Jon, I checked with Jack about the messed up invitation to the ANTS meeting. Apparently the invitation went to Campi, instead of Ari or Russell, because Crocker was here when we were making the list and said he was the one who was most invloved. ???? I don't explain them. RFC is about ready to go out. Any time this coming week.

John 1

15629 Distribution
Postel, Jonathan B. ,

(J15629) 7-APR-73 06:36; Title: Author(s): Day, John D. /DAY;
Distribution: /JBP; Sub-Collections: NIC; Clerk: DAY;

DAY 9-APR-73 18:35 15630

Jon,
I have been toying with the ideas of processes starting up other processes on other hosts over the network and then being able to cooperate with them. Is the NWG working semi-actively on this or is it pretty dormant? I was considering sending out an RFC asking for everyone's thoughts on the subject to see if we could something going. Do you think it is appropriate? Or do you think it would be premature at this time?

John Day 1

(J15630) 9-APR-73 18:35; Title: Author(s): Day, John D. /DAY;
Distribution: /JBP; Sub-Collections: NIC; Clerk: DAY;

DHC 8-APR-73 22:49 15631

Grrrrr

I have just found (meyer,comopugaa,) and (meyer,compugdir) not online. They are referenced in the nic locator. 1

Grrrrr

(J15631) 8-APR-73 22:49; Title: Author(s): Crocker, David H. /DHC;
Distribution: /BUGS; Sub-Collections: NIC BUGS; Clerk: DHC;

DHC 9-APR-73 10:51 15632

SMFS strikes again

A strange thing just happened while I was using the new versioon of SMFS at BBN. I changed our username from U CALF to UCLA NMC and did a locate on CCNDOCJCL. I got a not archived response.

A while later i verified that it was still user UCLA NMC and did another locate. THis time I was told it was there...

I did the second locate because I tried to do a Copy-creat and was told a Duplicate file was already at UCSB. Strange.

Also; I did a news and got garbasage. Many extraneous characters and much mispelling. Could be formatting errors. 1

DHC 9-APR-73 10:51 15632

SMFS strikes again

(J15632) 9-APR-73 10:51; Title: Author(s): Crocker, David H. /DHC;
Distribution: /JEW; Sub-Collections: NIC; Clerk: DHC;

DHC 9-APR-73 10:54 15633

Upper level Clip for Output Processor

I recently attempted to find out how I could get a 'window' view of a file, thru the Output Processor. Apparently I can only do this with a special program.

I therefore suggest a directive, similar to LevClip, but to prevent showing statements ABOVE the specified level. 1

DHC 9-APR-73 10:54 15633

Upper level Clip for Output Processor

(J15633) 9-APR-73 10:54; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

Output Processor directivve values with split personalities

There should be the equivalent of push-pull capabilites in the Output Processor. This would allow a user to reset some parameter (e.g. ILev) to a temporary value, for a sequence of statements and then return to the old value, WITHOUT KNOWING wha the old value was. It would be much cleaner than having to respecify the old value.

Especially if you later decide to change this orogianl value and have to search thru the entire file for the places you had to reset to this value. 1

DHC 9-APR-73 12:10 15634

Output Processor directivve values with split personalities

(J15634) 9-APR-73 12:10; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

DLS 9-APR-73 06:40 15635

Response to Line Printer SOW

I guess this will have to be coordinated with the facility sooner or later.

Response to Line Printer SOW

Comments on Printer SOW. 1

Should we limit the printer speed to 800 lines per minute in the SOW? Is this a limitation of the 19.6 Kbaud port, or did you feel that anything faster would start costing more money? 1a

In what sence is the space considered a printable character?? You don't really want a symbol printed for space do you? 1b

To get vertical and horzontal tabs will we have to give the contractor a specific control character and data format?? Does the TIP manual have anything to say about that--or SRI? 1c

I wonder if we can be any stronger about the print quality statement. Is there any official gov't standard (I suspect that there is but I don't know where to find it). The way it reads now, we would be hard pressed to reject a printer if we didn't like the quality once it was delvered. 1d

Are the 20 line feeds and 3 form feeds just estimates of what might happen? ie where did these numbers come from? 1e

Should we also specify paper that is prepunched sit three holes? What is a years supply of paper. We will have to give a number probably, before we can get a firm bid from anyone. 1f

1g

15635 Distribution
Lawrence, Thomas F. ,

DLS 9-APR-73 06:40 15635

Response to Line Printer SOW

(J15635) 9-APR-73 06:40; Title: Author(s): Stone, Duane L. /DLS;
Distribution: /tfl ; Sub-Collections: RADC; Clerk: DLS;
Origin: <STONE>PRINTER.NLS;1, 9-APR-73 06:38 DLS ;

DLS 9-APR-73 06:46 15636

Problems with the Move Boundry command in DNLS/IMLAC

Have been having troubles with the move boundry command.
Whenever I try it I get a message "NLS out of space in LSRT" or
something close to this. This seems to have started happening
since the new EXEC was introduced. 1

DLS 9-APR-73 06:46 15636

Problems with the Move Boundry command in DNLS/IMLAC

(J15636) 9-APR-73 06:46; Title: Author(s): Stone, Duane L. /DLS;
Distribution: /bugs ; Sub-Collections: RADC BUGS; Clerk: DLS;

JFV 9-APR-73 10:15 15637

Analysis of the NLS Language: Phase II Design.

This document proposes a second phase of user/system analysis where the data recorded for each command interaction include user ident, execution time, etc. An analysis program would be run at night to re-initialize the file after producing statistics in graphic form. An estimate of file size is given.

Analysis of the NLS Language: Phase II Design.

JFV. 3-APR-73. ANALYSIS OF THE NLS LANGUAGE: Phase II Design. 1

The first phase of language analysis, that was completed last February (MJOURNAL,13788,1:w) has shown that average ranking of commands in typical NLS work was highly predictable. It also enabled us to generate a list of commands that were prime candidates for optimization either in future versions of NLS in L-10 or in the future MPS conversion. Some of that optimization has already taken place. A by-product of that analysis was the development of a user-oriented command usage display in matrix form, an idea that may be useful in training DNLS users. 2

The lessons that can be drawn from the first phase in terms of future design are i) there is no need for a permanent command usage analysis, because patterns are highly predictable and ii) A sampling of group or individual profiles and a command sequence study would be the most helpful information at the next level. 3

The following features are proposed in the Phase II implementation: 4

1) The system could be turned on and off from the console for selected periods of time. 5

2) Every command execution would be recorded into a single file for all users. For user XYZ the information written would be of the form:

XYZ.abc.t1.t2.t3 6

with XYZ the ident
abc the command
t1 the time when command typing began
t2 the time when user typed CA or CD
t3 the time when execution was completed 6a

The times are represented in the system by two half-words, the left one containing the day and the right one the actual time. In this particular application Charles points out that since the day remains constant we could use the left half for elapsed time and the right one for real (compute) time, thus giving us an opportunity to extract more valuable statistics. In other words, the data will have the form: 6b

XYZ.abc.t1/c1.t2/c2.t3/c3, c1, c2, c3 being compute times. 6b1

3) That information would be PMAPed into a large file in a new directory, to be set up so that all users can talk to it. 7

4) An analysis program would be used to produce the desired statistics and to erase the file. It would be under control of the operator. 8

5) The analysis program would take an ident as parameter and would ignore all user records that did not correspond to that ident. 9

6) For all acceptable user records the analysis program would have the capability to generate profiles similar to those of SUPERWATCH, but command-oriented, e.g. histogram of "load File" commands vs.time (for given ident) 10

EXAMPLE: LOAD FILE command for Ident XYZ 23-JUL-73

12 13 14 15 16 17 18 19 20 10a

7) The user program would also accumulate hourly and weekly statistics. The usefulness of having such statistics on a group ident basis is obvious in terms of future optimization of our Utility. 11

8) Another type of report that could be generated by the analysis program would be a table of command sequences, e.g. given the fact that a user types "Load File", what is the probability that the next command will be "Jump to Successor"? This might be formatted as a transition matrix. 12

9) FILE SIZE ESTIMATE: 13

Assuming that we ran all day without re-initializing the analysis file, and calling U the number of terminal users and C the number of commands per elapsed terminal hour, the size of the file after ten hours of operation will be: 13a

W = 50 C U words 13a1

If we assume U = 20 and C = 60 (which is a realistic figure on the basis of the findings of the Phase I study) the file would have to hold 60,000 words, or about 120 pages. 13a2

---------- 13a3

Analysis of the NLS Language: Phase II Design.

(J15637) 9-APR-73 10:15; Title: Author(s): Vallee, Jacques F. /JFV;
Sub-Collections: SRI-ARC; Clerk: JAKE;
Origin: <VALLEE>PHASE2.NLS;2, 9-APR-73 10:10 JAKE ;

JHB 9-APR-73 06:20 15638

Trip Report, Wash. DC, 2 Apr 73

This is for AHI people on-line, hardcopy forthcoming from ARC/Journal for transmission forward. Note: We need space and ID for Col. Danielian's shop. Send messages, etc. to them at RADC with a note at the beginning of the communication stating the recipient''s ID/Name. (Borden also in RADC.)

Trip Report, Wash. DC, 2 Apr 73

TRAVEL DUTY REPORT 1

Name(s) of Traveler(s): James H. Bair, Capt. 1a

Name and address of place(s) visited: AFXOA, Pentagon 1b

Period covered 1c

From: 2 Apr 73 1c1

to: 7 Apr 73 1c2

# of days: 5 1c3

Purpose of visit: To train Maj. Logan & meet with Col. Daneilian on AHI. 1d

Persons contacted: Col. Danielian, Majs. Logan & Reder 1e

Minutes available? (yes or No--if yes when and where): no 1f

Contract Number(s): N/A 1g

Project Number: ARPA 1h

Task Number: 1i

Commitments made? (yes or no): no 1j

Follow up requirements? (yes or no--if yes complete next 3 items) 1k

Date required: no 1k1

Responsible agency or individual: no 1k2

Action item: no 1k3

Summary of events: 1l

Maj. Logan was thoroughly trained (brought up to speed) on TNLS/AHI. 1l1

Some of the important items covered were:
Send message, Linking, Journal system, editing intrafile, interfile, & interdirectory, the viewspecs system, and addressing. 1l1a

Trip Report, Wash. DC, 2 Apr 73

Discussions were held on the application of AHI to Col. Danielians shop. It was concluded that he should remove the MTST that is causing some difficulty, and replace it with either a Communicating Mag Card (IBM) or a communicating 2 tape or two card Radactron Word Processor. This would permit access to AHI with a printout capability, as well as a terminal for secretarial use. In this way AHI can be used meaningfully in their shop and act as a prototype demonstration of some of the services to Air Staff. 1l2

Col. Danielian was impressed by AHI and began to understand what it is. It was concluded that it is not best applied to form data retrieval such as the FRAG orders they were interested in putting on-line. 1l3

The BR-700 system for keeping track of military aircraft schedules, etc. was demonstrated. 1l4

Date: 9 Apr 73 1m

Symbol: ISIM 1n

Traveler: James H. Bair 1o

15638 Distribution

Stone, Duane L. , McNamara, John L. , Kennedy, Edmund J. , Rome Air Development Center (ISIM) ,

Trip Report, Wash. DC, 2 Apr 73

(J15638) 9-APR-73 06:20; Title: Author(s): Bair, James H. /JHB;
Distribution: /dls jlm ejk radc ; Sub-Collections: RADC; Clerk: JHB;
Origin: <BAIR>TRIP.NLS;1, 9-APR-73 06:11 JHB ;

JHM 9-APR-73 12:42 15639

message one

This is message number one 1

15639 Distribution
McAfee, JOHN H. ,

JHM 9-APR-73 12:42 15639

message one

(J15639) 9-APR-73 12:42; Title: Author(s): McAfee, JOHN H. /JHM;
Distribution: /JHM; Sub-Collections: NIC; Clerk: JHM;

test

15640 Distribution
Iseli, Jean ,

(J15640) 8-APR-73 16:37; Author(s): Iseli, Jean /JI; Distribution: /JI; Sub-Collections: NIC; Clerk: JI;

TITLE:Effort Write ups
COMMENT::I am going to start using your task write ups for a number of uses .The first use is to give FT and BB a monthly report on the progress of the section.In BB case it means thaat your write ups will be on -line to him since I have links to all of the writeups in my report.It is therefor critical that you update the status portion of your effort write up by the 10th of each month.
AUTHOR(S)JLM
DISTRIBUTION:ejk ral rc2 jwj dva wpb fsl wer rfi fps tjb2 red2 dal rbp jlm jpc dls mdp jrs rkw tfl jhb radc
SUBCOLLECTION:
CLERK:JLM
GO.

1

(J15641) 9-APR-73 13:32; Author(s): McNamara, John L. /JLM;
Sub-Collections: RADC; Clerk: JLM;

Memo to myself re MPS schedule

Predicted arrival times of various MPS features: 1

- Language reference manual: 8/73 1a
- New data definition and control structures: 10/73 1b
- Complete interpreter: 8/73 1c
- Compiler equal in code quality to L10: 12/73 1d
- Software engineering aids (x-ref, catalog): 10/73 1e

(15497,) misses the point. A system developed without regard to design or documentation and from the implementation rather than the facility end is not the way to go. 2

LPD 6-APR-73 19:01 15642

Memo to myself re MPS schedule

(J15642) 6-APR-73 19:01; Title: Author(s): Deutsch, L. Peter /LPD;
Distribution: /LPD; Sub-Collections: NIC; Clerk: LPD;
Origin: <DEUTSCH>PRED.NLS;3, 6-APR-73 18:46 LPD ;

Not being able to go to the exec whle inputting a Journal message is a bummer Even if you just want to talk to someone who has linked to you, there is an obnoxious meessage "Journal Process Aborted by ↑C" and it throws you back to the *. It seems to me that this message is only necessary in the case when you do a ↑C after saying Go -- alternatively, if the Journal is intercepting the ↑C itself, have it create a SUBSIDIARY exec instead of going to the top. 1

(J15643) 7-APR-73 13:12; Title: Author(s): Deutsch, L. Peter /LPD; Distribution: /NP; Sub-Collections: NIC NP; Clerk: LPD;

LPD 7-APR-73 13:21 15644

Your comments about NLS/ECL are better

I'm only sending this to you since it would probably just rub JGM the wrong way

LPD 7-APR-73 13:21 15644

Your comments about NLS/ECL are better

I like your response to my ECL suggestion: it seems much more to the point than the NMDT's. Jeff Rulifson, Larry Tesler, Bill Duvall, and I (in varying amounts) are going to be doing experimental systems of exactly the kind you suggested -- in LISP, though ECL would be even better if its "helpfulness" had evolved a little further -- and I agree our motives are not those of the MPS people. The thing that disturbs me is that I'm not sure I see the proper balance between MPS as research into and development as a software engineering system, on the one hand, and MPS as the specific vehicle for re-implmentation of NLS, on the other. I know the two really overlap, of course, but this has been THE problem throughout MPS' history and the main reason why I dropped out of it. 1

LPD 7-APR-73 13:21 15644

Your comments about NLS/ECL are better

(J15644) 7-APR-73 13:21; Title: Author(s): Deutsch, L. Peter /LPD;
Distribution: /WHP; Sub-Collections: NIC; Clerk: LPD;

Reply on NLS/GCOS comparison

I have read your draft (bair,texted,) and feel it is generally pretty good, although it shows an obvious bias in favor of TNLS. I have two classes of specific comments: on your choice of GCOS as a comparison, and on some specific omissions that make TNLS look better than I feel it should. 1

On GCOS: 2

GCOS may well be representative of commercial text editors -- I hope not However, the 940 QED system, also available commercially, overcomes a number of GCOS' worst defects. 2a

Reading and writing of files is done entirely within QED. There is a command to append a file or part of a file (by line number) to the current working area and to write all or part (by line number) of the working area on a file. Other directories may be mentioned; the default access permission is read-only (I think). 2b

As in TNLS, addressing is integrated into the command, e.g. to print the second line following the current line through the one containing the string "END" the command is: .+2,[END]/. 2c

QED has "string buffers" which alleviate a problem I find quite annoying in TNLS: there is no way (except for Markers(?)) to find a piece of text and then mark or save it for subsequent moving, copying, etc. QED allows 36 buffers, each of which can be filled with material either typed in or extracted (destructively or not) from the work area. A text buffer can be mentioned using a control character as part of ANY literal input; thus one can search repeatedly for a string, insert multiple copies, etc. This also allows a somewhat less clumsy "cut and paste" operation. 2d

On the whole, however, I agree TNLS has unique addressing and access features that are not present in any other systems. 2e

On more global issues: 3

You fail to distinguish between features that exist courtesy of the operating system and those that exist within TNLS. For example, the additional protection flexibility in TNLS is entirely provided by TENEX -- TNLS has absolutely no knowledge of protection at present. Similarly, the "version" scheme of file backup is a property of TENEX. Both of these are available to any editor (such as TECO) that runs under TENEX. 3a

Also, you do not mention the fact that TNLS requires many

"handshakes" between the user and the computer for each command, and that TNLS output tends to be verbose. For example, to print a line addressed by content, the following scenarios are required: 3b

QED: 3b1

[ABC]/ 3b1a

[the line is printed] 3b1b

One interaction, two lines of output. 3b2

TNLS: 3b3

P[rint] S[tatement] [ABC] (CA) (CA) 3b3a

[the line is printed, including a blank line before and after] 3b3b

Four interactions (P, S, CA, CA), four lines of output. 3b4

The extra interactions impose an annoying psychological burden when the computer is heavily loaded, since the user must wait for the computer to respond or else be constantly typing ahead; the extra output is time-consuming on 33 and 35 teletypes and also produces twice as much paper to paw through when trying to locate past material. 3c

You also do not mention the relative costs of the two editors. While I personally believe that NLS could be implemented much more economically, it is true that the GCOS editor, QED, or TECO could easily be implemented on a mini-computer (in fact, the editor for the Data General NOVA line is a stripped-down TECO), whereas NLS would require much more work. This point was the principal one in the NLS-WYLBUR comparison. The chief counter-argument is that the increased effectivenes of NLS users more than makes up for the increased expense, but you should mention both arguments since I don't believe there are yet any data to support the latter (unless RADC has some). 3d

Finally, I don't believe you lay sufficient emphasis on what I consider the most remarkable property of the NLS system: the integration of diverse subsystems around a central core. No other editing system has anything like it (except BBN-LISP, which is idiosyncratic in many other ways and far more expensive than NLS). 3e

LPD 7-APR-73 14:19 15645

Reply on NLS/GCOS comparison

I look forward to a more finished edition of your comparison; I will want to distribute it to some people at PARC too. 4

15645 Distribution
Bair, James H. ,

LPD 7-APR-73 14:19 15645

Reply on NLS/GCOS comparison

(J15645) 7-APR-73 14:19; Title: Author(s): Deutsch, L. Peter /LPD;
Distribution: /JHB; Sub-Collections: NIC; Clerk: LPD;
Origin: <DEUTSCH>QED.NLS;4, 7-APR-73 14:18 LPD ;

MBY 9-APR-73 17:56 15646

Instruction requests for RFC's

to jeannea,info maryling ..sorry gals,,but it has been a while since itook the nls course. jeanne, I'll back this up with a sendmessage to you ....i have two rather long items (they are long only because i can't always read the boss's writing)...one is a general comment he wants sent to all PI's and all TL's on the NET regarding service, the other is too .... at least all PI's regarding RML's functional responsibilities in the NETWORK. Question:How do I best get this to you as an input for an RFC?...excuse...two RFC's? please reply via SNDMSG to "YOUNG at ISI" as that is the place I most often check my mail (daily). 1

15646 Distribution
North, Jeanne B. , Auerbach, Marilyn F. , Young, Michael B. ,

MBY 9-APR-73 17:56 15646

Instruction requests for RFC's

(J15646) 9-APR-73 17:56; Title: Author(s): Young, Michael B. /MBY;
Distribution: /JBN MFA MBY; Sub-Collections: NIC; Clerk: MBY;

If one of my professors will accept an assignment late, I will be in Menlo Park for a full day on Monday, April 16th. See you then. 1

(J15647) 9-APR-73 19:18; Author(s): Meyer, N. Dean /NDM;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: NDM;

NJN 9-APR-73 09:11 15648

TNLS Card request

Please send BBN-NET one dozen (12) copies of the TNLS Quick Reference Card c/o me:

Nancy J. Neigus
Bolt, Beranek and Newman
50 Moulton St.
Cambridge, Mass. 02138

Thanks very much, Nancy 1

NJN 9-APR-73 09:11 15648

INLS Card request

(J15648) 9-APR-73 09:11; Title: Author(s): Neigus, Nancy J. /NJN;
Distribution: /MLK; Sub-Collections: NIC; Clerk: NJN;

MINUTES

ARPA SUR Steering Committee Meeting

March 2-3, 1973

P. Miller

This set of experimental minutes summarizes the major topics discussed at the SUR Steering Committee meeting in Santa Barbara, March 2-3, 1973.

I. Communications with other Groups

Several alternate modes of interacting with other groups (funding groups, and non-ARPA research goups, etc.) were discussed. These alternatives range from dissemination of information to others, to finding out more about others, and to inviting others to participate in ARPA meetings.

Specific possibilities discussed were

1. that IBM might host a meeting. IBM is willing, but not in the immediate future.

2. IBM could contribute to the SURNOTES.

3. that a morning or afternoon session of the Fall 1973 ASA meeting (Mid November in Los Angeles) might be a possible forum for presenting work done in the ARPA SUR effort

A more general question was whether the ARPA meetings are

cast in a form that allows outside guests to be invited. The invitation of outside guests might make it difficult to arrange meetings that focus in on one area (ie. acoustical, segmental, linguistic) 'out of context' of the ARPA effort as a whole

II. Format of Meetings

It was felt that the Santa Barbara meeting had been very intensive, and that the 'density of material' posed a problem. Furthermore, the very intensity of the meetings seemed to make more informal contact and discussion difficult. A number of specific suggestions were made.

1. That more time be set aside for discussion, either formal or informal.

2. That a second lounge room be available where people could talk in more detail about specific interests, possibily even while papers were being presented in the main conference room. This would encourage informal interchange without allowing it to disrupt the formal presentations.

3. Abstracts of talks might be made available in advance.

4. Summaries of talks might be written up as SURNOTES.

A related question raised was whether the more technical meetings should always be combined with Steering Committee meetings.

III. Status of Projects at Major Sites

A number of issues were discussed related to the current

status of systems at the major sites. First was the question of whether phase 2 of the projects is envisioned as arising from evolution of the phase 1 system, or through a complete rebuilding of a system from scratch. Since phase 1 is far from complete (except at CMU), this is perhaps a dificult question to answer at this time. Currently, most sites seemed to envision an evolutionary development.

The present expectations as to complete system operation at the various sites is outlined in the following timetable.

	date	sentences	speakers	accuracy
BBN	April 73	1	1	?
SDC	May 73	100	2	?
SRI	July 73	10	2	?
CMU	done	43	2	80 percent
LL	Nov 73	1	2	?

The status of the various front ends was also discussed.

IV. Coordination of Acoustical and Phonological Experiments

Dennis Klatt raised the question of how the development of

accoustical and phonological experiments at different sites might be coordinated and made more systematic.

This might involve redoing classic experiments, and performing a large number of acoustical experiments to investigate phonological rules and coarticulation effects, etc. in a systematic fashion, and making the results available to the ARPA SUR effort as a whole.

It was agreed the Lincoln probably had the number crunching power to do these experiments, and that BBN might also get involved, but that for such a project to be sucessful it would require the supervision of someone with a clear, concrete idea of what he/she wanted to do. The most natural candidate for that position is currently engrossed in myna bird research.

V. Smaller Contractors

The role of the smaller contractors was discussed. A PDP-11 working group has been formed consisting of SCRL, Haskins, and Michigan to coordinate development of PDP-11 systems to interact with the NET. Univac is interested in expanding their use of other facilities, interacting with parsers, etc.

VI. Thoughts about the Next SUR Meeting

Two possibilities were discussed for the next SUR meeting.

1. A 2 day session on segmentation and labelling. It was decided that this could best be done as a fairly small group, organized separately by Raj Reddy.

2. A high level (syntax and semantics) tutorial, as preparation for a later high level presentation session. The main problem in organizing such a tutorial is that of matching the level of the material with the anticipated audience. It was suggested that minimal and/or maximal reading lists might help give potential students and instructors an idea of what to expect. 74

75

It was decided to defer the concrete decision as to when and what the next meeting might be. Early June was suggested as a possible time for a Steering Committee meeting. 76

77

PS. New PhD Thesis Available 78

A Locally-Organized Parser for Spoken Input, Perry Miller, 20B-208, MIT. 79

15649 Distribution

Wolf, J. J. , Barnett, Jeff A. , Crocker, Steve D. , Forgie, James W. , Green, C. Cordell , Klatt, Dennis H. , Licklider, J. C. R. , Neuberg, Edward P. , Newell, Allen , Reddy, D. Raj , Walker, Don E. , Woods, W. A. ,

SUR Steering Committee Minutes

(J15649) 9-APR-73 11:49; Title: Author(s): Miller, Perry L. /PLM;
Distribution: /SURSC; Sub-Collections: NIC SURSC; Clerk: PLM;
Origin: <GUEST>SUR.NLS;16, 9-APR-73 11:36 PLM ;

RFB 9-APR-73 16:24 15650

need info

i am looking for mitre documents for reference. the first is ...mtt-357..sept 71...--survey of computer networks--by j.s.peterson.....the second is..economic point of view of designer and operator....from the proceedings of interdisciplinary conference on multiple access computer networks..---by mitre and the u of texas----author..m..davis---1970.....if you can obtain these please let me know...i can be reached at sri-arc by rfb...or at usc-isi by bryan. thanks, roland.....we will be sending some news for the arpanews release soon.... 1

15650 Distribution
Poh, Susan S. , Bryan, Roland F. ,

RFB 9-APR-73 16:24 15650

need info

(J15650) 9-APR-73 16:24; Title: Author(s): Bryan, Roland F. /RFB; Distribution: /SSP RFB; Sub-Collections: NIC; Clerk: RFB;

Journal Future Plans Outline

JOURNAL SYSTEM OVERVIEW (existing and proposed for (*)multi-site system, model 2) 1

INTERNAL functions 1a

RECORDING function 1a1

Number assignment 1a1a

* Coordinated with other Journal systems on net 1a1a1

Cataloging 1a1b

The obvious: number, title, author, distribution, storage location 1a1b1

Subcollection specifications 1a1b2

"Updates" and "Modifies" links 1a1b3

* Systems utilizing these two features plus a "Comment" system of some sort 1a1b3a

Storage 1a1c

in local files 1a1c1

* at remote network sites under control of the local journal system 1a1c2

* Request recording at another Journal system 1a1d

DISTRIBUTION function 1a2

Citation and message distribution to individuals within the given computer system. 1a2a

Printing and delivering hard copy 1a2b

* Send distribution requests to other systems 1a2c

* Allow local distribution via message (txt) files 1a2d

* Distribution of non-recorded items 1a2e

RETRIEVAL function 1a3

Automatic catalog searches during file loading 1a3a

Index creation from catalogs 1a3b

author, titleword, etc. 1a3b1

* Interrogate other Journal systems for retrieval information 1a3c

* Archive retrieval requests 1a3d

* Handle network requests for 1a3e

* document location 1a3e1

* document retrieval 1a3e2

USER ACTUATED INTERFACES 1b

Submission request (interfaces to recording, distribution, and number functions) 1b1

Interactive 1b1a

Command Form (template) 1b1b

Secondary Distribution request 1b2

Number system 1b3

* Non-NLS (exec) submission interface 1b4

* Non-NLS (exec) distribution printout 1b5

* REMOTE (NETWORK) INPUT INTERFACES 1c

* Distribution requests from other systems 1c1

* Number requests from other systems 1c2

* Recording requests 1c3

* Retrieval requests 1c4

* Ident system requests 1c5

*ident validity 1c5a

*last name query 1c5b

Journal Future Plans Outline

INTERFACE TO IDENT SYSTEM 1d

The Journal is one of the heaviest users of the Ident system 1d1

Check validity of idents at the user's submission interface 1d1a

Determination of Subcollections according to author and distribution given 1d1b

Expansion of group idents for distribution 1d1c

Determination of delivery address, 1d1d

on-line 1d1d1

hardcopy 1d1d2

* network site and user 1d1d3

* Network interface to NIC ident system (fast) (always alive) 1d2

* Ident validity check 1d2a

* Ident list expansions 1d2b

* Modification/addition commands (queueing?) 1d2c

AREAS REQUIRING MAJOR EFFORT: 2

MULTI-SITE JOURNAL(SNDMSG-NETWORK MAIL-FTP) 2a

Possible general models: 2a1

1: Single Central Journal (at NIC) 2a1a

All (numbered, recorded) items are processed, cataloged, and distributed by NIC Journal System. 2a1a1

Number systems may be distributed so numbers may be assigned without accessing NIC. 2a1a2

2: Central Master Cataloging system at NIC with processing journal systems at NIC and other places. 2a1b

A processing journal system may 2a1b1

receive submission requests from net or local users 2a1b1a

essentially like submission now 2a1b1a1

it may be viewed as a combination of recording and distribution requests as described below 2a1b1a2

receive distribution requests from the net (or local user?). 2a1b1b

A distribution request contains a distribution list (normally of people on that system) and a document address (normally in the requestor's system). 2a1b1b1

The receiving system then has the option of copying the document over the net before distributing citations within the system, or leaving the document with the sender and letting the citatons refer back over the net. 2a1b1b2

send distribution requests to other journals 2a1b1c

In the process of doing online distribution for a given document, the system would collect all the idents going to a particular journal system into a single distribution request. 2a1b1c1

send recording requests (catalog and store) to NIC system (and maybe to any remote system?) 2a1b1d

it is assumed that most numbered material will be recorded--a remote system would access NIC for anything it couldn't find on its own. 2a1b1d1

The Central Master Cataloging system at NIC would be responsible for storing documents (not nescessarily at NIC) and retrieving documents (including archive retrieval requests). 2a1b2

General Areas to consider further: 2a2

the distinction between mail and journal delivery? 2a2a

NLS links pointing across the net 2a2b

exec journal system 2a2c

non-recorded journal 2a2d

net (exec) ident system 2a2e

user@host recognition by processing and cataloging systems 2a2f

retrieval requests and responses going over the net 2a2g

PRIVACY-SECRECY 2b

unrecorded (unnumbered) case gives some privacy 2b1

recorded case possibilities 2b2

1) private items not cataloged 2b2a

if someone knows the number, he can get the item. 2b2a1

2) use tenex locks 2b2b

3) implement NLS locks 2b2c

by subcollections 2b2c1

by author and distribution lists 2b2c2

allow sec. dist. by author? 2b2c2a

4) maintain private catalogs 2b2d

for individuals 2b2d1

for groups 2b2d2

5) encripting 2b2e

observations: 2b3

protection from system hackers and from motivated reasonably intelligent programmers is virtually out of the question. 2b3a

MISCELLANEOUS CHANGES AND ADDITIONS: (in order of decreasing priority?) 3

Redesigned citation format 3a

Journal Future Plans Outline

"Carbon Copy" distinction in distribution list. 3b

Expand "status" options 3c

Rework journal's formatting directives to be kinder to the user's formatting directives 3d

Acknowledge submission complete with ident, date, time, or some other handle on the submitted item. 3e

when a command form is used, put this acknowledgement in the command form (if requested?) 3e1

"Speedy delivery" additions 3f

Fix DNLS submission hacks 3g

no RFC numbers 3g1

won't take "-" in some idents 3g2

?many more? 3g3

Allow a doc. number as part of distribution list (means distribution list of that doc.) 3h

Secondary Subcollection command 3i

Update initial files periodically (every week or two) 3j

Secondary distribution by file through TEJOURNAL 3k

allow sec. dist. on items that haven't had numbers assigned. 3k1

Change so title and distribution associated with a preassigned RFC# doesn't override title and distribution given at submission time. 3l

When submitted item is RFC, delete "nsag", "nag", "nlg" from the hardcopy distribution if they occur. (this distribution is currently done by xeroxing) 3m

REFERENCE LINKS 4

ARC Responses to request for suggestions 4a

RWW 5-APR-73 09:57 (15514,) 4a1

RWW 5-APR-73 09:37 (15513,) 4a2

DVN 5-APR-73 17:31 (15505,) 4a3

DIA 5-APR-73 08:52 (15502,) 4a4

DCW 4-APR-73 10:58 (15476,) 4a5

MDK 4-APR-73 17:52 (15494,) 4a6

JAKE 4-APR-73 11:39 (15487,) 4a7

DCW 4-APR-73 10:58 (15476,) 4a8

WLB 3-APR-73 13:50 (15469,) 4a9

JBN 2-APR-73 12:11 (15440,) 4a10

HGL 2-APR-73 10:29 (15438,) 4a11

Network Mail 4b

Meeting notes MDK (LJOURNAL,14798,1:w) 4b1

Meeting notes JEW 4b2

FTP Mail subcommands JEW (LJOURNAL,14948,1:w) 4b3

File format for Journal-FTP communication JEW
(IJOURNAL,14262,1:w) 4b4

Exec level Journal Access CHI to NJN (IJOURNAL,14308,1:w) 4b5

Journal Future Plans Outline

(J15652) 10-APR-73 15:52; Title: Author(s): Hopper, J. D. /JDH;
Distribution: /sri-arc ; Sub-Collections: SRI-ARC; Clerk: JDH;
Origin: <HOPPER>JTASKS.NLS;7, 10-APR-73 15:41 JDH ;

Current Status of Some Catalog Work

This note is to inform JCN, JBN, MDK, RWW, DCE and any others interested of some of the current research and other work being done in connection with the ARC/NIC cataloging venture and to point out some interesting features: 1

Group Notes and Indices 2

In order that the Network users may be able to know what Group Notes have been issued, there are always available to them in Directory <NIC> the following up-to-date Indices of these Notes: 2a

(NIC,ASSINDEX,1) 2a1

(NIC,CBIINDEX,1) 2a2

(NIC,INWGINDEX,1) 2a3

(NIC,NMGINDEX,1) 2a4

(NIC,PRGINDEX,1) 2a5

(NIC,RFCINDEX,1) 2a6

(NIC,SURINDEX,1) 2a7

(NIC,TIPUGINDEX,1) 2a8

To give a brief illustration of further processing these Group Notes receive when coded into the NIC Catalog, a current and uncompleted (and as yet unproofread) file may be seen in (JERNIGAN,CIT-NICNOTESAPR,1). 2b

Catalog Thesaurus and Some Related Work 3

Recently, the first steps toward a systemized analysis of coding terms used in our cataloging processes is underway. From this analysis there will result: (1) an organized thesaurus, (2) more efficient online search capabilities, and (3) some intriguing by-products of our analysis that appear to be feasible for some added services NIC might offer the ARPANET sites in a foreseeable future (time uncommitted): 3a

BAH came up with 3 very clever little REL files/programs that run on files such as in (JERNIGAN,CIT-NICNOTESAPR,1) above, extract the contents of the *y3 fields (this is the keywords assigned) and deposit them in new files, each keyword broken down into a separate statement and with the

XDOC number from which it came assigned to it as a statement name. For first rough look at what we have done (before sorting) see (NIC-WORK,A-HOLDY3,1). 3a1

JDH (with NDM) is doing two small sort programs to use on those files, one to sort on the first word, ignoring the statement name, and the other to sort on the last word, also ignoring the statement name. This will enable us to examine permutations of keywords used and correlate terms, such as: system design; systems design; designing systems; etc. From the results of these programs and this work will come a more logical thesaurus and a more efficient online searching capability. 3a2

HGL has promised to look at the several small L10 programs so far written and to combine them into a more general program that will allow us to specify the field chosen to search and extract from. This has all sorts of intriguing capabilities, such as: 3a3

Capability of easily furnishing ARPANET sites with bibliographies of their documents we have cataloged into our system. 3a3a

Capabilities for listing such things as: 3a3b

Bibliographies by report number. 3a3b1

Lists of people to whom documents or books are checked out on a permanent loan basis (such as some of the hardware manuals). 3a3b2

Listings by Editor, by publisher, by date, by conference (of which the publication is a proceedings), of sponsoring agencies and the contract numbers, etc. 3a3b3

These small L10 programs, such as the REL files, are less than one disc page each, and run in only a few moments of time...nothing like long, interlocked and complicated formatting files. I can foresee all sorts of intriguing possibilities for these little programs, not necessarily confined to cataloging as we know it. See how handy these L10 capabilities are? 3a4

NIC Catalog 4

The March 1973 NIC Catalog has been almost completely run and

should be out soon. Procedures are smoothing out and things are looking better. 4a

MEJ 10-APR-73 18:25 15653

Current Status of Some Catalog Work

(J15653) 10-APR-73 18:25; Title: Author(s): Jernigan, Mil E. /MEJ;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: MEJ;
Origin: <JERNIGAN>CURRENTSTATUS.NLS;1, 10-APR-73 18:21 MEJ ;

DCE 10-APR-73 07:12 15654

Asking Dean to have program MAKEREF check TJCAT

Dean: Apparently the program, MAKEREF, doesn't check TJCAT, because it produces "****Document not in catalog****" for items that are in TJCAT but not yet in JCAT. This means that the program doesn't reach the more recent Journal entries. Please try to fix the problem if you can. Thanks, Doug. 1

DCE 10-APR-73 07:12 15654

Asking Dean to have program MAKEREF check TJCAT

(J15654) 10-APR-73 07:12; Title: Author(s): Engelbart, Douglas C. /DCE; Distribution: /NDM JCN JDH JBN MDK DVN MFA CHI; Sub-Collections: SRI-ARC; Clerk: DCE;

Comments on New TELNET Protocol and Two Proposed Options

Assorted thoughts on TELNET and its document(s): 1

Please have Davidson's echoing option included with initial option list. I know this has been suggested by others, but I wanted to cast another ballot. 1a

Page 4 of #15372, last paragraph: 1b

It does not seem sufficiently explicit to me to state 'until something changes' and I would like to sugesst: 1b1

To prevent such looping, a process is prohibited from re-issuing a request until at least one data byte has been transmitted. A process is only responsible for keeping track of the requests IT has issued and is explicitly allowed to issue requests rejected for other, previous processes. 1b2

Also, please comment on/include the following (Jon has seen them): 2

TELNET Extended Options List Option

3

1. Command Name and code: 3a

EXTENDED-OPTIONS-LIST (abbreviated: EXOPL) 255 3a1

2. Command Meanings 3b

IAC DO EXTENDED-OPTIONS-LIST 3b1

The sender of this command REQUESTS that the receiver of this command be prepared to nogotiate a TELNET option which is on the EXTENDED OPTIONS LIST. The specific option request will be made during SUB-negotiations. 3b1a

IAC WILL EXTENDED-OPTIONS-LIST 3b2

The receiver of this command agrees to discuss considering an option on the Extended Options List. 3b2a

IAC WON'T EXTENDED-OPTIONS-LIST 3b3

The sender of this command does REFUSES to discuss any of the options on the Extended Options List. 3b3a

IAC DON'T EXTENDED-OPTIONS-LIST 3b4

The sender of this command DEMANDS that the receiver of this command not discuss options on the Extended Options List. 3b4a

3. Default 3c

WON'T EXTENDED-OPTIONS-LIST 3c1

Options on the Extended Options List are not discussed or used; and any associated SUB -commands are not permitted until the DO/WILL EXTENDED-OPTIONS-LIST commands have been positively acknowledged. 3c1a

4. Motivation for the option 3d

Eventually, a 257th TELNET option will be needed and there is currently no way to support it. The proposed option will extend the option list for another 256 options in a manner which is easy to implement. The option is proposed now, rather than later

(probably much later), in order to reserve the option number (255). 3d1

5. An abstract description of the option 3e

The command has five SUB-commands: WILL, DO, WON'T, DON'T and SUB. They have exactly the same meanings as the TELNET commands 251 - 254 and 247; and they are used in exactly the same way. For consistency, these five sub-commands will have the same codes as they do at the TELNET-level. 3e1

Therefore, the format for requesting a specific option, once everyone has agreed to talk about options on the Extended Option List is: 3e2

IAC SUB EXOPL DO/WILL/DON'T/WON'T option 3e2a

And once both sides have agreed to discuss the specific option: 3e3

IAC SUB EXOPL SUB Option-Code subcommands-for-this-option 3e3a

STATUS Option

4

1. Command name and code: 4a

   STAT # 4a1

2. Command meanings: 4b

   IAC DO STAT 4b1

   The sender of this command REQUESTS the receiver to state the receiver's view of the current status of options. 4b1a

   IAC WILL STAT 4b2

   The sender agrees to use STAT SUB-commands to transmit his current option settings. 4b2a

   IAC DON'T STAT 4b3

   The sender of this command PROHIBITS the receiver's transmission of any Status-of-Options information. 4b3a

   IAC WON'T STAT 4b4

   The sender of the command REFUSES to discuss the current status of options. 4b4a

3. Default: 4c

   WON'T STAT 4c1

   No information will be exchanged regarding the status of options; and any associated SUB-commands are not permitted until the DO/WILL STAT commands have been positively acknowledged. 4c1a

4. Motivation for the option: 4d

   There currently exists no mechanism for a user/process to verify the status of options (e.g., echoing), as viewed by the person/process on the other end of the TELNET connection. Simply re-negotiating options could lead to the nonterminating request loop problem discussed in (NIC,15372,). 4d1

5. A description of this option: 4e

The command has six SUB-commands: WILL, DO, WON'T, DON'T, SUB, and DEFLT. The first five commands have similar meanings (and the same codes: 251 - 254, 247) as the TELNET commands. DEFLT has the code 248. 4e1

The sender uses the commands as flag indicators and follows the commands with option codes and parameters, using the same format and syntax as is used to negotiate the options initially. The receiver (the side which requested the STAT) does not, however, respond to any of the STAT SUB commands, but may use the information to renegotiate specific options later. 4e2

The DEFLT is provided as a convenience and has two bytes as parameters. The command means "I am using the default settings for these options" where the two parameter bytes defines a set of options (FROM byte1 TO byte2). If only one option is to be specified, Byte1 and Byte2 have the same value. 4e3

Therefore: 4e4

IAC SUB STAT DEFLT 0 0 4e4a

IAC SUB STAT WILL ECHO 4e4b

IAC SUB STAT DEFLT 2 255 4e4c

Indicates that the sender is echoing, but doing the defalut actions for any other options. 4e5

15655 Distribution
McKenzie, Alex A. ,

DHC 10-APR-73 15:00 15655

Comments on New TELNET Protocol and Two Proposed Options

(J15655) 10-APR-73 15:00; Title: Author(s): Crocker, David H. /DHC;
Distribution: /AAM; Sub-Collections: NIC; Clerk: DHC;

DHC 10-APR-73 15:44 15656

Arpanew suggestions

Jeanne, I was just looking at a printout of the ArpaNews and wanted to make a couple of very minor suggestion, relating to use of directives:

1. Turn statement names off. Names don't provide useful information for the hardcopy reader.

2. Use more Ignore directives , to eliminate comments relating to use of the query system.

With that in mind, it would be nice if a viewspec could exist to skip directives, so that the NLS viewer would not see these . 1

DHC 10-APR-73 15:44 15656

Arpanew suggestions

(J15656) 10-APR-73 15:44; Title: Author(s): Crocker, David H. /DHC;
Distribution: /JBN; Sub-Collections: NIC; Clerk: DHC;

DHC 10-APR-73 15:47 15657

Another Viewspec?

In order to make viewing a file, thru NLS (or the Query system) prettier , it would be nice if there was a viewspec to cause Print commands to not print directives imbedded in text. In other words, only pure text would appear on the user's console. 1

DHC 10-APR-73 15:47 15657

Another Viewspec?

(J15657) 10-APR-73 15:47; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

A GLITCH

A S(UBMIT)? COMMAND SHOULD NOT LEAVE THE JOURNAL SUBSYSTEM. 1

A GLITCH

(J15658) 10-APR-73 11:22; Title: Author(s): Stern, Dale H. /DHS;
Distribution: /BUGS; Sub-Collections: NIC BUGS; Clerk: DHS;

DHS 10-APR-73 11:26 15659

REQUEST FOR CARDS

A CARD ENTITLED TNLS QUICK REFERENCE APPEARED ON MY DESK ONE DAY.
CAN I GET A FEW MORE COPIES? ALSO, CAN YOU EXPLAIN WHY I NEVER
GET ON-LINE AUTHOR'S COPIES OF THE JOURNAL MESSAGES I SEND? 1

DHS 10-APR-73 11:26 15659

REQUEST FOR CARDS

(J15659) 10-APR-73 11:26; Title: Author(s): Stern, Dale H. /DHS;
Distribution: /JBN; Sub-Collections: NIC; Clerk: DHS;

DLS 10-APR-73 14:01 15660

Calculator, forms gen, terminals, etc

This is a response to (,15611,) and (,15437,)--sorry I haven't quicker in getting back to you. 1

Calclator vs Forms generator-- 2

I'm not sure what is involved in programming the ability to call BASIC or what additional capability this will provide an user. I do know however, that we have several semiprogrammers, mostly in the other section, who use BASIC frequently in their daily work. If they could use BASIC from NLS I'm sure this would be an added incentive for them to try NLS when we start training them (when the utility comes up). 2a

The forms printer buy is just now going out for bid and probably won't be delivered until Aug at the earliest. This means we couldn't really do anything with the forms generator package until then anyway. 2b

Personally, I'd like to see the forms generator package get under way asap, since I know this would be of use to the organization as a whole, and although it is a relatively small item in the larger Knowledge Workshop concept, it is something with which outsiders, and to some extent our own management, can readily identify. 2c

I guess what I'm saying in a round about way is that I have no objections to continuing on with the BASIC interface programming as long as its a 3-4 month effort or less. If it runs longer than that, then we run the risk of not being able to finish the forms generator effort under the existing contract; which runs through SEP this year. 2d

A question--Is there any estimate when we can get to use the DNLS version of the calculator? The reason I ask is that we are just now starting to submit requests for funds for FY-74 and in a month or so we will be asked to start the budgeting cycle for FY-75. Both of these exercises involve a lot of calculations, which are repeated and changed with every review by higher management. 2e

Mar 29 CDB ad for post editing system 3

I suspect that this comes from the Intelligence Division. They are working with the Foreign Technology Division of AFSC at Wright-Patterson AFB, in Dayton Ohio. One of the functions of FTD is to translate Russian documents to English. They have over the years developed a fairly sophisticated computer program to do this. However, the output still needs to be

cleaned up, words rearranged, grammar corrected, and literal translations of words not in the dictionary have to be correctly spelled. 3a

Some of the documents are classified, and hence they need an in-house system that they can control from a security standpoint. 3b

I have talked with the RADC engineer several times about NLS and he has had an IDENT in the system. His name is Dave Luther. I don't think he is a steady user of the NIC, but we do provide him with updated IMLAC programs when he asks. 3c

I have asked DAVE to send me a copy of the proposals he gets in response to this effort, to see if there is anything in them we might use for a less expensive DNLS terminal. 3d

Sylvia Mayer 4

ESD/MCI Stop 36 4a

Electronic Systems Division 4b

L. G. Hanscom Field 4c

Bedford Mass. 01730 4d

Tele: 617-478-5391 4e

System Load/RADC users 5

I have spread the word here at RADC about the max number of users etc. It seems to me that they have been generally observing the max number of users and the 12:00 to 13:00 no-use period. If things get out of hand again or if I'm mistaken don't hesitate to call. Most people here are understanding when the facts are explained to them, since they're living within computer schedules everyday. 5a

Inexpensive DNLS terminals 6

We were visited by Beehive terminals yesterday, and witnessed a demo of their latest release--Superbee. It has a lot of interesting built in editing functions, but more importantly, it looks like it could be modified fairly easily to work as a DNLS terminal. Will give you more on this in the near future. 6a

7

DLS 10-APR-73 14:01 15660

Calculator, forms gen, terminals, etc

(J15660) 10-APR-73 14:01; Title: Author(s): Stone, Duane L. /DLS;
Distribution: /dvn rww jcn tfl ; Sub-Collections: RADC; Clerk: DLS;
Origin: <STONE>RES.NLS;1, 10-APR-73 13:58 DLS ;

DSK 10-APR-73 09:15 15661

Move Boundry IMLAC bug

Thank you for reporting this. It will be fixed in the next running system (soon, I hope). Sorry for the inconvenience. 1

DSK 10-APR-73 09:15 15661

Move Boundry IMLAC bug

(J15661) 10-APR-73 09:15; Title: Author(s): Kaye, Diane S. /DSK;
Distribution: /dls bugs ; Sub-Collections: SRI-ARC BUGS; Clerk: DSK;

DVN 10-APR-73 09:05 15662

Trouble with Backspacing in the journal

In recent weeks when either in regular journal submission or in secondary distributionn when I have backspace letter or word, it gives me an error message, often "fst entry nonexistant" 1

DVN 10-APR-73 09:05 15662

Trouble with Backspacing in the journal

(J15662) 10-APR-73 09:05; Title: Author(s): Van Nouhuys, Dirk H. /DVN; Distribution: /JDH; Sub-Collections: SRI-ARC; Clerk: DVN;

HGL 10-APR-73 14:50 15663

Re: Weeks in Review

I don't want it. 1

HGL 10-APR-73 14:50 15663

Re: Weeks in Review

(J15663) 10-APR-73 14:50; Title: Author(s): Lehtman, Harvey G. /HGL; Distribution: /bah ; Sub-Collections: SRI-ARC; Clerk: HGL;

HGL 10-APR-73 15:07 15664

Response to DHC's Grrrrr (15631,): Prrrrrrr

The file (nic, locator,) was modified on 9-April-73. The links should be correct now. (We moved most of the user guides-- at least those of interest to NIC users-- to a directory called <USERGUIDES> and renamed them so that a DIR command at the exec should tell you immediately the correct name for a useful user guide, though locator is still the preferred means for getting there. Hopefully in the future you will not be caught in the middle of an improvement. 1

15664 Distribution
Crocker, David H. , Kaye, Diane S. , Lehtman, Harvey G. , Irby, Charles H. ,

HGL 10-APR-73 15:07 15664

Response to DHC's Grrrrr (15631,): Prrrrrrr

(J15664) 10-APR-73 15:07; Title: Author(s): Lehtman, Harvey G. /HGL; Distribution: /dhc bugs ; Sub-Collections: SRI-ARC BUGS; Clerk: HGL;

JBP 10-APR-73 10:56 15665

hello

hello yourself, how was paris ? thesis may finally be progressing some, do you have an account at isi ? i am "postel" at isi. that is where i am doing most of my on line work these days. 1

15665 Distribution
Cerf, Dr. Vinton G. ,

JBP 10-APR-73 10:56 15665

hello

(J15665) 10-APR-73 10:56; Title: Author(s): Postel, Jonathan B. /JBP; Distribution: /VGC; Sub-Collections: NIC; Clerk: JBP;

JBP 10-APR-73 10:58 15666

why on earth did you submit message as ARCG = Guest O. ARC ? 1

(J15666) 10-APR-73 10:58; Author(s): Postel, Jonathan B. /JBP;
Distribution: /VGC; Sub-Collections: NIC; Clerk: JBP;

i think the most approiate thing to do about processes starting up other processes over the network is to try an experiment with the cooperation of the systems staff between 3 or 4 sites wirth different hardware and operating systems and then to report your experience. i (if i were you) proceed by contacting "the guy" at one or two othe places [the guy is probably the technical liason] and setting up an experiment, try sitting down and working out the necessary procedures to make it go, it may take a lot of canned script to get the two processes talking but that is what we want to find out about. -- jon. 1

15667 Distribution
Day, John D. ,

(J15667) 10-APR-73 11:13; Author(s): Postel, Jonathan B. /JBP;
Distribution: /DAY; Sub-Collections: NIC; Clerk: JBP;

what should be done about the proposed graphics meeting at illinois ?

1

15668 Distribution
McKenzie, Alex A. ,

(J15668) 10-APR-73 14:59; Author(s): Postel, Jonathan B. /JBP;
Distribution: /AAM; Sub-Collections: NIC; Clerk: JBP;

Network Journal Submission and Delivery

5-APR-73

James E. White (JEW)
SRI-ARC
5 April 73

User-Level Description of a Proposed First Implementation

This memo describes modifications to SRI-ARC software which are being made to make the NIC Journal more readily accessible to Network users. The aim is to minimize the amount of familiarity with SRI-ARC's system (specifically NLS) required of the user before he can effectively exploit this basic NIC service. The user shouldn't be FORCED to become adept at the use of NLS before he can send and receive Journal mail. 1

The discussion that follows describes -- at the user level -- a first-cut implementation of Network Journal submission and delivery which will be available for use in about two months. A more flexible and slightly cleaner user interface will be fashioned when the File Transfer Protocol (FTP), upon which both implementations will rely, is revised to deal more comprehensibly with the issues of mail delivery, forwarding, and recording (see -- 15146,1). 2

This initial implementation requires no modifications to software anywhere in the Net except at SRI-ARC. It supports the most powerful feature of the Journal -- the use of group, as well as individual idents -- but disallows many of the features -- such as preassigned numbers, comments, secondary distribution, etc. -- available to the user working in NLS. 3

The new FTP mail protocol will provide a number of features which the second-cut implementation of Journal submission and delivery will exploit. Among them are: 4

(1) Requests to record (journalize) mail are explicit 4a

(2) Acknowledgment for forwarded mail can be explicitly requested and parameters specified to control it 4b

(3) The fact of multiple addressees is made explicit, and each one is separately acknowledged by the server 4c

(4) Information about the size of the piece of mail can be presented to the server, and he can decide whether to post the text of the mail or a citation to it in the user's mailbox 4d

Implementation of the user features described here requires: 5

(1) Modification of SRI-ARC's FTP server process to distinguish between normal (unrecorded) and Journal (recorded and forwarded) submissions, to extract author and addressee information from the 'user name' field in the FTP mail command, and to store control information and article text in a sequential file for processing by the Journal. 5a

(2) Addition of an entry to NLS which SRI-ARC's FTP server process can employ to verify idents. 5b

(3) Modification of the Journal to cause it to process sequential files created by the FTP server process during the submission process. 5c

(4) Writing of a background process to deliver Journal mail to Network addressees via FTP and take care of acknowledgment, retries for disconnected hosts, etc. 5d

(5) Modification of the Journal to make control information and article text for Journal items with Network addressees available to the background delivery process. 5e

For more information about the implementation of the user features described here, the reader is referred to (14948,1) for a first-cut at the expanded FTP Mail Protocol, and to (14262,1) for a description of the internal interface between the FTP software and the Journal. 6

This discussion treats two major areas: 7

(1) Journal Submission -- providing a mechanism by which the user can create and submit a Journal article in the comfort (and familiarity) of his own host. 7a

(2) Journal Delivery -- providing a mechanism by which the NIC can deliver Journal mail to a user at his home host through the Net. 7b

Journal Submission from the Net 8

SRI-ARC's FTP server process will accept Journal submission requests from hosts in the Net. Journal items submitted in this way will be indistinguishable -- once they have been processed by the Journal -- from those submitted from a terminal by a user in NLS. SRI-ARC will also allow itself to be used simply as a forwarding agent: if the user chooses, he may request that a piece of mail be delivered to a list of addressees, specified by idents, without that piece of mail being assigned a NIC number and without it's being cataloged. 8a

The remote user will initiate the submission process using the subsystem (front-end) provided by his host. For TENEX users, this front-end is SNDMSG. The user will send his Journal article as mail to the NIC, addressing it to a fictitious user whose name is of the form: 8b

author/ident-1 ident-2 ... 8b1

'Author' is the ident of the user submitting the article, and 'ident-i' the idents of its intended recipients. SRI-ARC will verify the idents. If it finds them correct, it will accept the mail, and reject them otherwise. The current FTP mail protocol doesn't explicitly allow multiple addressees, and so in the initial implementation of Network Journal submission, an invalid ident will force the whole list of addressees to be rejected. An ident, as usual, may designate either a group or an individual. 8c

The remote user prepares the text of his Journal article in his host using whatever tools he has available to him. He may wish to generate long articles with his text editor (TECO, if he's a TENEX user). For short messages, he may be content with the simple-minded editing features (such as backspace character and line delete) provided by his submission subsystem. 8d

For TENEX users, the submission process, for short messages, will follow a scenario like the one below. In this example, the author is JEW and the recipient DHC. System responses are bracketed; everything else is user input. Special characters such as carriage return are enclosed in angle brackets: 8e

```
[@] sndmsg <CR>
[Type ? for help]
[Users:] jew/dhc@nic <CR>
[Subject:] SMFS Runs on TENEX 1.31 at the NIC <CR>
[Message: (? for help):] Dave-- The NIC came up on
TENEX 1.31 on 1-APR.  I tried SMFS here on the new
monitor and it works fine.  I don't understand why I
had problems running your copy of the code at
BBN-TENEX.  Are you still unable to reference the same
archived file from two different TENEXs?  --Jim <↑Z>
[jew/dhc at NIC -- OK]
[@]
```

8e1

For longer articles, the submission process will look like the following. Here, the the recipients are SRI-ARC (a group), and MCK and RMS:

8f

```
[@] sndmsg <CR>
[Type ? for help]
[Users:] jew/sri-arc mck rms@nic <CR>
[Subject:] Farming Batch Work out to UCSB -- A Scenario
<CR>
[Message: (? for help):] <↑B> [(Insert file:  ] rje.txt
<CR> [...EOF)] <↑Z>
[jew/dhc at NIC -- OK]
[@]
```

8f1

The Journal normally acknowledges delivery of a Journal article by inserting a statement in the AUTHOR branch of the author's initial file. Users whose mail is delivered to them through the Net (see the section on Journal delivery) will find articles they author acknowledged through the Net -- as mail, to the same host and mailbox (recorded in the NIC's Ident file) at which they normally receive mail addressed to them.

8g

Recorded in the NIC's Ident file will be parameters affecting the nature of the acknowledgment the user receives. The user may elect to always receive acknowledgment, or to receive it only if the delivery attempt fails for one or more addressees, or to receive a status report periodically during the delivery process (which might take several days since hosts are not always up and accessible from the Net).

8h

Journal Delivery through the Net 9

Each user formally known to the NIC can currently select for himself individually the manner(s) in which he is to receive delivery of Journal mail addressed to him. 9a

The two existing delivery methods from which he can select are: 9b

(1) Online -- an entry containing the text of the mail or, for longer items, a citation to it, is made in the user's initial file, which resides in his directory at SRI-ARC. 9b1

(2) Hardcopy -- the text of the mail is sent to the user (i.e., to an address of his choosing) via the U.S. Postal Service. 9b2

A third delivery method will be defined: 9c

(3) Network -- Journal mail addressed to the user will be transmitted to him at a host and mailbox of his choosing via the Net. 9c1

Short messages will be delivered in their entirety to the remote user, preceeded by the usual sort of header giving author, date and time, citation number, and title: 9d

JEW 4-APR-73 11:21 15490
SMFS Runs on TENEX 1.31 at the NIC
Message: Dave-- The NIC came up on TENEX 1.31 on 1-APR. I tried SMFS here on the new monitor and it works fine. I don't understand why I had problems running your copy of the code at BBN-TENEX. Are you still unable to reference the same archived file from two different TENEXs? --Jim 9d1

Only a citation to larger Journal articles will be sent: 9e

JEW 4-APR-73 17:51 15491
Farming Batch Work out to UCSB -- A Scenario
Location: (MJOURNAL, 15491, 1:w) 9e1

The remote user then has the option of explicitly fetching a copy of the file from SRI-ARC using his FTP subsystem. 9f

The second implementation -- based upon the new mail protocol -- will allow the remote user's system to determine, based upon the size of the piece of mail (which the sending system can formally supply the FTP server process), whether the article in its entirety is to be deposited in his mailbox, or whether only a citation to it should be posted there. A mechanism will be provided by which his system can fetch long articles for him automatically and deposit them in his home directory. 9g

The NIC will attempt, as far as is reasonably possible, to deliver mail and acknowledgments despite periods when the receiving host is disconnected from the Net. A number of delivery attempts spanning a number of days (or longer) will be made before delivery is abandoned as hopeless. 9h

The user who elects to receive Journal delivery via the Net will also find articles that he himself authors acknowledged to him in the same way. 9i

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(J15669) 10-APR-73 08:52; Title: Author(s): White, James E. (Jim) /JEW; Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: JEW; Origin: <WHITE>JUS.NLS;15, 9-APR-73 17:06 JEW ;