advatage. Incidentally, I also have found IMNES very useful, although I have not utilized the "round trip" that heavily. I would like to know the reason that sndmsg is more attractive than Journal for DCE's usage...my reason is that Journal is too public and create the permanent record of everything without regard for its triviality, to wit this message....

1

19779 Distribution

Douglas C. Engelbart, James G. Norton, Charles F. Dornbush, Richard  
W. Watson, N. Dean Meyer, Duane L. Stone, Charles H. Irby,

More re <userguides,help,EXAMPLE>

There's another change to be made to the structure of the EXAMPLE branch in Help; this was due to my mistake in constructing it. Under (Editor) there is a (Record), which has one example. This is really two commands in all the other branches [and in <userguides, commands>]--hence we need an example following the name (On) and one following [or just copy the same one/ the name (Stop), both of these to be substatements of (Record); i.e.:

(Record)

(On)<cr>...

(Stop)<cr>...

instead of:

(Record)<cr>...

1

1a

1a1

1a2

1b

1c

1d



19780 Distribution  
N. Dean Meyer,

Reply to Mike Leavitt re News Inclusion

Mike Leavitt -

Jean Iseli was correct in saying that it wasn't an inadvertent omission in not connecting Larry Roberts with the Telenet item. One reason was as Jean says, that this information had been given, and it's not a secret. Another reason was that I just abstracted from the article, and the article didn't mention it. Another was that I hesitate to make points like that in the News so long as we have no one blessing our input before it goes worldwide. What I really appreciate is your having read it and sent a comment. Before the hardcopy News is finished, perhaps I can get a go ahead on the note you suggest.

-Jeanne N

1

19781 Distribution

M. R. Leavitt, Jean Iseli, Michael D. Kudlick,

Network Associate Group Membership

We are currently trying to update our group membership lists for the ARPA network, and we would be interested in finding out whether you wish to continue as an active member of the Network Associate Group.

1

Please give us an answer at the Network Information Center within the next two weeks. If no reply is received by that time, we will assume you are no longer interested in continuing your membership.

2

19782 Distribution

William T. Misencik, Richard G. Powell, Robert F. Hargraves, Robert M. Dunn, Philip H. Enslow, J. T. Sartain, J. T. Sartain, Marvin Zelkowitz, Louis F. Dixon, Connie Hoog, Don D. Cowan, Leonard B. Fall,

Some questions about COM and OP Directives.

Is there any way to simulate Columns to find out on the printer what  
Paging will be in COM?

1

Do I need a 0 when specifying COM measure 0.5?

2

Can I have a different footer on odd pages than on even?

3

19783 Distribution  
N. Dean Meyer,

MITRE-TIP Ident record...Recommendation..thanks!!!

Marcia,

The people mentioned in your note to me are really not desirous of receiving mail at their network addresses since they are infrequently on the network and anticipate their mail through the NIC journal system. The one person on the list who may be an exception is Dr. Dave Wood who maintains the directory MITRE at CASE-10. However, in his case, the NIC is more convenient for delivery of network mail. For completeness, Jack Benoit and Erika Graf-Webster maintain joint accounts as: JEDIR at both BBN and at CASE-10; however, these directories are apt to be dissolved in the near future, and your use of them might result in frustration on the part of users. I would suggest we designate delivery for all of the through the NIC Journal System.

A point that you may appreciate: when network-mail is forwarded from your Journal system to a network address, it is often simply an NLS link to the text of the item. Forwarding this is of dubious value to many users. I would appreciate your consideration in voting for a user option to have the entire item (text linked to) forwarded in lieu of the link in such cases. I believe you might find much support for that suggestion.

Further, I am appalled at what you say relative to a group coordinator maintaining his organizations (group) record in the ident system. I believe that this is a minimal responsibility for a group coordinator to assume and suggest that the NIC make this a requirement for someone to be the coordinator. To assist coordinators in discharging this responsibility, the NIC might publish a very small tutorial in how the group coordinator might accomplish this. I believe it is unfair to expect the NIC to maintain such records....especially in view of the ease in the coordinators doing it. I would strongly support such a move. Also, it would result in much more currency in the subsummed information.

Very best regards,            Jean

1



1978<sup>4</sup> Distribution

Michael D. Kudlick, James C. Norton, Marcia Lynn Keeney,

Trivial but worthwhile Journal Augmentation suggestion<sup>-</sup>

I find that very often it is most convenient to use your journal system in sending messages to assorted people. My experience in using the Journal system suggests two very important augmentations for the NIC to consider:

(1) In submitting a message as opposed to sending a statement or branch of a file, I find that I make mistakes in composition. I would very much appreciate inclusion of both a text substitution command and a re-type text command to avoid the embarrassment of sending text which contains misspellings, etc. Such a minimal text editing capability, I believe would find great use by network users.

(2) For those network users who have just "picked-up" NLS as opposed to learning it through a course, a journal prompt asking the user automatically for a title for the Journal submission, might result in real benefits relative to the indexes that are subsequently published by the NIC. I have used the Journal for six months without ever knowing about titling Journal submissions. I strongly encourage your consideration of this small augmentation.

1

19785 Distribution

Douglas C. Engelbart, James C. Norton, Michael D. Kudlick, Jonathan  
B. Postel,

(suggestion)

1

This is a formal suggestion that I would invite you to consider. I notice that often when journal mail is delivered, that at least the following attributes are prevalent:

1a

When I employ the RD subsystem at ISI (this subsystem is employed by a number of people) that journal forwarded mail appears as one message. That is, several journal items are amalgamated into a single message. This is undesirable since through RD, an index to messages is provided for selective management of the messages. It would be better to format each as an individual message.

1a1

For some items of journal mail, forwarded through the net, the subject associated with the message is not present; if you could somehow manufacture a subject (and this could be done), it would facilitate management of the messages by a large number of users who employ RD and use the indexing feature as a way of selectively administering their messages.

1a2

Some forwarded journal items consist only of links (pointers) to the actual text. This makes such submissions of dubious value to the user who has his Journal mail forwarded for convenience. I believe there may be reason to consider a user option to forward the "pointed to text".

1a3

To ensure better user utility from NLS, I would strongly recommend your adding a viewspec for Journal Items such that when the viewspec were invoked, a printout of initial file branch .1 or .2 with added viewspecs "xmb" would result in an index to items where each one were augmented with a subject. I believe this would render a real service to users.

1b

Thank you for your consideration of these suggestions, Jean

1c

19786 Distribution  
Douglas C. Engelbart,

## REQUEST FOR PROTOCOL NOTEBOOK

MARCIA: WOULD YOU PLEASE ARRANGE TO SEND A COPY OF THE ARPA PROTOCOL NOTEBOOK, NIC#7104 TO DR. SVERRE SEM-SANDBERG, MARIEBERG SVAGEN 21, S - 136 68 HANDEN, SWEDEN. DR. SEM-SANDBERG IS VICE PRESIDENT OF IFIP AND HAS EXPRESSED CONSIDERABLE INTEREST IN NETWORKING. I THINK HE IS A LEGITIMATE RECIPIENT OF THIS INFORMATION, BUT YOU MAY WANT TO GET MIKE KUDLICK'S OPINION ON THIS SUBJECT FIRST. LET ME KNOW WHEN YOU SEND THE DATA OR IF YOU HAVE RUN INTO A SNAG. THANKS MUCH. VINT

1

19787 Distribution  
Marcia Lynn Keeney,

re: (19773,)

Joe: No, your question makes no sense to me (or Jim Bair either, for that matter). As far as I can tell, it will put the value 2 in siml, branch to the else and put in the ### if the statement consists of ONLY one non-printing character. I don't know what you were trying to do. It might help to begin each program by laying out the path to the program's objective in comment statements before writing any code. Link to me next time you see me on. --Dean

1



19788 Distribution  
Joe P. Cavano,

## Comments on Recent JI Messages

Jean: re (19785,1) Journal Suggestions, (19771,1) NLS Collaboration, good ideas, particularly the one about discouragement to message senders who get no response to requests or suggestions. About sending messages... the retype text command you mention....isn't the control-r that exists that command??? I have found that several control-a's or w's back me up fast enough for most short messages to end up as clean as I want BUT I'll admit that most of the time I find it best to insert a statement , branch or plex somewhere in a file where I have full NLS editing commands available before sending the text via the Jouraal. Somehow things seem to grow into more useful messages that way...less restricted in development. I am also recommending that we prompt the user by asking for the title and the distribution for all journal submissions. Oh, I now see (19784,1) on Mitre-tip Ident.... Haven't read it yet..so no comment here. Again, I really enjoyed our visit last week and hope to build from there. This has been a VERY busy week upon my return, as you might guess. More later Bye Jim

1

19789 Distribution

Jean Iseli, Douglas C. Engelbart, James C. Norton,

re: 19739

Dirk: You may also wonder why the keys on this Execuport are smoking! I think it was trying to convert the new exec manual to NLS with my Input RUNOFF program. Still haven't figured out why it didn't make it. Those hours were late night though, so I'm not feeling too criminal.

1

19790 Distribution  
Dirk H. Van Nouhuys,

Thanks

Jim: Thanks for the response. Relative to the Journal Message editing, your point is will taken; maybe I should retract my suggestion for the time being. I am delighted you support the automatic prompt for title and distribution....many people will find this a REAL convenience!! I too look forward to the on-going collaborative dialog.....Thanks jim.

1

19791 Distribution  
James C. Norton,

NDM's Large Use of CPU One Week; reply to 19790

I did not mea that you should feel guilty, I just wondered if A) the programs that collect such information were running right and B) if they were how you managed to use up so much time. Your runoff program clearly runs off with cycles.

1



19792 Distribution

N. Dean Meyer, James C. Norton, Beauregard A. Hardeman,

New Patch

There is a new patch in the running NLS which will collect command frequency statistics automatically. Harvey did the patch and any questions should go to him.

19793 Distribution

Don I. Andrews, Charles F. Dornbush, Ferg R. Ferguson, J. D. Hopper,  
Charles H. Irby, Diane S. Kaye, Harvey G. Lehtman, Elizabeth K.  
Michael, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, James  
E. (Jim) White,

Call for Drafts of Quarterly Management Report

Fall has come and with it the Quarterly Management report. It should cover August 9 to November 9th. Once again I offer here a draft outline and ask several of you to write about various matters as your ident's mark below. Feel free to suggest changes in the outline. Branch (,last) shows the relevant parts of last quarter's report. Please have drafts of your subject to me by October 29th.

II MAJOR ACCOMPLISHMENTS

Network Information Center (MDK)

Dialog Support System (JEW)

Software Development (RWW)

Line Processor (GHI)

Analysis (PR)

Preparation for Workshop Utility (JCN)

III PROBLEMS ENCOUNTERED

Anyone should feel free to list problems if they are really important.

IV FISCAL STATUS

(JCN).

Last Quarter's report:

II MAJOR ACCOMPLISHMENTS

Network Information Center

During the past quarter, the major accomplishment has been a thorough review of the NIC: its costs, services, and plans for the future. The results of this analysis are outlined in our proposal to ARPA for a two-year extension of our contract beginning in February, 1974.

Upgrading and cleanup of the NIC Query Language is proceeding to make it easier to use and more powerful.

Dialog Support System

During the last quarter we received in excess of 150 requests for network Journal delivery in response to a

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2a  
2b  
2c  
2d  
2e  
2f  
3  
3a  
4  
4a  
5  
5a  
5a1  
5a1a  
5a1b  
5a2

## Call for Drafts of Quarterly Management Report

recent questionnaire distributed by the NIC, and we updated the Ident system accordingly. Many ARPANET Journal users are now regularly receiving messages and citations at their own sites via the network. 5a2a

Our FTP server process was modified to permit a network user to retrieve Journal files in sequential, unstructured form without explicit login to the ARC system or aid from NLS. 5a2b

Our File Transfer Protocol (FTP) server process was further modified to permit users to enter messages or files into the ARC Journal from their own local mail systems via the network, again without explicit login or use of NLS. 5a2c

Design work for the Multi-site Journal and Ident system is continuing. As an outgrowth of this work, we have designed and specified a mail protocol, currently under review by members of the Network Working Group, for general network use. 5a2d

Software Development 5a3

In this quarter, we brought into operation a group allocation system to control user login and thus allocate our computer resources. A study made by Analysis indicated that controlling access to the system (login) was an adequate resource allocation scheme. 5a3a

We designed and partially implemented a new command language interpreter and a new command language based on user feedback and training experience. 5a3b

We began work on Alpha-Numeric Display NLS to permit display NLS to run on many display terminals without graphics capabilities. We designed and built a Line Processor which uses Intel MCS-4 computer chips. 5a3c

A Network Graphics Protocol proposal was developed and submitted to the Network Graphics Group. 5a3d

We developed mechanisms for generation of a System Guide to NLS based on the object and source code. The guide consists of an alphabetic listing of all data and procedures used in NLS (along with comments, calling arguments, AND LOCATION IN SOURCE CODE FILES) and an index based on non-trivial words in comments on procedures. A cross reference facility shows what procedures call other procedures, etc. 5a3e

## Call for Drafts of Quarterly Management Report

Dex II is in operation (missing some of the more sophisticated features).	5a3f
The NLS Calculator was released to users.	5a3g
Analysis	5a4
The identity of the Analysis function within ARC has been emerging steadily. Over the last three months, Analysis has been working in the following areas:	5a4a
Analysis of the NIC.	5a4a1
Telephone survey of NIC Station Agents.	5a4a1a
Evaluation of costs of NLS support for a medium sized community of users.	5a4a1b
Survey of NIC-PSO work and expenditures.	5a4a1c
Analysis of evolutionary information centers.	5a4a2
Technological transfer to VELA community.	5a4a3
Analysis of needs for personal information management.	5a4a4
Definition of functions of Analysis and participation in proposal writing.	5a4a5
Analysis of office automation requirements.	5a4a6
Analysis of the Journal system.	5a4a7
Comparisons of text editors.	5a4a8
Comparisons of user accounts reported by SUPERWATCH and the "Accounts" files (There is still a discrepancy).	5a4a9
Login and duration of connection Statistics.	5a4a10
Preparation for Workshop Utility	5a5
Interaction with Tymshare on Utility computer preparations and staffing continued.	5a5a
Tymshare has selected a lead operator and a systems programmer. We are discussing operational procedures and the facility configuration.	5a5b

## Call for Drafts of Quarterly Management Report

We now estimate service will begin between October 15 and November 1.

5a5c

At ARC, we have hired a behavioral psychologist experienced in NLS who will coordinate training and user development for the Utility user groups.

5a5d

Our Utility systems programmer is working on procedures for quality assurance as new versions of NLS come into operation on the Utility.

5a5e

## III PROBLEMS ENCOUNTERED

5b

No outstanding problems.

5b1

## IV FISCAL STATUS

5c

Estimated expenditures and commitments to date are: \$1,740,000, excluding computer lease commitments. Funds required to complete the work within funding limitations are: \$530,000. Estimated date of completion of work: February 10, 1974.

5c1

19794 Distribution

Michael D. Kudlick, James E. (Jim) White, Richard W. Watson, Charles  
H. Irby, Paul Rech, James C. Norton,



## Documentation Review

SNDMSG JCN to DVN

1

-----  
 19-OCT-73 15:53:23,526  
 -----

Date: 19-OCT-73 1553-PDT  
 From: NORTON  
 Re: documentation review  
 - - - -

Dirk: I'd like to get a review session set up with you and me..with Jim Bair early next week. How about Tuesday am sometime? Can you direct me to what you consider to be the most current plan for the documentation set that you know of in the journal so i can review before? I did get a copy of the primer draft! from doug and have ooked thru it. I assume we aren't in productio on that yet...just a draft?? See you next week. Jim -----

1a

I assume by documentation you mean documenation of the command language as occasioned by the upcoming changes. The most recent discussion of schedule of any consequence is <jjournal,19255,3> from September 21st. The work that followed from the design review meeting of September 27th <kjournal,19433,>, mainly the decision to give the HELP data base a complex structure and the task of building that structure, have cost documentation about a month. <jjournal,19255,3> predicts printed documentaton 7 weeks from when we begin real writing, which we have not done.

2

<ljournal,19671,3> contains a relevant division of tasks without scheduleing. I imagine planning the User Guide in detail <ljournal,19671,3b5> as the process of taking a course outline, say<ijournal,17030,>, with minor modifications, and allocating the commands and allied maters, such as an explanation of syntax, or terminals, or recongtion modes, to the headings in the outline. I hope to get to that this week.

3

Yes, the first version of the Primer showing the new command language <journal,19640,> is a draft. I felt we had to have something to try out COM on. As you know I have added an alternative draft <journal,19795,>.

4

Documentation Review

(J19816) 22-OCT-73 10:12; Title: Author(s): Dirk H. Van Nouhuys/DVN;  
Distribution: /JCN JHB KIRK JMB NDM; Sub-Collections: SRI-ARC DIRT;  
Clerk: DVN;

David H. Crocker  
3804-E Boelter Hall  
University of California  
Los Angeles, California 90024

To:  
Access Copy

19817 RRALS

INFORMATION ACQUISITION COOPERATIVE

Submitted by:

David H. Crocker  
Computer Science Department  
3804-E Boelter Hall  
phone: 825-2368, 825-4733

Mike Ollson  
Student Intern  
Office of the Dean of Students

Larry Horwitz  
General Representative  
Student Legislative Council

Proposed Duration of Project: 12 Months

Amount Requested: \$9,604

1

ABSTRACT

In response to the growing need for complete and accurate information about agencies and assistance available to students on campus, a resource information sharing cooperative is proposed. The use of newly developed computer tools for the storage, maintenance, and printing of resources information is explained. Project goals and an operational model are suggested. Implications for future developments are discussed.

2

2a

## Introduction

3

As the number of community helping agencies grows, it becomes increasingly difficult for people to know which particular agency is best able to respond to particular needs. Those working for helping agencies encounter this problem most often, since they are frequently called upon to refer their clients to other agencies.

3a

There are two basic difficulties in having the needed information about available agencies:

3b

(1) Marshaling sufficient manpower (person-power) to be able to acquire up-to-date information;

3b1

(2) Maintaining (organizing) the information, once it is acquired.

3b2

The second problem is generally solved by hiring more clerical help; but since resource information acquisition is ancillary to agencies' primary goals, they are understandably reticent to spend the necessary money.

3c

Volunteer agencies are faced with the worse problem of not having any money, for this activity, in the first place.

3c1

Also because the acquisition task is of secondary importance to most agencies, they have difficulty in getting very many people interested in obtaining the information. Usually only one or two people are sufficiently motivated. Again, this is most acute for volunteer organizations.

3d

The COMBINED workforce, for a GROUP of agencies, is quite large. However, it tends to be difficult to get the agencies to coordinate their efforts.

3e

## Statement of Need

4

UCLA is quite representative of these problems; and, as such, provides an excellent environment for attempting to solve them.

4a

A large number of agencies and groups, such as Helpline, Campus Services Center, Student Counseling Center and SLC Community Services must aid and refer students, staff and the public. The appendix contains letters of support verifying this fact and emphasizing the need for a central, regularly updated pool of information.

4b

It is therefore proposed that a Machine Aided Resources and Referrals Cooperative (MARRC) be developed. 4c

If successful, the project will greatly assist the staff of UCLA's many student and administration agencies in THEIR goal of assisting students. It will become easier for students to quickly obtain answers to questions, because it will become much easier to find out who is best able to respond to any given question. 4d

Proposed Project Objectives 5

MARRC will seek to test the feasibility of meshing the activities of community-oriented UCLA agencies with newly developed and highly sophisticated computer technology. 5a

In addition, the project will attempt to develop an operational model for the use of the tools by these agencies. 5b

The most immediate product of the project will be a Resources and Referrals Guide containing complete and up-to-date information about available agencies. 5c

The Guide will attempt to provide subjective, as well as the more typical objective, information about agencies. In this sense, it will be much more than a telephone directory. 5c1

The extent to which the Guide succeeds in this attempt will heavily depend upon the information provided by participating agencies. It is significant that even after information has been entered about any particular agency, adding more (better? more complete and accurate?) information will be trivial. 5c2

Project Description 6

The approach proposed herein is primarily to augment, rather than replace or duplicate, the information acquisition activities of agencies. 6a

The participating agencies will be relieved of the burden of producing their own information directories and will in turn get directories which are more complete than would otherwise have been possible. 6a1

MARRC will accomplish its objectives by attempting to utilize the energy that is already available from various UCLA agencies for ACQUIRING resources information and, with a small additional group, allow the computer-based tools to ORGANIZE and present (print) the information and provide frequent and convenient updates to it.

6b

It is best to view the working relationship of MARRC as a cooperative, because the member agencies are actually in control of the information that is made available. They will provide the information MARRC will publish.

6c

Operationally, agencies will continue to obtain information about community resources.

6c1

The agencies will put in the same (or more, if they are so inclined) effort at information ACQUISITION that they have previously put in; and they will continue to obtain the same TYPE of information.

6c1a

MARRC will attempt to serve as a focus for the groups to consider what additional and alternative information they would all like.

6c1b

After acquiring the resources information, agencies will give a copy of it to the MARRC group. Because MARRC will get all of its information from participating agencies, the content of the Resources Guide produced by MARRC will be dependent upon them.

6c2

MARRC will incorporate the new information into the computer data-base. The information may be about new resources or may merely be a minor update concerning a resource already in the Guide (e.g., changed hours).

6c3

At regular intervals -- probably once a month -- updates to the Guide will be distributed? However, it will be quite simple to issue updates whenever they are needed.

6c3a

One of the most painful aspects to producing a Resources Guide is the index. By having the Guide on a computer, the task is greatly reduced; and the index can also be updated easily.

6c3b

A key principle of operation for a cooperative should be keeping in touch with the ideas and criticisms of the members. Hopefully, this may be called 'responsiveness' (on the assumption that the ideas and criticisms are acted upon). Since the clerical portion of producing the Guide will mostly be relegated to the computer, the personnel working for MARRC will be able to spend more of their time concerned with the satisfaction of participating agencies.

6c3c

If the feasibility of the MARRC concept and its operational model is indicated, an attempt will be made to expand the project to include several other University of California campuses which also have access to the ARPA Network and its computer tools.

6c4

This larger project will attempt to better determine the cost-effectiveness of the MARRC concept and to better evaluate the extensibility of its operational model.

6c4a

Federal funding will be sought for this expanded effort.

6c4b

#### The Computer-based Tools

7

The Stanford Research Institute Augmentation Research Center (SRI-ARC) in Menlo Park has recently developed extremely sophisticated text creation and manipulation tools [1,2,3], available on a computer attached to the Advanced Research Projects Agency (ARPA) computer communications network [4].

7a

UCLA is connected to the ARPA Network through the Campus Computing Network, Center for Computer-based Behavioral Studies, and the Computer Science Department.

7a1

The SRI-ARC tools will initially be available to the Cooperative for free, tho a larger effort will necessitate paying SRI between forty and fifty thousand dollars per year.

7b

Computer-based tools, in general, offer well-known advantages to non-computer techniques. Computers, after all, are excellent at simple, boring tasks such as index-building.

7c

The advantage to the SRI-ARC tools, as opposed to more prosaic text manipulation systems, is in the structuring of data into an outline (hierarchical) form and --- more importantly -- in the philosophical approach of the ARC researchers.

7d



They are attempting to put a person's office onto the computer. Tasks, such as document creation and modification, collaboration on current work, and transmission and receipt of messages, must be possible and easy.

7d1

The ARC researches have essentially created such a system.

7d2

## Evaluation

8

Due to the essentially experimental nature of the proposed project, evaluation will be an integral part of its operation, as indicated in the Implementation Plan.

8a

Questionnaires will be the primary source of evaluation data -- filled out by participating agencies and agencies listed in the Guide -- but verbal input will also be used.

8b

Questionnaires will cover such things as the desires, needs and expectancies of participating agencies, their satisfaction and the satisfaction of their clients with the Resources Guide, and suggestions they may have for improvement of MARRC's service.

8b1

At the start of the project, the Project Directors and the Evaluation Consultant will formulate the specific evaluation tools to be used.

8c

The printed tools, and the responses to them, will be recorded online, allowing significant facilitation of the evaluation process.

8c1

## Facilities

9

The recently (?) funded Community Resources Center has indicated an interest in housing MARRC; and Dean Byron Atkinson has indicated that space attached to the Campus Services Center desk is also available.

9a

Staff

10

MARRC will have two staff members: a 1/2-time Student Director and a 1/2-time Associate Director. Both will become proficient with the SRI-ARC tools.

10a

It is expected that the Director and the Associate Director will share responsibilities, though the Director will be primarily responsible for interacting with participating agencies and the Associate Director will be primarily responsible for managing the dataentry and maintenance.

10b

The size of the salaries for the two staff members is due to the length of the project (fifty-two, rather than twenty-five, weeks) and due to the nature and demands of the MARRC project.

10b1

The Director and Associate Director must necessarily be both technically and bureaucratically adept, beyond a level normally found in student projects. In this sense, the project demands a high degree of professionalism and must compete for the students capable of such performance.

10b1a

The Director and Associate Director will have little time for any other non-academic activity and therefore must be able to support themselves with their salaries. This includes half-time work during the summer.

10b1b

In order to select the best Director and Associate Director, it is suggested that a committee, consisting of one member of PTF, Mike Ollson, Larry Horwitz, and David Crocker, be constituted to screen applicants.

10c

Computer consulting services will be donated by David Crocker; and a graduate student in GSM, Sociology, or Evaluation will be found for evaluation consulting.

10d

Implementation Plan	11
1. Introduction (2 months)	11a
a. MARRC staff begins learning to use the computer tools;	11a1
b. Begin continuing consultation with participating agencies, relating to the style and content of questionnaires, the Resources Guide, etc.	11a2
c. Evaluation consultant and Director develop evaluation instruments;	11a3
d. Formulate style of information storage and presentation;	11a4
e. Begin acquiring resource information from participating agencies.	11a5
2. Preliminary Operation (3 months)	11b
a. Continue information acquisition;	11b1
b. Issue first attempt at Resources Guide.	11b2
3. Intermediate Evaluation (3 months)	11c
a. Review operational model and modify as needed;	11c1
b. Continue information acquisition and ongoing production of Resources Guide.	11c2
4. Full-scale Operation (3 months)	11d
a. Focus on improving procedures for updating the information-base;	11d1
b. Make requested and required refinements to the format of the Resources Guide.	11d2
5. Final Evaluation (1 month)	11e
a. Continue full-scale operation;	11e1
b. Review of operational models;	11e2
c. Final Report.	11e3

## Budget Summary

			12
Student Director, 1/2-time @ \$3.50/hr.		\$3,500	12a
Associate Director, 1/2-time @ \$3.00/hr.		3,000	12b
Computer Consultant		--	12c
Evaluation Consultant		150	12d
Computer Terminal @ \$140/month		1,680	12e
Computer production costs		400	12f
Paper bursting (Vice-President/Administration)		--	12g
Misc. production costs		300	12h
Postage		30	12i
Telephone @ \$12/month + \$10 toll/month		264	12j
Misc.			12k
Letterhead	\$ 30		12k1
Supplies	50		12k2
Reproduction (copies of info from agencies)	100		12k3
Binders, etc	50		12k4
Unknown extras	50	280	12k5
		-----	12l
	Total:	\$9,604	12m

## Comments:

The project's plans call for a twelve month operation. Therefore, arrangements will be necessary for maintaining accounts beyond the normal June 30 termination date.

Assorted minor costs, such as advertising the availability of the two staff positions, will be absorbed by the projects two sponsors.

## References

13

- (1) Engelbart, D.C. et al; "Computer-Augmented Management System Research and Development of Augmentation Facility"; Final Report, ARPA Contract F30602-68-C-0286, SRI Project 7101; Stanford Research Institute, Menlo Park, California; April, 1970 13a
- (2) Engelbart, D.C. et al; "Advanced Intellect-Augmentation Techniques"; Final Report, NASA Contract NAS1-7897, SRI Project 7079; Stanford Research Institute, Menlo Park, California; July, 1970 13b
- (3) Engelbart, D.C., et al; "The Augmented Knowledge Workshop"; AFIPS Conference Proceedings, Vol. 42, pp. 9-21, 1973 National Computer Conference and Exposition; AFIPS Press, Montvale, New Jersey; June, 1973 13c
- (4) Roberts, L.G. and Wessler, B.D.; "Computer Network Development to Achieve Resource Sharing"; AFIPS Conference Proceedings, Vol. 36, pp. 543-549, 1970 Spring Joint Computer Conference; AFIPS Press, Montvale, New Jersey; June, 1970 13d

## APPENDIX

(1) Letters of Supports

14

(2) "The Augmented Knowledge Workshop" (reference #2)

14a

(3) "Computer Network Development to Achieve Resource Sharing"  
(reference #4)

14b

14c

19817 Distribution  
James C. Norton, John S. Perry,

msg from JI

This note in lieu of Secondary Distribution for  
(Journal, JRNL15, J19785:gw):  
A message from Jean Iseli suggesting two additions to the Journal  
subsystem. ... Mike.

1



msg from JI

(J19818) 22-OCT-73 11:45; Title: Author(s): Michael D. Kudlick/MDK;  
Distribution: /JEW RWW; Sub-Collections: SRI-ARC; Clerk: MDK;

Status to Licklider on my thinking on collaboration meeting

Lick are you getting things I send to you in the Journal. They are being delivered to DMCG (is that the right place).

Status to Licklider on my thinking on collaboration meeting

Lick, I'm chugging along writing up my reply to your questions on the management system collaboration meeting and have my head pretty straight on the key issues and an approach, but it'll take a couple weeks to get them on paper clearly. If time is important I'm ready to chat on the phone anytime. One area ripe for collaboration is in the area of dialog support. There are several efforts with relatively little overlap working on aspects of the problem that if mutually supportable through some protocols could allow creation of a very exciting mutually supporting network service. I've asked Jim White who is in charge of our dialog support work here to begin gathering info on the various approaches and to think about what protocol like conventions would be required to tie them together and contact some of the other sites.

1

19819 Distribution

James E. (Jim) White, J. C. R. Licklider, John S. Perry,

Status to Licklider on my thinking on collaboration meeting

(J19819) 22-OCT-73 16:05; Title: Author(s): James C. Norton/JCN;  
Distribution: /JEW JCRL JSP; Sub-Collections: SRI-ARC; Clerk: JCN;

Lick the message you just got is from me (Dick Watson) I was logged in as Norton and forgot to change the author.

1

19820 Distribution

J. C. R. Licklider, John S. Perry, James E. (Jim) White,

(J19820) 22-OCT-73 16:07; Title: Author(s): Richard W. Watson/RWW;  
Distribution: /JCRL JSP JEW; Sub-Collections: SRI-ARC; Clerk: JCN;



User Programs Concepts for the HELP Data Base

Final version with DVN's changes.

## User Programs Concepts for the HELP Data Base

## (programming) user programming

In addition to the stock capabilities of NLS, users may select or create special functions using SRI-ARC's procedure-oriented programming language, L10. These programs may serve as complex filters through which you may view a file, or they may actually modify the file. Full documentation can be found in the L10 Users' Guide.

1

## (L10) programming language

L10 is the ALGOL-like procedure-oriented programming language used at SRI-ARC. NLS itself is written in L10. Special features and filters may be added to the system in the form of L10 programs. Documentation can be found in the L10 Users' Guide.

1a

## (content) analyzer

The viewspecs i, j, and k allow control over the NLS feature called the Content Analyzer. When in effect, only those statements which pass certain requirements specified in a filter will be printed. Some commands (e.g. substitute) can be set to work only on those statements which pass the Content Analyzer filter. Complex filters written in L10 can modify the NLS files. Documentation can be found in the L10 Users' Guide.

1b

## (filter) capabilities

A filter may be set up so that only statements fulfilling certain requirements will pass. The viewspecs i, j, and k control the effect of the filter. The Print command is always affected. Some commands (Copy, Delete, Move, Substitute) can optionally make use of the filter for the execution of that command only. A description of how to write filters can be found in the L10 Users' Guide.

1c

## (available) user programs

You can add to the stock NLS capabilities by writing user programs for special applications. These programs may serve as Content Analyzer filters, as special sort algorithms, or may modify the file. A library of available programs provides for many of the common applications. The list of available programs can be found in the file (user-progs,-contents,). They may be loaded and used through the programs subsystem.

1d

## (commands) in Programs subsystem

Control over user programs is through the Programs subsystem. Programs may be compiled, loaded into the user programs buffer, and used. A complete explanation of the commands accompanies instructions on using L10 to write filters and programs in the L10 Users' Guide.

1e

## (file) commands

## User Programs Concepts for the HELP Data Base

You may load existing user programs code (from the user program library) into your buffer space and run or institute it as a filter. After entering the Programs subsystem, Load File, Institute Program, and Run Program allow use of user programs. Complete documentation can be found in the L10 Users' Guide.

1e1

## (compiling) user programs

Once a program has been written as an NLS file, it may be compiled, either directly into your programs buffer buffer or into a file which may be subsequently loaded into the buffer. Compiling means translating L10 code into machine-executable instructions. The Compile command in the Programs subsystem allows text to be compiled to a file, to the buffer, or as a filter pattern. Complete documentaion can be found in the L10 Users' Guide.

1f

## (running) programs

Once a program has been loaded into the programs buffer, it may be used. It may operate by extending the power of viewspecs, of the sort command, by presenting statements in other forms than the customary tree, or it may be executed. Then viewspecs control its effect. If it is an executable program, the Programs subsystem command Run Program will pass control to the program. Control automatically returns to the user on the program's completion. Complete documentation can be found in the L10 Users' Guide. See also VIEWSPECS, SYNTAX PROGRAMS.

1g

## (instituting) compiled programs

Once a program has been loaded into the programs buffer, if it is a Content Analyzer filter, a Sort key algorithm, or a Sequence generator program, it must be Instituted as that function. Many programs may be loaded into the buffer at any time, but only one may be instituted for each function. The controlling viewspecs pass control to the instituted program only. Complete documentation can be found in the L10 Users' Guide.

1g1

## User Programs Concepts for the HELP Data Base

(J19821) 22-OCT-73 17:48; Title: Author(s): N. Dean Meyer/NDM;  
Sub-Collections: DIRT; Clerk: NDM;  
Origin: <MEYER>CONC.NLS;1, 22-OCT-73 17:47 NDM ; Title: Author(s):  
N. Dean Meyer/NDM; Distribution: /JMB DVN; Sub-Collections: SRI-ARC  
DIRT; Clerk: NDM;

Consultation

This has been discussed with JCN and should be discussed with DCE.

## Consultation

## Proposal for Consultation

1

I have been asked by Dr. Dave Conrath (University of Waterloo, Waterloo, Canada) to work with him on a joint consultation for Bell Northern Research in Ottawa (Phone call 4 Oct. 73). The people at BNR are: Gordon Johnson (principal contact), Mark Davies, and Bill Shore.

1a

## Consultation Topic:

1b

The use of the computer as a communication tool. This would involve contributions in two areas: (1) answering questions based on the data collected at RADC, which would be slanted toward their needs; (2) aiding in the design of a methodology for the analysis of man-computer-man systems.

1b1

## Background

1c

The study done at RADC utilized Conrath's Communication Tally Method to quantify the communications of approximately 40 professionals, half of whom were using a computer system that provided alternative communication modes (the AHI System) for both vertical and horizontal channels (see -- bair,secl,21c:g).

1c1

The study showed that AHI (AHI modes: SNDMSG, Journal, Linking, and Shared Files) was used extensively, even though the sample period of five days was relatively early in the progression toward an AKW. For example, it was used equally as much as written communication in the vertical channels. The underlying variables affecting the selection of specific modes were also discussed in the context of preliminary findings.

1c2

## Relationship to SRI

1d

BNR is a research and development organization jointly owned by Bell Canada and Northern Electric. I am aware that Bell Canada in Montreal is our client. However, BNR is distinct from the organization at Bell and accomplishes its research independently. We would not be applying knowledge gained from experience at SRI, nor influencing a client's decisions. We would rather be providing an interface to studies already completed and published or soon to be published. No conflict of interest is foreseeable and the consultation would be done on my own time.

1d1

1d2

Consultation

(J19822) 22-OCT-73 22:02; Title: Author(s): James H. Bair/JHB;  
Distribution: /JCN DCE; Sub-Collections: SRI-ARC; Clerk: JHB;  
Origin: <BAIR>CONSULT.NLS;2, 20-OCT-73 17:27 JHB ;

on-line document input by sectrys

there is evidence that sectrys can and do use computer editing systems with ease and facility. the secty at ucla-nmc daily uses the sex system editor to input and update documents, at mit several sectrys use the multics editor and runoff programs. One major block to sectrys use of computer systems is the selection of the terminal, sectrys being use to a ibm selectric are apt to be unhappy with a teletype, thus finding a terminal with a reasonable keyboard is worth the search, the other major point is the editing system to which the sectry is introduced nls is a bad choice it is far too complex and it is hard to identify a minimal subset, multics edm or tenex ded are reasonable.

1



19823 Distribution  
Alex A. McKenzie,

on-line document input by sectrys

(J19823) 23-OCT-73 06:43; Title: Author(s): Jonathan B. Postel/JBP;  
Distribution: /AAM; Sub-Collections: NIC; Clerk: JBP;

I would like to continue receiving the Traffic Statistics. (I am a  
Technical Liaison.)

1

19828 Distribution  
Alex A. McKenzie,

(J19828) 23-OCT-73 10:52; Title: Author(s): L. Peter Deutsch/LPD;  
Distribution: /AAM; Sub-Collections: NIC; Clerk: LPD;

tickler 1 - 11 Oct

Joe, am getting rid of first two weeks except for 1 day - And yes, I do have the complete month of November in my file...Bobbie

tickler 1 - 11 Oct

(oml) 1 October - Monday

0830 hrs. Branch Chief's Meeting

For FJT & Nelson - Massachusetts Computer Associates, Inc. meeting  
- Conference Room 1 at 1000 hrs.

News Brief items due into Becky Today. Completed.

Bobbie: Personnel Strength Rpt. due. Completed

ISIM - Evaluation of report, "Generalized Data Base Management  
Systems & Selected Air Force Applications" - Completed

1

1a

1b

1c

1d

1e

19829 Distribution  
Joe P. Cavano,



tickler 1 - 11 Oct

(J19829) 23-OCT-73 12:08; Title: Author(s): Frank J. Tomaini/FJT;  
Distribution: /JPC; Sub-Collections: RADC; Clerk: FJT;

Proposal for a New Family of NLS Editing Commands

(J19830) 23-OCT-73 12:49; Title: Author(s): James E. (Jim)  
White/JEW; Distribution: /NP SRI-ARC; Sub-Collections: SRI-ARC NP;  
Clerk: JEW;  
Origin: <WHITE>NPMSG.NLS;7, 23-OCT-73 12:47 JEW ;

Proposal for a New Family of NLS Editing Commands

● Comments are solicited.

Proposal for a New Family of NLS Editing Commands

INTRODUCTON

1

This is a proposal for a new family of NLS editing commands whose need I feel each time I compose an assembly-language source file using NLS. The problems I encounter arise because I worry about the geometry of statements (plexes, etc.), in addition to their content. Although my application is probably unique, I think the problem I face is a general one, with a general solution. Table building (e.g., in the Resource Notebook) is another application where the same problems arise.

1a

MY APPLICATION, BY WAY OF EXAMPLE

2

I attempt to make assembly-language programs readable both on- and off-line. I head each procedure with an asterisk box containing a description of the procedure's function and calling sequence (for the benefit of Output Processor listings); I tuck the boxes away in the file tree structure in such a way that I can suppress them with level clipping (for the benefit of on-line viewing).

2a

An example of such a box is the following:

2b

```

*****
***
***
***
***      -- SEND MAIL TO USER AT DISTANT SYSTEM --
***
***
***
***      ASSUMES:                RETURNS:
***
***
***      a -- distant user pntr  +1 -- unsuccessful
***
***      b -- local fn pntr      m -- err msg str pntr
***
***
***
***
***
***
*****

```

2b1

2b2

I build just one of these from scratch and then create each

## Proposal for a New Family of NLS Editing Commands

successive one by copying the previous one, and then 'cutting and pasting'.

2c

Consider the task of replacing the string 'local fn ptr' with some other string describing the argument passed in accumulator 'b' for the new procedure whose box is being constructed.

2d

I bug the first and last characters of the string in a Replace Text operation, and supply the new string. Inevitably, the new string differs from the original in length, and the operation leaves the three asterisks at the right out of alignment. I therefore must count (in my head) the number of SPs that must be deleted or supplied following the new string, and then execute the appropriate Insert or Delete Character operation to restore alignment.

2d1

A much more straightforward solution would be possible with a primitive like the following:

2e

R[replace] M[asured] T[ext] bug1 bug2 LIT CA

2e1

whose meaning were:

2f

Replace the indicated string of length LOLD with the literal of length LNEW. If LNEW > LOLD, delete the (LNEW-LOLD) characters which follow the new string. If LNEW < LOLD, insert (LOLD-LNEW) SPs following the new string.

2f1

## SOME EDITING COMMANDS PROPOSED

3

## CONVENTION

3a

The entity Text is used for simplicity in the examples below, but note that the entities:

3a1

Word  
Visible  
Link  
Number  
Character (this last one isn't very exciting)

3a1a

would also make sense.

3a2

[I don't know what to do with Invisible.]

3a2a

## REPLACING MEASURED TEXT STRINGS

3b

R[replace] M[asured] T[ext] bug1 bug2 LIT CA

3b1

## Proposal for a New Family of NLS Editing Commands

This operation would replace the indicated string of length LOLD with the literal of length LNEW. In addition, if LOLD differed from LNEW:

3b2

If LNEW > LOLD, the (LNEW-LOLD) characters which followed the indicated string would be deleted, or

3b2a

If LNEW < LOLD, (LOLD-LNEW) SPS would be inserted following the new string.

3b2b

## TRANSPOSING MEASURED TEXT STRINGS

3c

T[ranspose] M[easured] T[ext] bug1 bug2 bug3 bug4 CA

3c1

This operation would interchange the indicated strings of lengths L1 and L2, respectively. In addition, if L1 differed from L2:

3c2

The !L1-L2! (i.e., the absolute value of L1-L2) characters which followed the longer string in its new location would be deleted, and

3c2a

!L1-L2! SPS would be inserted following the shorter string in its new location.

3c2b

## INSERTING MEASURED TEXT STRINGS

3d

I[nsert] M[easured] T[ext] bug1 LIT CA

3d1

This operation would insert a copy of the literal of length L at the indicated destination. But first:

3d2

L characters at the destination would be deleted.

3d2a

The operation would therefore effectively overlay a section of text at the destination with the literal.

3d3

## COPYING MEASURED TEXT STRINGS

3e

C[opy] M[easured] T[ext] bug1 bug2 [to] bug3 CA

3e1

This operation would insert a copy the specified text string of length L at the indicated destination. But first:

3e2

L characters at the destination would be deleted.

3e2a

The operation would therefore effectively overlay a section of text at the destination with the specified text string.

3e3

## Proposal for a New Family of NLS Editing Commands

## DELETING MEASURED TEXT STRINGS

3f

D[delete] M[asured] T[ext] bug1 bug2 CA

3f1

This operation would (quite intuitively, I think) replace the indicated text string of length L with L blanks.

3f2

The operation would therefore effectively blank a section of text.

3f3

Before dreaming up the notion of measured text, I had envisioned defining a new Xset mode (i.e., X[set] M[ode] B[lanks] CA and then X[set] T[ext] bug1 bug2 CA) to set a string to blanks. I really think now, though, that the Delete Measured Text idea is a better one.

3f3a

## MOVING MEASURED TEXT STRINGS

3g

M[ove] M[asured] T[ext] bug1 bug2 [to] bug3 CA

3g1

This operation would be equivalent to:

3g2

C[opy] M[asured] T[ext] bug1 bug2 [to] bug3 CA

3g2a

D[delete] M[asured] T[ext] bug1 bug2 CA

3g2b

19830 Distribution

Dirk H. Van Nouhuys, Kenneth E. (Ken) Victor, Donald C. (Smokey) Wallace, Richard W. Watson, Don I. Andrews, Nps Np, Richard W. Watson, Charles H. Irby, A. Jim Blum, A. Analysis, Meredith (Reddy) E. Dively, Jeanne M. Leavitt, Rodney A. Bondurant, Jeanne M. Beck, Mark Alexander Beach, Judy D. Cooke, Marcia Lynn Keeney, Carol B. Guilbault, Susan R. Lee, Elizabeth K. Michael, Charles F. Dornbush, Elizabeth J. (Jake) Feinler, Kirk E. Kelley, N. Dean Meyer, James E. (Jim) White, Diane S. Kaye, Paul Rech, Michael D. Kudlick, Ferg R. Ferguson, Douglas C. Engelbart, Beauregard A. Hardeman, Martin E. Hardy, J. D. Hopper, Charles H. Irby, Mil E. Jernigan, Harvey G. Lehtman, Jeanne B. North, James C. Norton, Jeffrey C. Peters, Jake Ratliff, Edwin K. Van De Riet



Note to Connie McLindon, ARPA re: Workshop Architect Role

Connie: I'm pleased to hear of Steve L's reaction to your being the ARPA "Knowledge Workshop Architect" (KWA), though I imagine he isn't familiar with our terminology -- yet. I'm sending you a copy of our proposal to ARPA (18368,) for our extension contract starting 2/74. 1

That document outlines what we are about and what we plan for the next two years. The architect role is discussed in (14946,3c2c), our Proposal to ARPA for Workshop Utility service, which is part of (18368,) the overall proposal. Both of these proposals are in the process of being accepted now. 1a

Doug Engelbart is making plans to establish a community of architects (CKWA) where they may exchange ideas, experiences in their roles. Much of that dialog will be through the Journal/sndmsg medium. It may well be a very effective way for you to get into the role..and I would guess will start in a month or two. 2

We are considering holding an intensive one week seminar for new architects here at ARC...I'm not sure when, but in a couple of months I'd guess. I'll keep you informed as it shapes up. 3

I got the drift that you are plenty busy fighting the TIP and the present ARPA MIS. It's clear that working into the architect role shouldn't interfere with that. Hope it shapes up soon, so we can proceed. I'll await your indication that your'e ready to go farther. 4

The Workshop Utility Computer service was to start Nov 1, but I'd guess it will be Nov 15 or later now, due to equipment delays, contract negotiations being slow, etc. That's probably good from your standpoint, for it's not pressuring you. 5

The first ARPA-share use will be by 4 or 5 simultaneous NIC user jobs (many people) just being transferred over from the ARC machine to the Utility machine. Other ARPA use is still to be worked out. I'm talking with John Perry about this. Those initial uses by Tom O'Sullivan's CBI community, the VELA community, etc are not really in the area of your initial interest as architect (I guess?)...so I assume they will proceed on their own..but slowly. The area I would think you would be most interested in is the use of NLS in the IPT and/or other ARPA offices to perform tasks in selected application areas. That is the use that will have to wait until you have the time to learn the possibilities, analyze the ARPA needs (with our help) etc. I assume that there is no strong pressure to get into it..at least not for a month or so?? 6

19831 Distribution

Connie K. McLindon, John S. Perry, Douglas C. Engelbart, Richard W.  
Watson, James H. Bair,

Note to Connie McLindon, ARPA re: Workshop Architect Role

(J19831) 23-OCT-73 13:00; Title: Author(s): James C. Norton/JCN;  
Distribution: /CKM JSP DCE RWJ JHB; Sub-Collections: SRI-ARC; Clerk:  
JCN;

Thanks for your comments on my note of 10/18. Perhaps the solution to the "problem" of how to insert "editors'" comments into abstracted material is to put any appropriate comments in brackets following the text. This might be appropriate for other purposes as well, for example if the applicability of an item to the ARPANET community is not completely clear. In this case, something like: [Dr. Larry Roberts, former Network guru, is the new president of Telenet - see ARPANEWS 9/73 section ...] By the way I read the ARPANEWS religiously - during my morning coffee on the 8th of every month. Keep up the GOOD work. Mike Leavitt

1

19832 Distribution  
Jean Iseli, Jeanne B. North,

(J19832) 23-OCT-73 14:44; Title: Author(s): M. R. Leavitt/MRL;  
Distribution: /JI JBN; Sub-Collections: NIC; Clerk: MRL;

## Minisimulators

A user at UCSB-MOD75 is interested in mini computer simulators and assemblers available on the Arpanet - particularly ones for the NOVA and PDP-11. He is looking for assemblers similar to the palx available at BBN or the Applied Data Research 'mimic' simulator. If you have any information please contact: UCSB@ISI and mark message Attn: De Jong. Thanks, Jake Feinler@NIC.

1

### 19833 Distribution

Michael B. Young, Michael A. Padlipsky, Schuyler Stevenson, L. Peter Deutsch, John Davidson, Thomas O'Sullivan, Sol F. Seroussi, Scott Bradner, Robert H. Thomas, Michael J. Romanelli, Ronald M. Stoughton, A. D. (Buz) Owen, Robert L. Fink, Jeanne B. North, Steve D. Crocker, Thomas F. Lawrence, John W. McConnell, James E. (Jim) White, A. Wayne Hathaway, Patrick W. Foulk, Richard A. Winter, Harold R. Van Zoeren, Alex A. McKenzie, Abhay K. Bhushan, B. Michael Wilber, Edward A. Feigenbaum, Robert T. Braden, James M. Pepin, John T. Melvin, Donna R. Cooper, Jeffery B. Rubin, John F. Wakerly, Tom C. Rindfleisch, Leonard B. Fall, David L. Hyde, Gary Blunck, Tom P. Milke, Alan H. Wells, Chuck R. Pierson, Carl M. Ellison, Robert P. Blanc, Jay R. Walton, Terence E. Devine, David J. King, William L. Andrews, Milton H. Reese, Kenneth M. Brandon, Lou C. Nelson, Jeffrey P. Golden, Richard B. Neely, Dan Odom, Robert G. Merryman, P. Tveitane, Adrian V. Stokes, David L. Retz, Reg E. Martin, Gene Leichner, Jean Iseli, James E. (JED) Donnelley, William Kantrowitz, Michael S. Wolfberg, Yeshiah S. Feinroth, Anthony C. Hearn, Robert M. (Bob) Metcalfe, Bradley A. Reussow, Daniel L. Kadunce, George N. Petregal



AFSC Visitor

Information received from FJT:

Col. Cosic AFSC/DL Tel.981-2484 (a reserve officer) will be here in the afternoon of 2 nov. (friday) to visit and to discuss a Management Information System for afsc.

Topics to be discussed will include the following:

Management Information Systems

Relational data bases

Data management

Col. Cosic as the responsibility for writing a study for an Management Information System for afsc.

He is also going to talk to Roberti about Relational data bases. Frank suggested that we consider getting some Syracuse U backup.

According to Al Barnum the good Col is interested in establishing an Management Information System lab to help AFSC in the generation of an AFSC Management Information System. He is also quoted as desiring to set up a center of expertise in the area. Possibly at esd.

Additional little goodies:

Ray liuzzi will be unavailable for about three days. If this slows down our effort in preparing for the 7 nov pitch on an RADC Management Information System, or if Col Cosic's visit slows us down we should prepare a new memo for fjt signature to division asking for additional time. I suggested a year's extension, but nobody reacted to this.

1983 $\frac{1}{4}$  Distribution

Frank J. Tomaini, Rocco F. Iuorno, John L. McNamara, Duane L. Stone,  
Joe P. Cavano, Roger B. Panara, Duane L. Stone, William P. Bethke,

## Samples of Superwatch Graphs in Response to (19430,)

## INTRODUCTION

1

The following is in response to your journal item (19430,). You will find the list of parameters requested, some comments about the current status of these parameters, and graphs giving you a sample of the data available.

1a

Unless otherwise specified, the graphs are the average for all working days in September (Mon - Fri, 24 hours/day).

1b

If you have any further questions about this information feel free to contact either Jim or me (SRL).

1c

## PARAMETERS REQUESTED (19430,)

2

(superwatch) parameters of interest in superwatch

2a

\$ju - percent of total used time used by job.

2a1

\$su - percent of total used time used by specified subsystem.

2a2

\$uu - percent of used time used by user.

2a3

%pf - percent of real time handling page faults.

2a4

%sk - percent of real time spent scheduling.

2a5

%u - percent of real time spent running user programs.

2a6

%uu - percent of real time used by user.

2a7

&sk - percent of non-idle time spent scheduling.

2a8

&u - percent of non-idle time spent running user programs.

2a9

ch - characters per second input to system

2a10

chr - number of characters input to system per second.

2a11

fl - frustration level : total user wait time/used time.

2a12

gj - number of "go" or runnable jobs in system.

2a13

idl - percent of real time the system is idle.

2a14

iow - percent of real time spent ini/o wait.

2a15

rndx - response index : average of 'tgo', time jobs wait on golist.

2a16

## Samples of Superwatch Graphs in Response to (19430,)

sko - scheduler overhead; percent real time per schedule. 2a17  
 tgo - time jobs wait on golist 2a18  
 tg'n' where n=1,2,3,4 - time jobs wait on golist from queue  
 'n'. 2a19

## COMMENTS ABOUT PARAMETER CHANGES AND CLARIFICATIONS 3

The following parameters are no longer implemented as part of the  
 running Superwatch system: 3a

ch, rndx, tg0-tg4. 3a1

The following parameters are available only from a daily file,  
 (i.e. not a weekly or monthly average file): 3b

%uu, \$uu, \$ju 3b1

The following parameters need further clarification: 3c

\$su - a subsystem must also be specified; we chose TNLS, NTNLS,  
 DNLS, and NDNLS to send as samples. 3c1

\$uu and %uu - a particular user must be specified; we chose  
 NSRDC and sent the data from one day last week as a sample. 3c2

## TIME PLOT OF PERCENT OF USED TIME USED BY NSRDC FOR 10/17/73 4

```

8.8          *
8.4          *
8.0          ****
7.6          *****
7.2          *****
6.8          *****
6.4          *****
6.0          *****
5.6          *****
5.2          *****
4.8          ***** *
4.4          ***** *
4.0          ***** ****
3.6          ***** ****
3.2          ***** ****
2.8          ***** ****
2.4          ***** ****
2.0          ***** ****
1.6          ***** ****
1.2          ***** ****

```

Samples of Superwatch Graphs in Response to (19430,)

```

0.8          *****
0.4          *****
0.0 *****X

```

```

+-----+-----+-----+-----+-----+-----+
0:31    4:23    8:14   12:06   15:58   19:50

```

4a

TIME PLOT OF PERCENT OF REAL TIME USED BY NSRDC FOR 10/17/73

5

```

6.6          *
6.3          *
6.0          *
5.7          **
5.4          **
5.1          ***
4.8          ****
4.5          ****
4.2          ****
3.9          ****
3.6          ****
3.3          ****
3.0          ****
2.7          **** *
2.4          **** *
2.1          **** *
1.8          **** *
1.5          **** *
1.2          **** *
0.9          **** *
0.6          **** *
0.3          **** *
0.0 *****X

```

```

+-----+-----+-----+-----+-----+-----+
0:31    4:23    8:14   12:06   15:58   19:50

```

5a

TIME PLOT OF PERCENT OF SYSTEM USED IN TNLs FOR MONTH OF SEPTEMBER, 1973

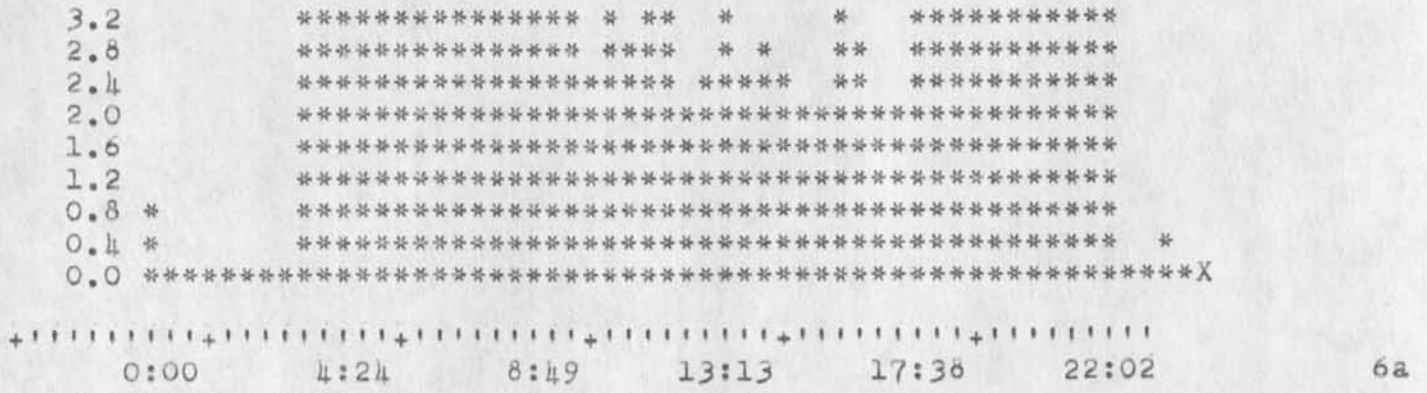
6

```

7.2          **          *
6.8          ***          *
6.4          ***          *
6.0          ***          ** *
5.6          ****          * ** *
5.2          ****          ** ** **
4.8          *****          *** ** **
4.4          *****          *** ** **
4.0          ***** * **          ***** **
3.6          ***** * ** *          *****

```

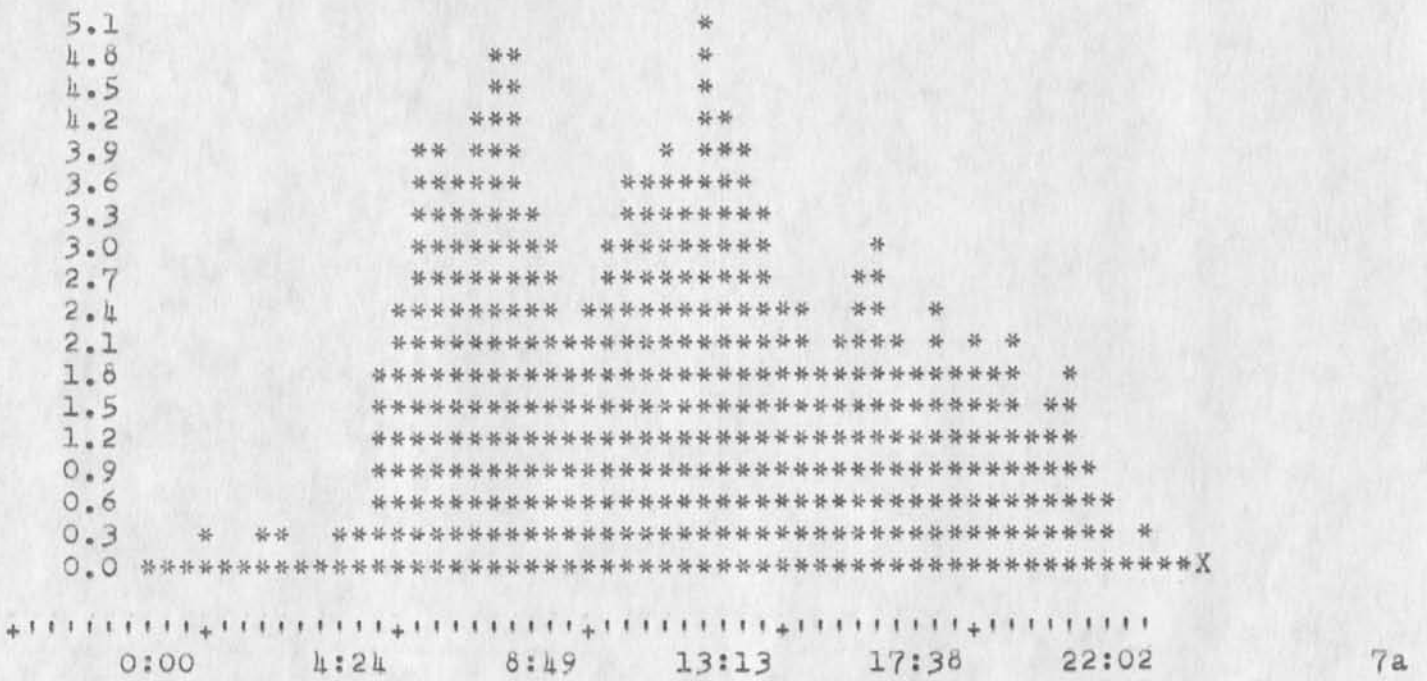
Samples of Superwatch Graphs in Response to (19430,)



TIME PLOT OF PERCENT OF SYSTEM USED IN NTNLS FOR MONTH OF SEPTEMBER, 1973

6a

7



TIME PLOT OF PERCENT OF SYSTEM USED IN DNLS FOR MONTH OF SEPTEMBER, 1973

7a

8

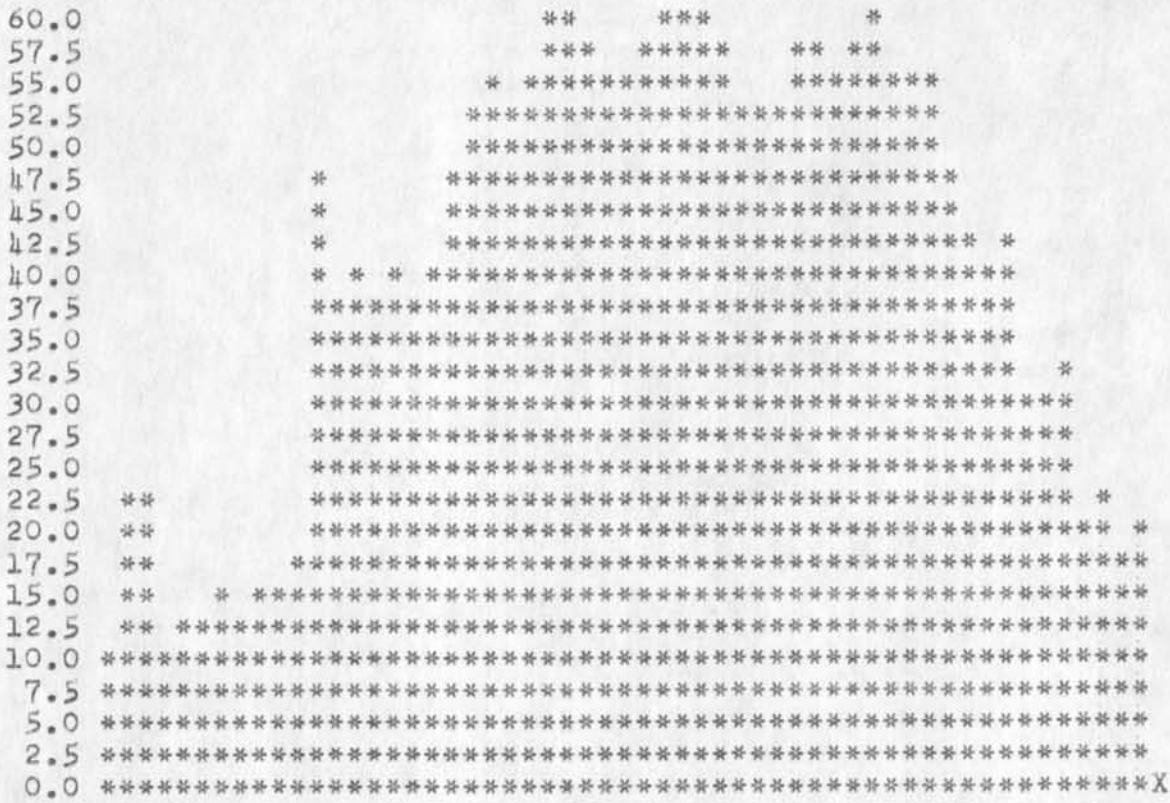








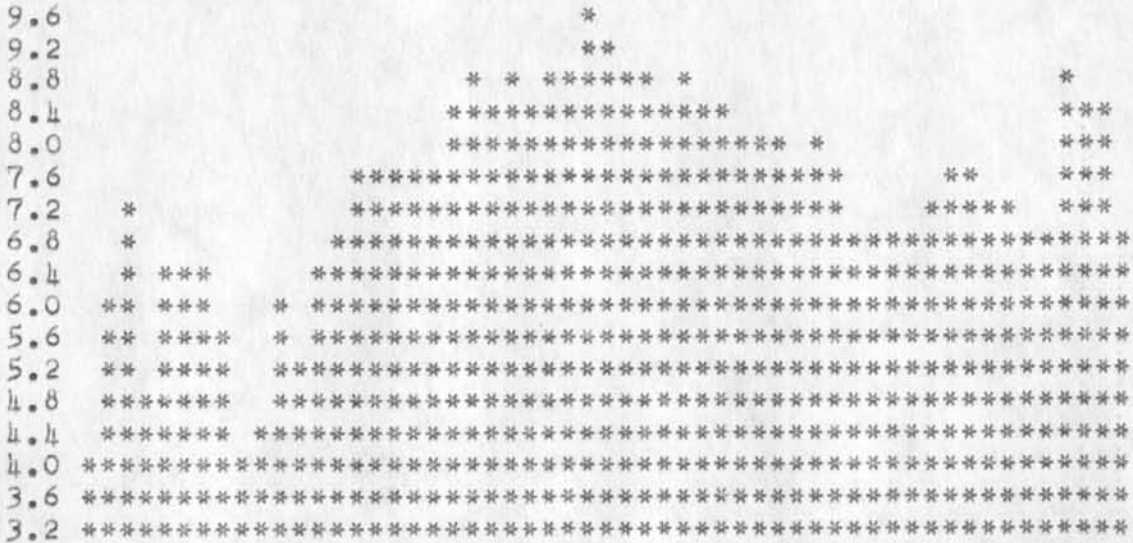
Samples of Superwatch Graphs in Response to (19430,)



12a

TIME PLOT OF PERCENT OF NON-IDLE TIME SPENT SCHEDULING FOR MONTH OF SEPTEMBER, 1973

13



Samples of Superwatch Graphs in Response to (19430,)

```

2.8 *****
2.4 *****
2.0 *****
1.6 *****
1.2 *****
0.8 *****
0.4 *****
0.0 *****X

```

```

+-----+-----+-----+-----+-----+-----+
0:00      4:24      8:49     13:13     17:38     22:02

```

13a

TIME PLOT OF PERCENT OF NON-IDLE TIME SPENT RUNNING USER PROGRAMS FOR MONTH OF SEPTEMBER, 1973

14

```

72.0 *****
69.0 *****
66.0 *****
63.0 *****
60.0 *****
57.0 *****
54.0 *****
51.0 *****
48.0 *****
45.0 *****
42.0 *****
39.0 *****
36.0 *****
33.0 *****
30.0 *****
27.0 *****
24.0 *****
21.0 *****
18.0 *****
15.0 *****
12.0 *****
9.0 *****
6.0 *****
3.0 *****
0.0 *****X

```

```

+-----+-----+-----+-----+-----+-----+
0:00      4:24      8:49     13:13     17:38     22:02

```

14a

TIME PLOT OF NUMBER OF CHARACTERS INPUT TO SYSTEM PER SECOND FOR MONTH OF SEPTEMBER, 1973

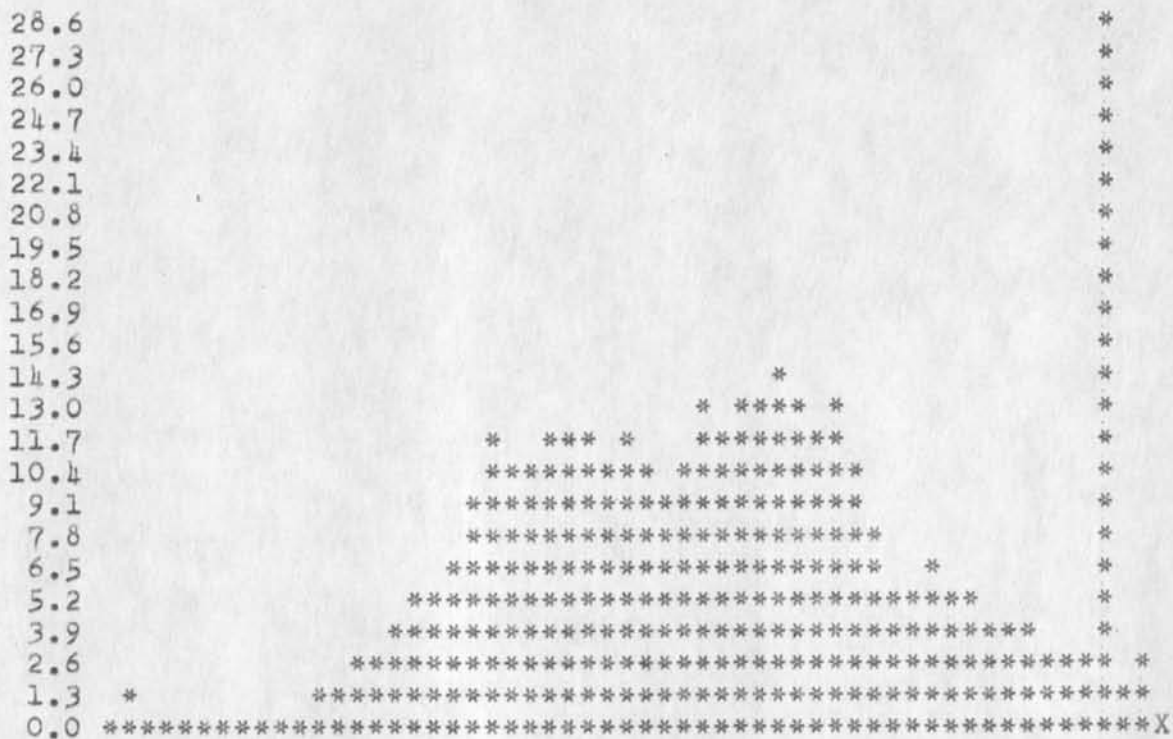
15

```

31.2 *****
29.9 *****

```

Samples of Superwatch Graphs in Response to (19430,)

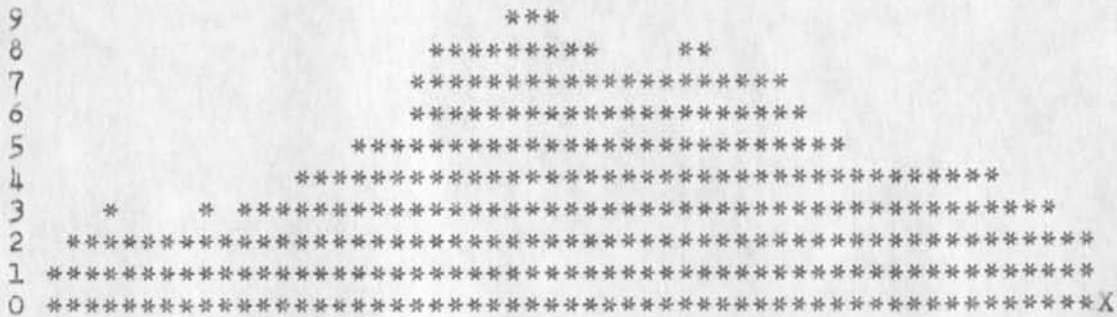


+ | | | | | | | + | | | | | | | + | | | | | | | + | | | | | | | + | | | | | | | + | | | | | | |  
 0:00            4:24            8:49            13:13            17:38            22:02

15a

TIME PLOT OF FRUSTRATION LEVEL FOR MONTH OF SEPTEMBER, 1973

16



+ | | | | | | | + | | | | | | | + | | | | | | | + | | | | | | | + | | | | | | | + | | | | | | |  
 0:00            4:24            8:49            13:13            17:38            22:02

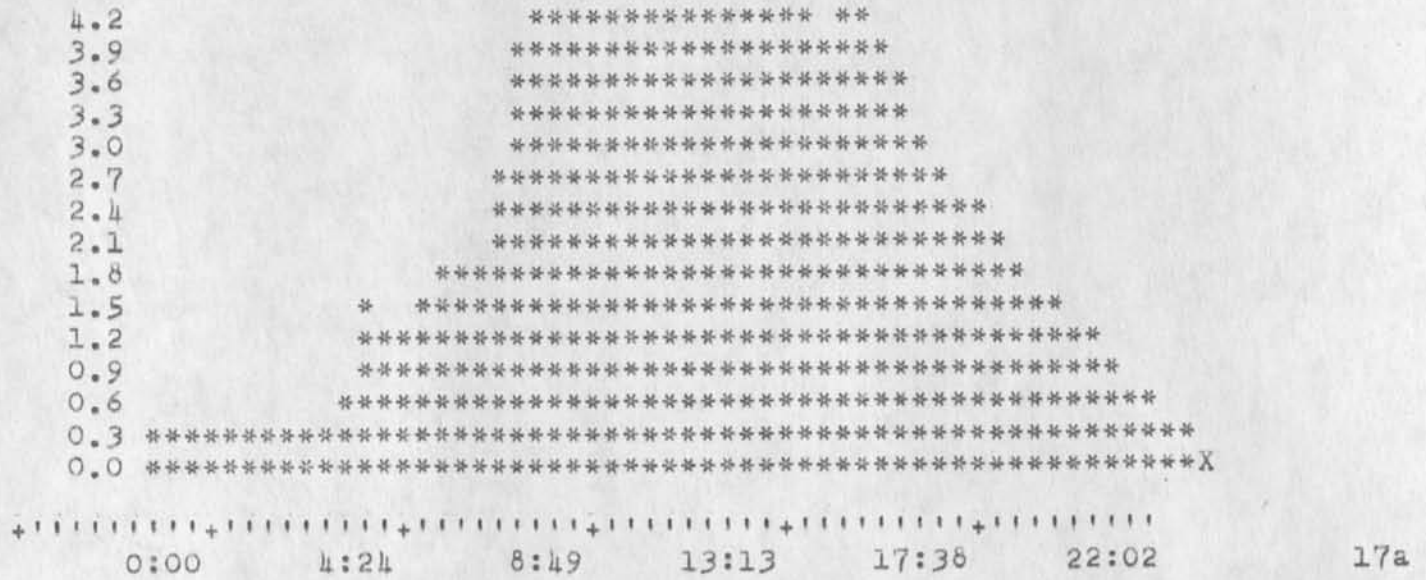
16a

TIME PLOT OF NUMBER OF GO JOBS FOR MONTH OF SEPTEMBER, 1973

17

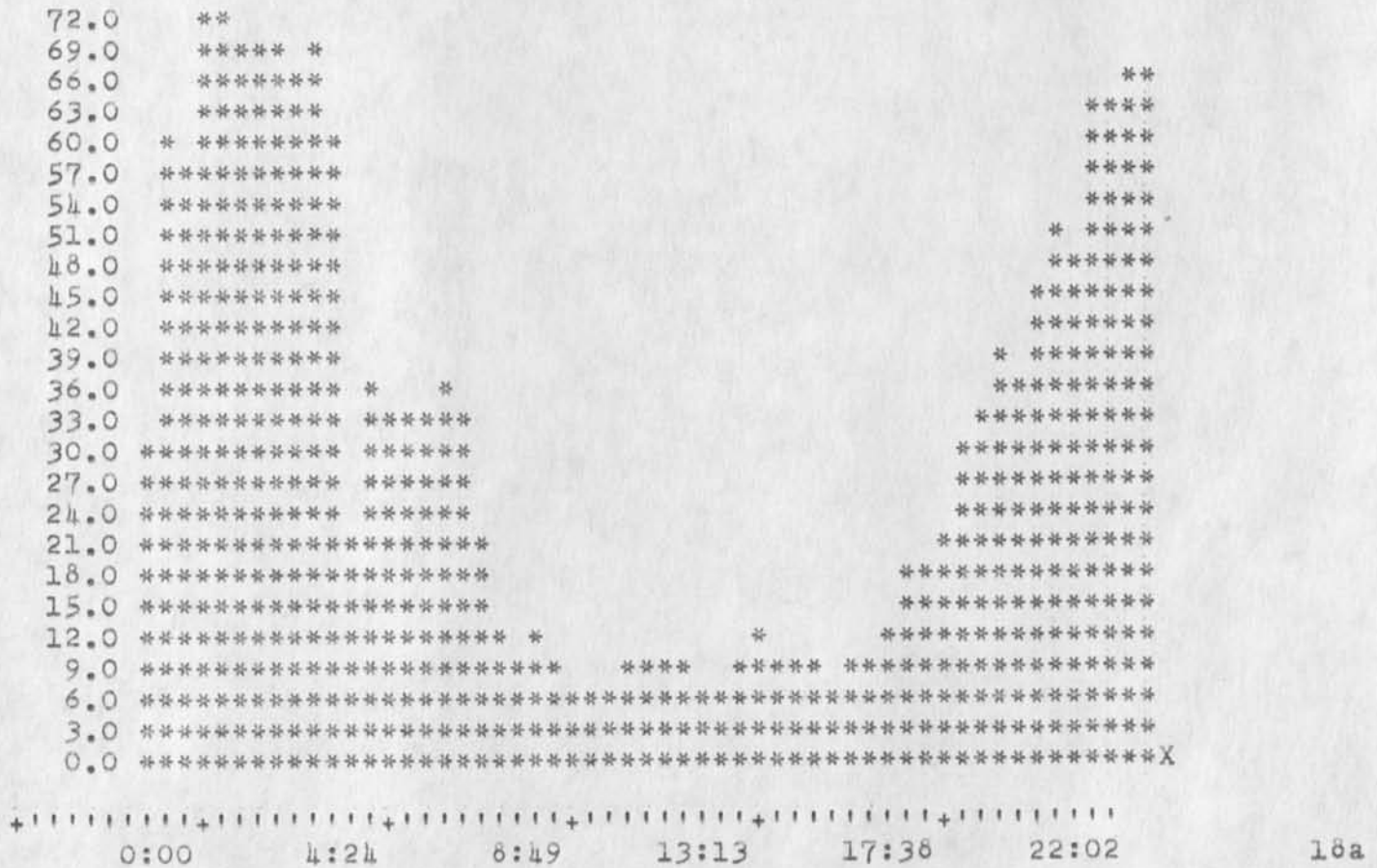


Samples of Superwatch Graphs in Response to (19430,)



TIME PLOT OF PERCENT OF IDLE TIME FOR MONTH OF SEPTEMBER, 1973

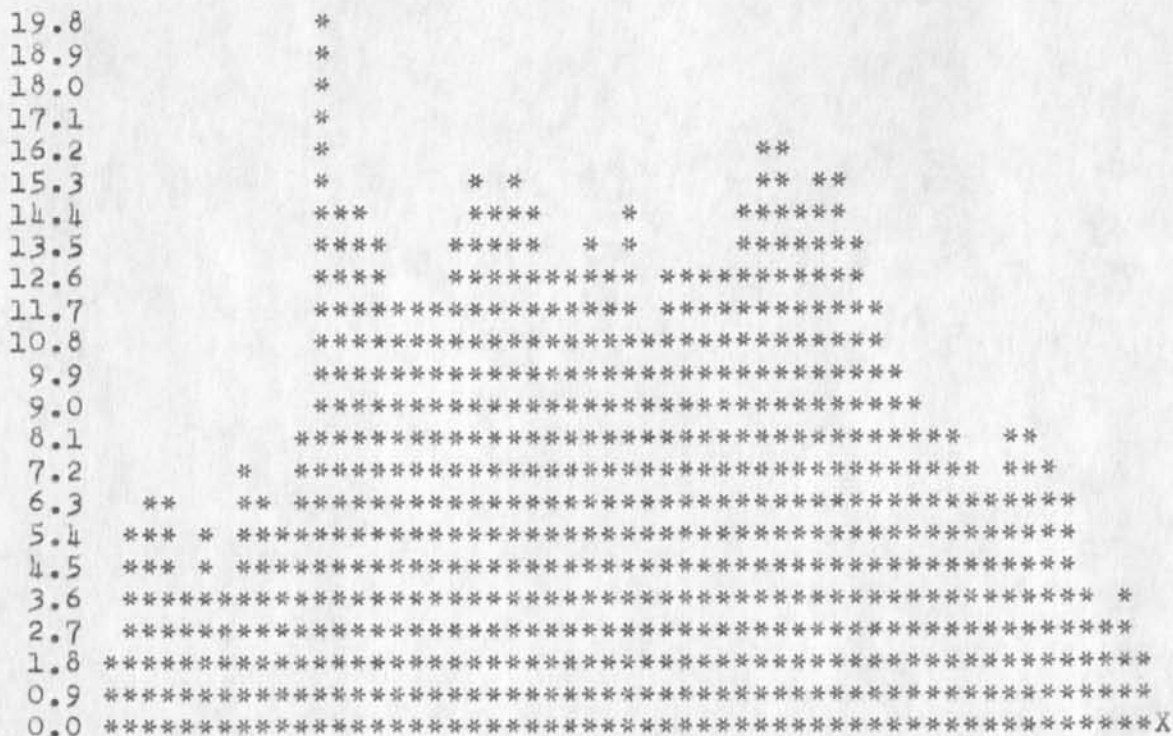
18



Samples of Superwatch Graphs in Response to (19430,)

TIME PLOT OF PERCENT OF I/O WAIT FOR MONTH OF SEPTEMBER, 1973

19

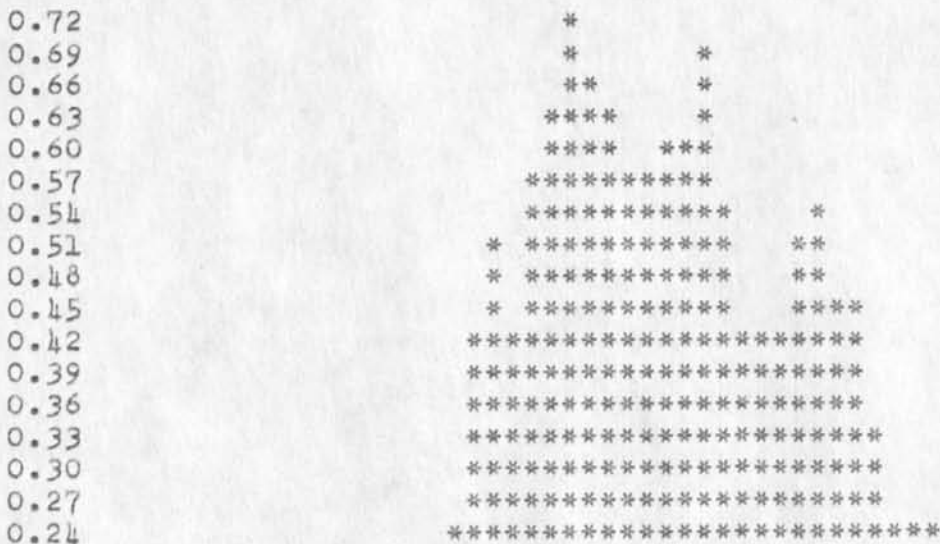


+ | | | | + | | | | + | | | | + | | | | + | | | | + | | | | | | | | | |  
0:00 4:24 8:49 13:13 17:38 22:02

19a

TIME PLOT OF PERCENT REAL TIME PER SCHEDULE FOR MONTH OF SEPTEMBER, 1973

20

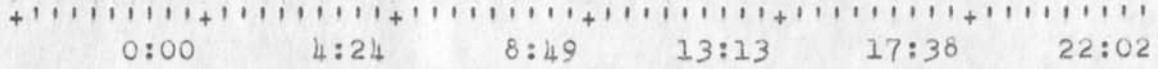


Samples of Superwatch Graphs in Response to (19430,)

```

0.21          *****
0.18          *****
0.15          *****
0.12          * *****
0.09          *****
0.06          *****
0.03 ***     *****
0.00 *****X

```



20a

19835 Distribution

Robert N. Lieberman, James C. Norton, Paul Rech,

My name is Dean Meyer. I am going to school while working at SRI-ARC. I would like to try to arrange for a demonstration of Computer Assisted Instruction for a class in Education. Is there a site on the Network that might allow me to do so? I was hoping just to give the students an idea of what CAI is and what it might look like to the children using such a system. Any advice would be appreciated.

Dean Meyer (NDM)

1



19836 Distribution  
Thomas O'Sullivan,

(J19836) 23-OCT-73 19:51; Title: Author(s): N. Dean Meyer/NDM;  
Distribution: /TO; Sub-Collections: SRI-ARC; Clerk: NDM;

idents, etc.

Marcia:

1

I try to keep the ident files for sdac up to date when the ident system will let me. WRS has left SDAC, but is with a company, ENSCO, which does indeed use the network. I tried to make him an independent, and also to delete his entry altogether, but both tries were unsuccessful. I don't know what you will want to do about him. ISI-TENEX is certainly the result of a time when I tried to change some "ISI"s to "USC-ISI"s so as to have the official host hostname, instead of the nickname, and got mixed up. I remember doing it, but had thought that I had gone back and fixed them up right. Except for ADO, ARH, MJM, and perhaps WRS, the address for SNDMSG should be the NIC, and Journal delivery should be hardcopy. I just looked at all the entries, and changed a couple, so that I hope they are all correct now. I noticed you had fixed PW for me, thanks. Let me know if there seem to remain any problems, and sorry for being such a trial. Cheers

2

Buz

3

19837 Distribution  
Marcia Lynn Keeney,

idents, etc.

(J19837) 23-OCT-73 20:02; Title: Author(s): A. D. (Buz) Owen/ADO;  
Distribution: /MLK; Sub-Collections: NIC; Clerk: ADO;  
Origin: <SDAC-TIP>MLKMSG.NLS;3, 23-OCT-73 20:00 ADO ;

Your presence is humbly requested

Jeanne, we of 2055 Santa Cruz Avenue wish to invite you to Pot Luck Dinner this Thursday Oct.25. Yvonne is having a pumpkin carving contest--bring a pumpkin and a knife--and is inviting many more people than usual. Should be different, "and a good time was had by all".---Jeanne (JMB), Yvonne, Barb, etc.

1

19838 Distribution  
Jeanne M. Leavitt,

Your presence is humbly requested

(J19838) 23-OCT-73 22:16; Title: Author(s): Jeanne M. Beck/JMB;  
Distribution: /JML; Sub-Collections: SRI-ARC; Clerk: JMB;