The Submit File subcommand in Journal apparently requires you to type the directory name (it couldn't find the file when I didn't). This is poor. Furthermore, most of the other commands with "File" in their name expect a TENEX file name; this one expects a link. Why not just one "Submit Link" command?? 1

(J15415) 30-MAR-73 0:06; Title: Author(s): Deutsch, L. Peter /LPD;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: LPD;

LPD 29-MAR-73 23:49 15416

Re: text editors vs. NLS

I prefer the Journal for communication since I get a permanent copy.

Re: text editors vs. NLS

Replying to your SNDMSG: I'm not actively involved in any NLS vs. text editor comparison, although I am interested in the subject and participated in a NLS vs. WYLBUR dialog (in the Journal) with Dick Watson (RWW) and others last year. I will read your file (BAIR,TEXTED,) with interest. I am familiar with the 940 text editor, QED, the PDP-10 editor, TECO, the Nova series editor, and various ATS/360 services; also with 940 and PDP-10 RUNOFF; also with some lesser-known systems like the BBN-LISP editor (which is entirely LISP-oriented but has a lot of similarities to the NLS structure editor). Please keep me posted on further investigations. 1

15416 Distribution
Bair, James H. ,

LPD 29-MAR-73 23:49 15416

Re: text editors vs. NLS

(J15416) 29-MAR-73 23:49; Title: Author(s): Deutsch, L. Peter /LPD;
Distribution: /JHB; Sub-Collections: NIC; Clerk: LPD;

it keeps saying can't whenever I try to sndmsg you 1

(J15417) 30-MAR-73 9:26; Title: Author(s): Padlipsky, Michael A. /MAP; Distribution: /JEW; Sub-Collections: NIC; Clerk: MAP;

more on Boston-NLS

It seems that the only feasible way to conduct an out-of-town TNLS course is through a TIP; with any host you get the double load average problem. There are only two TIPs in the Boston area--CCA and us. Our TIP is an experimental machine and often needed for testing, maintenance or debugging. Special arrangements have to be made to set it aside for a couple of days. But by June things may have changed: there may be another local TIP in the picture and we may have all our new terminals available and ready to be broken it. We may also have a proper imlac for dnls use as well. I don't know what facilities CCA has, mostly 2741's and dial-in modems I think. I can ask around a bit here, but not too seriously until we know there is a demand. Keep me posted. 1

more on Boston-NLS

(J15418) 30-MAR-73 5:59; Title: Author(s): Neigus, Nancy J. /NJN;
Distribution: /DVN; Sub-Collections: NIC; Clerk: NJN;

Bug in Create Display When Formatting TABS

There is a bug in create display which causes a line break in the middle of the last word on a line when you are using tabs:

```
bug     bug     bug     bug     bug     bug     bug     bug
bug     bug     bug     bug     bug     bug     bug     bug:    do
you see it?
```

1

WLB 30-MAR-73 11:36 15419

Bug in Create Display When Formatting TABS

(J15419) 30-MAR-73 11:36; Title: Author(s): Bass, Walt /WLB;
Distribution: /bugs ; Sub-Collections: SRI-ARC BUGS; Clerk: WLB;

Got your message. tnx. will re-boot to isi and bbn and fool around a while and see what happens.

tnx again. 1

(J15430) 31-MAR-73 14:09; Author(s): Crocker, David H. /DHC;
Distribution: /JEW; Sub-Collections: NIC; Clerk: DHC;

Display terminals

When I was in Washington D.C. last April checking on information retrieval networks in the government I could not help but notice that most of the places I visited were using Datapoint display terminals. Without knowing anything about our exact hardware requirements or about what Datapoint terminals can do vis-a-vis our needs, I pass this information on to you. Keep or toss.
Jake F. 1

Display terminals

(J15431) 31-MAR-73 17:47; Title: Author(s): Feinler, Elizabeth J. (Jake) /JAKE; Distribution: /MEH DIA; Sub-Collections: SRI-ARC; Clerk: JAKE;

Journal Development Suggestions (Response to -- 15407,)

Dave -- I have the following off-the-cuff suggestions re imminent Journal system development:

(1) Use the citation format provided by my user-program "F" as a starting point for comparison with the current format and solicit user feedback on the relative merits of these two formats and other possibilities.

(2) Consider adding the distribution list features I outlined in (14464,) -- or at least the distribute-to-same-list-as Journal # capability (RWW also had some suggestions along these lines).

(3) Provide a clean interface to allow programs to obtain catalog numbers and submit messages and files to the Journal -- you might want to read my paper on "Dialog-Supported Debugging System" concepts for background on this suggestion (15101,1:hw).

--

WLB 31-MAR-73 14:28 15432
Journal Development Suggestions (Response to -- 15407,)

(J15432) 31-MAR-73 14:28; Title: Author(s): Bass, Walt /WLB;
Distribution: /sri-arc ; Sub-Collections: SRI-ARC; Clerk: WLB;

re: 'fourth' imp-host interface at UCLA

I believe this matter to be a misunderstanding and sent a memo to NCC at BBN, DOLAN and SCHELONKA to this effect.

I suggest that you people read it carefully...

(J15433) 2-APR-73 15:42; Title: Author(s): Ollikainen, Ari A. J. /ARI; Distribution: /AAM DCW3 BAD; Sub-Collections: NIC; Clerk: ARI;

15433 Distribution

McKenzie, Alex A. , Walden, David C. , Dolan, Bruce A. ,

Along with the controversy-provoking question about status of
TIP GUIDE UCLA PDP10 address (whew) I also asked to have tip
buffers
tailored to support an IMLAC interacting with the NIC and dnls
using IMNLS
at 1200 baud.
Can this be done? If so, may we have port 6 on the USC-TIP
receive this treatment?

As mentioned in that message, I would like that port to always
be 1200 baud, in/out with no hunt, ASCII....
Please respond soon.

usually
ari

15434 Distribution
McKenzie, Alex A. , Walden, David C. ,

(J15434) 2-APR-73 15:49; Author(s): Ollikainen, Ari A. J. /ARI;
Distribution: /AAM DCW3; Sub-Collections: NIC; Clerk: ARI;

DCE 1-APR-73 21:06 15435

Supporting WLB (15387,) re TNLS print-parameter naming (15312,)

I agree with Walter's comments in (15387,), and urge that we change the TNLS terms to comply with the long-established Output PRocessor direcive terminology. There is no question in my mind that the two domains of printout controls should use the same concepts and terms; it seems natural to stick with the established ones; if it is not agreeable to the TNLS developers to do so, I would like to hear the argument. 1

DCE 1-APR-73 21:06 15435

Supporting WLB (15387,) re TNLS print-parameter naming (15312,)

(J15435) 1-APR-73 21:06; Title: Author(s): Engelbart, Douglas C. /DCE; Distribution: /JCN RWW CHI MFA WLB DLS DVN; Sub-Collections: SRI-ARC; Clerk: DCE;

response about Data points

...Datapoint terminals are upper case only. Thanks. Don 1

response about Data points

(J15436) 2-APR-73 14:42; Title: Author(s): Andrews, Don I. /DIA;
Distribution: /jake ; Sub-Collections: SRI-ARC; Clerk: DIA;

Computer-Aided-Instruction, SRI Service to RADC,Cheap Terminals

Sylvia Meyer 1

When you were here you mentioned a Sylvia Meyer who is interested in Computer-Aided instruction of NLS. Could you send me her address? I would like to invite her to a TNLS class and in general get in touch with her, 1a

Morning Net Spport 2

The other morning you all couldn't log in until after 8 because no one was here who could recycle the net. I talked to Jim about improving the quality of operator support off hours here, I journalized the conversation (journal,15404), and have good hopes we will do something about it. 2a

How Much Service We Can Give? 3

A number of mornings after 9:00 here there have been more than four users from Rome online. As you probably know, I called you about it one day and talked with Tom. We're really loaded those hours, and there is the furthr problem that a surfit of users from Rome keeps other network users from getting in. That's psychologically worse for them than for you since you have a comunity reservoir which includes atleast some good expereinces with the system. A guy who has used the system never or a few tiimes and trys to log in three times in a row and gets refused every time is likely to go away. 3a

The other afternoon I talked with Mac about his proposal to make major Logan a User. I suggested you all let him log in under RADC, or maybe, since he is in Washington, under one of the users in Washington, ARPA, Mitre-Tip, etc. I pointed out that NLS service is in all respectsthe same if he comes in through RADC, and that only ARC and Rome useres normally have directories asociated with individuals. 3b

Of course he can't get TENEX SNDMESSAGES unless he is a TENEX user; but I reported that the upcomming Network Mail Protocl will make our idents usable from anywhere on the net to anywhere on the net. 3b1

While I'm on the negative part of this document, Let me report that the possibility of our and your using the ISI machine is in jepordy. The reason is the growing load on their system. 3c

You will note in the problems section of the quarterly management report that we are still trying, however. 3c1

Would You Like Periodic Catalogs of Your Journal items? 4

Let me offer a service that is eassey for us: If it would be useful to you we could generate regualrlly, say monthly, the Title Word, Author, or some other Cut of the indices of the RADC journal subcollection. We could either make it into an online file, or mail you hard coopy, or both. Interested? 4a

Cheap Displays 5

There is a lot of interest here thes days (journal,14857) (journal,15339) in cheaper display terminals for the Network. One possibility is to hook several non-graphic, video terminals to a mini which would support the mice, and connecting the mini to the TIP or IMP involved, thus reducing the cost per terminal. It has been suggested that some people in SRI, not ARC but with our cooperation, propose to some one to develope such a system. 5a

DVN 2-APR-73 21:33 15437

Computer-Aided-Instruction, SRI Service to RADC,Cheap Terminals

(J15437) 2-APR-73 21:33; Title: Author(s): Van Nouhuys, Dirk H. /DVN; Distribution: /DLS (rww(for your information) JCN(cc); Sub-Collections: SRI-ARC RADC; Clerk: DVN;

HGL 2-APR-73 10:29 15438

Some Suggestions for the Journal: Response to (15407,)

The following are some short off the top of my head suggestions concerning possible additions to the journal in response to JDH's request (15407,). 1

Have a category of message which does not get stored in the permanent Journal collection. 1a

Several weeks ago a user requested the possibility of including quotes (") in Journal titles. 1b

Some Suggestions for the Journal: Response to (15407,)

(J15438) 2-APR-73 10:29; Title: Author(s): Lehtman, Harvey G. /HGL;
Distribution: /jdh ; Sub-Collections: SRI-ARC; Clerk: HGL;
Origin: <LEHTMAN>JRNMESS.NLS;1, 2-APR-73 10:01 HGL ;

Comments on Present and Possible ARC Catalog Procedures

The text of this is the same as 15406, with an attempt to get the matrix to print out in the form it was prepared.

Comments on Present and Possible ARC Catalog Procedures

Here are some comments relating to MDK's memo (15366,) and MEJ's memo (15370,) on ARC's practices in recording the existence and contents of documents which are sent to ARC people or which fall into ARC hands by other means.

1. There are distinct differences in the purposes of and disclosure allowable in: notes in a personal file, notes in a departmental file, and notes in a file or document widely distributed or available to the ARPANET or to the general public.

Our online files serve all these purposes, and the game includes making rules for each which give the optimum protection for the information consistent with its disclosure.

2. There are distinct differences in the disclosure given in: noting the existence of a document (logging or cataloging), noting its contents (abstracting), and reproducing its contents (printing or Xeroxing).

Our online files contain information in each of these categories, and the game includes making rules for each which give the optimum information transfer consistent with any necessary protection.

3. There are distinct differences in the treatment appropriate to recording: personal correspondence, organizational correspondence, unpublished text of a proprietary nature, published material prepared under government contract, published material prepared with private (nongovernment) funds.

All of the materials which are likely to come under cataloging processes may be categorized. Without getting into fine legal distinctions which are in litigation and which probably are not important to us at this time, here is a start:

Pers Corr. -- Personal correspondence: Letters addressed to an individual, even at an organizational address.

Org Corr. -- Organizational correspondence: Letters addressed to an organization, even though to the attention of an individual. Would include employment applications, patentable item submissions from outsiders.

Unpub Prop Text. -- Unpublished text of a proprietary nature: Unmailed letters, technical papers not yet accepted

by the government or a professional or commercial publisher. Informal files of notes.

Publ Gov Mat. -- Published material prepared under government contract. Includes technical reports, journal articles, meeting papers, and even books prepared by individuals as part of work on a government-funded project.

Publ Priv Mat. -- Published material prepared with private funds. Includes commercially published books and journal articles prepared without government funding.

I agree that it is accurate to say we are not now using rules which fit these distinctions, and I agree that we should be.

Here is an attempt at a matrix which could be used to categorize materials in question and to indicate proper procedures for their handling in our cataloging processes.

	PersFile	DeptFile	NetDist	PubDist
Pers Corr	C A R	C		
Org Corr	C A R	C A R		
Unpubl Prop Text	C A R	C A	C A	C A
Publ Gov Mat	C A R	C A R	C A R	C A R
Publ Priv Mat	C A R	C A R	C A R	C A

C = Cataloged A = Abstracted R = Reproduced

Some obvious implications of accepting the above are that:

1. We need to begin to distinguish among the types of files, entering into each only the items proper for the file, and only the information about any item which is proper for the file.

2. We need to begin to distinguish the materials to be noted in the files, entering each only in the proper files and entering the information about each which is proper for the file.

3. We need to set up procedures by which the status of an item may be changed. E. g., the release of a personal letter for abstracting in a public file, or the reproduction for public distribution of a proprietary item.

4. We need to act on a concept already in ARC catalog design, the theory of sets. We need provision for a full entry of information including an abstract of an item to be entered into one file while only a notation entry is sent to another. This would allow abstracts of personal letters to go into a personal file while only a log-type catalog entry would go into the public files.

Comments on Present and Possible ARC Catalog Procedures

(J15439) 2-APR-73 11:51; Title: Author(s): North, Jeanne B. /JBN;
Distribution: /dce mdk rww jcn mej ; Sub-Collections: SRI-ARC;
Clerk: JBN;
Origin: <NORTH>COMMENTSONCATREV.NLS;1, 2-APR-73 11:44 JBN ;

Journal Features and Changes Desired

Changes and features I would like to see in the Journal. 1

1. Place the link in the first line of the entry in the initial file. 2

2. Provide an option for personal notes and correspondence so that the note is readable only by the author and any recipients. No indication of the number or of its use should appear elsewhere. 3

We are evolving toward the inevitable, the provision of three classes of information: personal, group, and public. Reference the recent discussion of catalog entries (15366,) (15370,) (15406,) 3a

3. Make the feedback line for journal links read "Journal File" , not "Catalog file" as at present. 4

We have started, with the 3-author paper for the June conference, the convention of the terms "Journal Flle" and "Catalog Item" to distinguish properly between full-text and citation file entries. 4a

4. Allow the journalizing of items exactly as prepared, with the addition only of a notation giving the date of journalization and the initials of the journalizer, as a superheader. Added headers and statement indications should be marginal, with the Journal system assuming the burden of allowing for the widening or lengthening of pages to permit its additions. 5

The Journal should not, as it presently does, change the format of material submitted. It is undesirable to chop up highly formatted text to fit the Procrustean bed. It is a negation of the claim to great user responsiveness that the user cannot assume his output will conform to his visible input. For example, compare (15406,) and file (north,commentsoncat,) 5a

Journal Features and Changes Desired

(J15440) 2-APR-73 12:11; Title: Author(s): North, Jeanne B. /JBN;
Distribution: /sri-arc ; Sub-Collections: SRI-ARC; Clerk: JBN;
Origin: <NORTH>JOURFEAT.NLS;2, 2-APR-73 08:59 JBN ;

comment on telnet

alex-- i know this is rather late in coming but i have a suggestion for smoothing out the negoiated options stuff for options requirins subnegotiations. why not have a code at the level of do dont etc. called "sub negoitation" or "SB" such that the subnegoiations could use the same code as their prefix as was used in do - dont exchange. a disadvantage of this is that if a IAC SB FOO is sent to a guy that didnt negoiate FOO he wont know what to do, whereas with the current scheme he might have a chance by saying dont (though any parameters will cause hime trouble, so its not much different). this would have the advantage of having only one "telnet" code for each option. what do you think ? -- jon. 1

15441 Distribution
McKenzie, Alex A. ,

comment on telnet

(J15441) 2-APR-73 17:56; Title: Author(s): Postel, Jonathan B. /JBP; Distribution: /AAM; Sub-Collections: NIC; Clerk: JBP;

JEW 2-APR-73 08:25 15443

SNDMSG Problem -- Response to (15417,)

Mike-- My directory was over it's disk allocation for awhile.
That's why SNDMSG wouldn't work to me. OK now. Sorry. --Jim 1

JEW 2-APR-73 08:25 15443

SNDMSG Problem -- Response to (15417,)

(J15443) 2-APR-73 08:25; Title: Author(s): White, James E. (Jim) /JEW; Distribution: /map ; Sub-Collections: SRI-ARC; Clerk: JEW;

15443 Distribution
Padlipsky, Michael A. ,

Babysitting the Network Monitor Code

The Network code in TENEX 1.29 (at least as configured for our system) has been flaky for quite some time. 1

I'm aware that several times a day (I would guess) the Network 'hangs' for some undetermined reason, and either the Net-related system jobs (NETSER, FTPSRV, etc.) have to be restarted or the monitor code re-initialized ('recycled'). 1a

Periodically during the day, I attempt to log in to our system through the Net to verify the Network code, and fix things if my attempt is unsuccessful. 1a1

Within the last couple of weeks, we've also seen upon occasion a distinctly different, Net-related problem which seems to involve input from a few Net pseudo-tty lines getting clobbered, causing users to get bells in response to their input. 1b

The hope, at least on my part, has been that the quirks that we've observed in the Net are characteristic of 1.29, and that the Net will perform more reliably under 1.31 (in which the Network-related, monitor code has undergone a major rewrite). The intent was to avoid the investment of substantial amounts of time (mine) tracking down bugs in code that was soon to be (and has now, with 1.31) been thrown away. 2

The Network code in our system should run as reliably as any other piece of the monitor, and shouldn't (though certainly has in the past) require baby-sitting. 3

My feeling about Dirk's memo (see -- 15404,) is that we should observe the performance of the Network under 1.31 for a week or two. If it doesn't fly, we should invest my time and/or approach BBN about tracking down the bugs. 4

15444 Distribution

Van Nouhuys, Dirk H. , Lawrence, Thomas F. , Stone, Duane L. , Norton, James C. , Kudlick, Michael D. , Peters, Jeffrey C. , Neigus, Nancy J. , Forman, Ernest H. , Crocker, David H. , Wallace, Donald C. (Smokey) ,

Babysitting the Network Monitor Code

(J15444) 2-APR-73 10:03; Title: Author(s): White, James E. (Jim)
/JEW; Distribution: /dvn tfl dls jcn mdk jcp njn ehf dhc dcw ;
Sub-Collections: SRI-ARC; Clerk: JEW;
Origin: <WHITE>DVNMSG.NLS;2, 2-APR-73 09:08 JEW ;

JFV 2-APR-73 16:12 15445

Meeting notes, Energy Data-Base Project, 30-MAR-73.

Notes taken during a discussion of NLS-supported data-base workin connection with Dick Schmidt's project in the Environmental Group.

Meeting Notes: Energy Data-Base Project. 1

Date: 30-MAR-73. 2

Subject: To what extent can NLS be applied to the development of the energy data-base planned by ARPA? 3

Participants: Dave Berg, Lynn Spraggs and Dick Schmidt for the Environmental Group (briefly joined by others). Dick Watson, Mike Kudlick, Charles Irby and Jacques Vallee for the Augmentation Research Center. 4

Background: Last Summer the Environmental Group did a study for ARPA Energy Program Planning. They pointed out to them (Rudy Black is their contact) that a Data Management problem existed in every field of the operations of the DOD Energy Resource. 5

They had some experience running INFACT and doing some work for the NAPDB (Navy Pollution Data-Base System). On that basis they got 40K for a conceptual design study of an energy data-base. This has just been expanded to 65K with the understanding that a demonstration will take place in 6 months. 5a

Requirements: The prototype must run on ARPANET and should be used as a vehicle to test (or "exercize") the NLS system. 6

Summary of discussion: 7

Dick Watson introduced the participants and opened the meeting. The background of their project was reviewed. Dick Schmidt pointed out that he was in the process of writing the proposal and needed a clear view of the alternatives. 7a

There is a feeling at ARPA that no existing Storage/Retrieval system will be able to do this job and they want a new one developed. They do not want to apply an existing data-base system to energy data. Instead they want to design an ARPANET-oriented system that will support energy data exclusively. 7b

Mike Kudlick remarked that some of the data-base operations were common to all systems. For instance, storage, processing, etc. Dick Schmidt replied that he was only concerned with conceptual design rather than implementation. 7b1

Lynn Spraggs said that they had already looked at and

rejected several data management systems, including INQUIRE and SYSTEM 2000. Vallee asked if they were familiar with GYPSY, which is used in mineral data base applications, or of RAMIS, which Standard Oil has used extensively. They had not heard of these systems. Mike Kudlick mentioned RETRIEVE, which they had not tested either. 7b1a

Jacques Vallee asked what would typical uses of the data-base be. Dick Schmidt answered that the DOD wanted to be able to find out information like "What DOD unit is working on total utility systems?" They also want to keep an inventory of current projects, they need something that's a management tool. They need access to energy statistics, projected demands (by whom, how, when). This includes literature indexing of non-DOD sources. What can be used at other oganizations ? 7b2

The needs as described call for a flexible, restructurable data-base with interactive query capability, processing (in the sense of updates, sorting, hardcopy) and analysis. 7b2a

Mike Kudlick remarked that this seemed to imply access to mathematical processing too. The answer was that no modeling will be required, but some analysis capabilities are needed. 7b3

Jacques Vallee pointed out that update (rather than file creation and interrogation) was the key phase in retrieval systems. What would be the form of the updating operations? Dick Schmidt did not know this, but Lynn Spraggs said that a fragmented data-bank was needed. By this he seems to mean a distributed data-base. 7b4

Lynn Spraggs continued the discussion by pointing out that all the elements of the system are identified now, but NLS could probably enhance some of their capabilities, especially in editing and in input/output. 7c

Dick Watson brought the meeting back to the problem of supporting such energy files under NLS, and Mike Kudlick asked what would be the limitations in terms of file size. 7d

Lynn Spraggs answered that 10 million characters would be a reasonable estimate. Vallee expressed surprise that the job could be done with such small amounts of data, that does not seem adequate to cover even basic mining information. 7d1

Charles Irby said that the limitations of NLS itself were defined by the use of an eighteen-bit address pointer for files. We handle up to 400 pages for data and 100 pages for structure in a given file. 7d2

Dick Watson said that we were currently investigating the possibility of using NLS-assisted file manipulation, making use of a network interface. Data were edited and cleaned up in NLS, then sent out to another site for processing. 7d3

Lynn Spraggs described the system they were aiming at as a randomly-structured one allowing search on portions of data. Inverted lists would be maintained, sorting would be available and multi-level searches would be allowed. 7d4

Additional capabilities would include operating on retrieved data, e.g. compare it to other data, correlate it with bibliographies, create index entries, etc. 7d4a

Ultimately they want to be able to search general bibliographies and to move to the data section from article abstracts. 7d5

Jacques Vallee said that there was a third way in which NLS could be profitably applied to the problem (the first two alternatives are 1) new system entirely in NLS - rejected because of file size and speed, and 2) NLS-assisted work on the Net) 7d6

The third alternative would be to use NLS for what it does best, namely the support of dialogue among the distributed community building up the data-base: linking the people engaged in data-gathering and system definition. This would enable early demonstration to the sponsor of an actual working system that could develop into a data-base support program. 7d6a

The meeting terminated with discussion about what could be achieved in four months, and whether we should view this as a "pilot" prroject. Mike Kudlick was concerned that we might give the sponsor the feeling he was getting the foundation of an actual system when he was actually getting only a pilot implementation. 7d7

Dick Schmidt is writing his Proposal this weekend and presumably will point out the alternatives we defined in terms of possible usefulness of NLS to the project. 7d8

Personal comments: 7e

I came away from the meeting with the feeling that too little was known about user requirements to make specific recommendations regarding NLS support. The file sizes quoted during the discussion did not appear believable even in a preliminary, experimental way. NLS could be used immediately as a dialog support system among data-base builders, but its ability to support heavy file transfer and editing on the Net will not be tested until we have a chance to experiment with our own Catalog. 7f

JFV 2-APR-73 16:12 15445

Meeting notes, Energy Data-Base Project, 30-MAR-73.

(J15445) 2-APR-73 16:12; Title: Author(s): Vallee, Jacques F. /JFV;
Distribution: /DCE RWW MDK PR CHI; Sub-Collections: SRI-ARC; Clerk: JFV;
Origin: <VALLEE>ENERGY.NLS;1, 2-APR-73 15:51 JFV ;

UCLA RJS QUESTIONS

1) Will you allocate a few more VRBT's for UCSB?@ Names like NETUCSB1, NETUCSB2, etc. would be ok. 2)Do i have a conceptual misunderstanding of the RESET command? My process uses RESET to make all jobs have the same priority and then uses it again to set a specific job to priority 220. If, after that job prints out, I open the printer channel for more jobs none come. The priority i use initially is 70. Fromthis description, am I doing something wrong? I expected that the priorit< 70 jobs would come out anyway. If you want to call , my number is X3221 at UCSB.
J. Pickens. 1

15446 Distribution
Braden, Robert T. ,

UCLA RJS QUESTIONS

(J15446) 2-APR-73 12:52; Title: Author(s): Pickens, John R. /JRP;
Distribution: /RTB; Sub-Collections: NIC; Clerk: JRP;

<NLS>NP file move and <DOCUMENTATION> name change.

The online feedback files for reporting bugs and needs & possiblities, <NLS>BUGS and <NLS>NP, need to be moved from <NLS> to <DOCUMENTATION> so that the journal can deliver messages directy into the file. 1

Currently the messages are sent to HGL and CHI who then have to place them by hand. This is because the Journal System locks the file as the user when it sends a message. Since the directory <NLS> is not a user, the files could not be updated if the Journal sent messages directly to files in <NLS>. 1a

<DOCUMENTATION> is a user and would be an appropriate place for people to see what bugs have been reported, which ones have been fixed, and check the status of suggested needs and possibilities without having write access. The only problem with <DOCUMENTATION> is that it is a long easily mispelled name for altmodeless TNLS people who want to see what has been suggested or the status of their suggestion. 2

So it is desirable that the name be shortened to just <DOC>. This should cause very few problems as <DOCUMENTATION> is not currently the home of permanent files to which people would have a lot of links. However, if you can see that this may cause you any trouble, be sure to let Harvey or Kirk know before Friday April 6. 3

The following branches are currently being used to classify suggestions in the NP file. When you Journalize things to NP, please include in the title of the Journal Item the name of one or more of the branches if any of them fits. Things sent to the BUGS file will be placed in the appropriate catagory by an NLS Programmer. 4

Display feedback 4a

Teletype feedback 4b

Deferred Execution (DEX) 4c

Editing functions 4d

Addressing 4e

Links 4e1

Statement Numbers 4e2

Portrayal (online and hardcopy) 4f

Viewspecs 4f1

Output Processor 4f2

Output Quickprint 4f3

Journal DSS 4g

Ident System 4h

Catalog 4i

User Programs 4j

Miscellaneous Subsystems 4k

Query 4k1

Baseline 4k2

Calculator 4k3

Programming Languages and Compilers 4l

L10 4l1

Tree Meta 4l2

MPL 4l3

Debugging Tools 4l4

TENEX 4m

Scheduler 4m1

Archive System 4m2

Network (NIC) 4n

Hardware 4o

Display 4o1

Typewriter terminals 4o2

Printer 4o3

HGL KIRK 2-APR-73 17:00 15447
<NLS>NP file move and <DOCUMENTATION> name change.

ARC Environment 4p

HGL KIRK 2-APR-73 17:00 15447

<NLS>NP file move and <DOCUMENTATION> name change.

(J15447) 2-APR-73 17:00; Title: Author(s): Lehtman, Harvey G. , Kelley, Kirk E. /HGL KIRK ; Distribution: /sri-arc ; Sub-Collections: SRI-ARC; Clerk: KIRK;

NDM 2-APR-73 15:19 15448

Re: Consistent Names for Printing Parameters: 15387

I agree with Walt and Dirk. 1

NDM 2-APR-73 15:19 15448

Re: Consistent Names for Printing Parameters: 15387

(J15448) 2-APR-73 15:19; Title: Author(s): Meyer, N. Dean /NDM;
Distribution: /SRI-ARC; Sub-Collections: SRI-ARC; Clerk: NDM;

account request

We would like to obtain an account on the 6700 to enable us to transfer files from the cdc 3600 at UCSD to other sites on the network. Does the 6700 have a FTP server? I hope you can refer this request to the appropriate person.

Thanks for any help you can give us.

Bob Englemore (RSE)
Stanford University (SU-HP)
Computer Science Dept.
Stanford, CA 94305

15449 Distribution
Bowles, Kenneth L. ,

account request

(J15449) 2-APR-73 13:59; Title: Author(s): Englemore, Robert S. /RSE; Distribution: /KLB; Sub-Collections: NIC; Clerk: RSE; Origin: <SU-HP>ACCTREQ.NLS;1, 2-APR-73 13:48 RSE ;

TFL 2-APR-73 13:57 15451

SENDPRINT-26 MAR 73

This file explains how people at RADC can use the local line printer.

This document will attempt to explain to the reader how to use the sendprint command and output files to a RADC Data Products line printer. 1

First a sequential file must be created of the file to be printed. The proceedures are as follows: 1a

Log into NLS and load the file you wish to output to the printer. 1a1

Type in the three command characters O D P which means Output Device Printer (the case of the characters is not important) then type a ↑W which means control key & W simutaneously depressed -now type in an arbitrary name -this name will be the name of the sequential file you will output to the printer -now type a command accept. The system will respond with "copies 1" after which type a command accept. The system will respond with Processing Output and will return with an * when processing is completed. 1a2

```
[*] ODP ↑W FILENAME CA
[copies 1] CA
[Processing Output]
[*]
```
1a2a

Now that the Sequential file is created it can be output to the printer by use of the sendprint command at TENEX level. The proceedures are as follows: 1b

Type a ↑C to get to the TENEX command level. 1b1

Type send then depress the escape key and end the command with a CR (carriage return). The system will respone with PRINT.SAV;# Dougs-Hack version 1.0 Printfile: - The user should now type in the name of the of the sequential file he created using the ODP command then depress the escape key the system will respone with [Old version] after which the user should type a CR. The system will respond with "output to" after which type a "t" and then a CR.The system will request a "Tip #:" after which type a "146" and a CR. The system will request a "Port #:" after which type a "4" and a CR. The system will respond with "Send Form Feeds?" after which type a "y" and a CR. The system will respond with "Stop at Page end?" after which type "n" and a CR. The system will respond with "Go?" after which type a "y" and a CR. Now type in the following:"@" space "4" space "g" space "b" linefeed

The file is now being transmitted over the Network to the line printer. When transmission is complete the system will respond with "More files?". If the user wishes to print another file he types a "y" and a CR. If he wishes to terminate the process type an "n" and a CR. The process may be terminated at any time by using the ↑C command. 1b2

A second file will not be processed until the first file has been printed. The only way at present to know if a file has been printed is to check the line printer it self. Later a feedback mechanism may be provided the terminal user to notify him that the printer is ready for the next file. 1b3

```
[@]send ESC [PRINT.SAV;#] CR
[Dougs-Hack version 1.0]
[Printfile:] FILENAME ESC [Old version] CR
[output to] t[ip Confirm] CR
[Tip #:] 146 CR
[Port #:] 4 CR
[Send Form Feeds?] y[es Confirm] CR
[Stop at Page end?] n[o Confirm] CR
[Go?] y[es Confirm] CR
@ SP 4 SP g SP b LF

[More files?] y or n and CR
```

1b3a

The CDC 8090 computer is the local printer processor which must be running the printer program before output can proceed. This program can be started at location 1300. Additional copies of the last printer output can be made by running the program at location 1330. 1c

15451 Distribution
Rome Air Development Center (ISIM) ,

SENDPRINT-26 MAR 73

(J15451) 2-APR-73 13:57; Title: Author(s): Lawrence, Thomas F. /TFL;
Distribution: /RADC ; Sub-Collections: RADC; Clerk: TFL;
Origin: <LAWRENCE>SENDPRINT.NLS;15, 26-MAR-73 12:39 TFL ;

Call to Dr. Eric Willis 4/3 - JCN

I called Dr. Eric Willis today to let him know where we at ARC stand relative to the Energy Data Management System study and to see "where he was" in respect to the possibility of his ARPA office using NLS in its work. 1

I said that his suggestion that we work with the Systems Evaluation people on the energy study was a surprise to us when he visited, but that we have had several meetings since then and feel that it is a good opportunity for all concerned. I said that the Systems Eval people are about ready to send their proposal. 1a

He also feels that it is a good "test bed". 1b

I pointed out that the study is over a 6-month period and that since we had started talking about the possibility of Dr. Willis' office using NLS, we would like to further explore that possibility--before the 6 months are over. 1c

I said that we would probably be looking into Larry Roberts' office operation soon and that it would seem to be a good idea to look into his operation at the same time. 1d

He welcomed this and sees the logic of not waiting for the energy study to be completed before getting into this other area. I told him that we recognized that he wanted to look into NLS more before deciding to use NLS in his office. It appears to both of us that such a parralel look would be good. 1e

He says to just let him know when we want to come. 1f

Call to Dr. Eric Willis 4/3 - JCN

(J15452) 3-APR-73 06:58; Title: Author(s): Norton, James C. /JCN;
Distribution: /DCE RWW PR; Sub-Collections: SRI-ARC; Clerk: JCN;
Origin: <NORTON>WILLIS.NLS;1, 3-APR-73 06:43 JCN ;

AAM 3-APR-73 14:29 15453

Note to TELNET Protocol reviewers

Copy to JMM for Bob Merryman, copy to ERR for Milton Reese

Note to TELNET Protocol reviewers

Corrections, Proposed Changes, etc. to the recently distributed new TELNET Protocol Documents 1

Since I have already received some complaints that the review period specified is too short, change the cover letter to show a date of April 19 rather than April 12 as the last day for comments. 1a

Modify the "implementation schedule" dates (as shown on page 2 of RFC #495) to "1 July 1973" and "1 January 1974". 1b

There is a line missing and a typo on page 11 of the TELNET Protocol Specification (NIC #15372). The second and third sentences of the paragraph of explanatory text should read as follows: 1c

> Just as the NVT data byte 104 should be mapped into whatever the local code for "uppercase D" is, so the EC character should be mapped into whatever the local "Erase Character" function is. Further, just as the mapping for 174 is somewhat arbitrary in an environment that has no "vertical bar" character, the EL character may have a somewhat arbitrary mapping (or none at all) if there is no local "Erase Line" facility. 1c1

Jon Postel's telephone number and NIC ident will be added to the TELNET Option Specifications (NIC #15373) on page 1. 1d

It has already been suggested by two sites that there is a better way to handle the case of options which require subnegotiation. Basically, a new command code called SUB (code=247) would be added to the TELNET command set. When subnegotiation was required for an option, the two sites involved would first agree to subnegotiate via an exchange of WILL and DO as currently specified. Then, however, all subnegotiation would take place using THE SAME option code as was used during the WILL-DO exchange, but preceded by SUB rather than any of WILL, WON'T, DO, or DON'T. This scheme has the advantages of 1e

> Reducing the rate at which option codes are used up, and 1e1
>
> Shortening the length of the byte strings to be used for some subnegotiations. 1e2

If there are no objections to this scheme, I will incorporate it into the final documentation. (Note that I realize that

this will change the mechanism used for the "Approximate Message Size Negotiation" option somewhat.) 1f

15453 Distribution

Braden, Robert T. , Cerf, Dr. Vinton G. , Crocker, David H. , Crocker, Steve D. , Davidson, John , Grossman, Gary R. , Madden, James M. , Nelson, Lou C. , Padlipsky, Michael A. , Postel, Jonathan B. , Reins, E. R. (Dick) , Wolfe, Stephen M. , Cosell, Bernie P. , Thomas, Robert H. , Walden, David C. ,

AAM 3-APR-73 14:55 15454

Note to TELNET Protocol reviewers

This may be a duplicate copy, the NIC died JUST as I was submitting this earlier today.
The copy to JMM is for Bob Merryman, the copy to ERR is for Milton Reese

Note to TELNET Protocol reviewers

Corrections, Proposed Changes, etc. to the recently distributed new TELNET Protocol Documents 1

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> Reducing the rate at which option codes are used up, and 1e1
>
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If there are no objections to this scheme, I will incorporate it into the final documentation. (Note that I realize that

this will change the mechanism used for the "Approximate Message Size Negotiation" option somewhat.) 1f

15454 Distribution

Braden, Robert T. , Cerf, Dr. Vinton G. , Crocker, David H. , Crocker, Steve D. , Davidson, John , Grossman, Gary R. , Madden, James M. , Nelson, Lou C. , Padlipsky, Michael A. , Postel, Jonathan B. , Reins, E. R. (Dick) , Wolfe, Stephen M. , Cosell, Bernie P. , Thomas, Robert H. , Walden, David C. ,

Note to TELNET Protocol reviewers

(J15454) 3-APR-73 14:55; Title: Author(s): McKenzie, Alex A. /AAM;
Distribution: /RTB VGC DHC SDC2 JD GRG JMM LCN MAP JBP ERR SMW BPC RHT
DCW3; Sub-Collections: NIC; Clerk: AAM;

Improving a few Output Directives for Plex formatting

I believe that the series of directives (PxFLD,PxFLU,PxFLS) should be altered to increase the user's control of plex spacing.

The change I propose would entail adding a "[interval]" option (e.g., PxFLD[2]=2,PxFLD[3]=3) so that every transition between plexes and levels can be formated exactly as the user wishes. The default interval would be a ALL and the PxShow directive would enable the other directives which apply to specified levels.

Currently, you may only specify a 3-level format, then apply it to differnt levels. If the one format is insufficient, you are out of luck.

I would imagine the coding of such changes would be fairly easy. 1

DHC 3-APR-73 11:50 15455

Improving a few Output Directives for Plex formatting

(J15455) 3-APR-73 11:50; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

PxNum change, please.

Another Output Processor capability which I have just found to be a bit lacking is numbering statements consecutively, across branches.

That is, I have statements 1a, 2a, 3a, etc, which I would like to number consecutively 1,2,3,etc., but see no way of doing this with the Output Processor.

Adding another number "style" to the PxNum directive, which would generating a sequence number, one greater than the previous generation of the sequence number, independent of the location of the statement using the previous number, would seem to be the easiest way to handle this.

ALSO: It would be nice to have the option of pading PxNum's, whatever style and enclosures they have, with some blanks, before starting to print the atual statement. 1

DHC 3-APR-73 12:06 15456

PxNum change, please.

(J15456) 3-APR-73 12:06; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

Indentation directive

The various indentation directives (esp., IOvr & ISN) do not seem to allow the indentation of lines, other than the first in a statement, to 'replace' statement numbers. The visual effect I would like to be able to get would be:

```
1AA1 text........
     more text of same statemnt
     still more..... this is continuous, without <cr>'s.
```

IOvr is insufficient, because statemnt numbers take up a variable number of spaces, as you go into two diggits per field.

1

Indentation directive

(J15457) 3-APR-73 12:10; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

Fitting branches: another Directive

Last one for today (and it is merely a restatement of a note sent a long time ago):

There should be a 'Bfit' directive which forces a form-feed if a statement within an interval (or whatever) will not fit on the same page with its sub-statements.

E.g., if I have Bfit=2 and I have statements:

```
1 ......
   1a //////
      1a1 ------
      1a2 ------
   1b ////////
```

and a page fault would normally occur after statement 1a1, it will now
occur after statement 1.

This allows control of 'dangling statement' at the end of, or at the beginning of a page.

'Grab' is too restricted. It must be used for every statement, rather than applying globally.

Fitting branches: another Directive

(J15458) 3-APR-73 12:53; Title: Author(s): Crocker, David H. /DHC;
Distribution: /NP; Sub-Collections: NIC NP; Clerk: DHC;

A Few Thoughts on 'Experiences with AHI'

Jim Norton passed your paper in its March 30 version. I have a few comments that I hope are useful. In general they come either from anxiety not to make claims too wide for an audience new to NLS or from my interest in training people in NLS and in what is to be learned from your experience. 1

(bair, CH1, 1e) "flexibility approaching thought" seems going too far at present. We don't have contact with visual and other sensory images or associatave memory for example. 2

(bair, CH1, 2b1) "little difference..." seems going too far. Person to person encounter has, among other things, more information channels and more flexible ways to use the gestalt. 3

(bair, Ch1, 2b3b) Don't you need to point out here that it is a tree-form hierarchy as opposed to other hierarchies? 4

(bair, Ch1, 2b5a) Items (Catalogs) of 300 printed pages have been submitted. 5

(bair, CH1, 2b6) "almost anything computer technology can do" is going too far. Computers can parse sentaences, understand some speech, translate, to name a few examples. Of course we hope to hook into other systems some day. 6

(bair, CH1, 2c1a) We should mention that SNDMSSG is a TENEX, not an NLS System. 7

By default messages accumulate. 7a

You can move your message file into NLS, by the way, by the Execute Insert Sequential Command. 7b

(bair, CH1, 2c1e) "vast" seems too vast a word. 8

(bair, CH1, 3a) Just for discussion, it seems to me that Augmentation allows openess, that it will not creat it on unfertile ground, and it has possibilities for new walls and mazes. For example, it would be easy to create a system in which file access went with job title on even access to contain commands.(journal,15440,2) 9

(bair, CH1, 532) Well put 10

(bair, CH1, 6b2b) For your information, I read and act on journal items in general before memos. 11

A Few Thoughts on 'Experiences with AHI'

(bair, CH1), 6b6) Well, anywhere in the contenental USA where there is an ARPA net node. 12

Training in general. I think you would have had less resistence if there had been a primer oriented toward novice, and more across-the-net and in-person training. See--vanNohuhuys,train,) 13

I have also read (journal, 15441,) I have commented before on your plans, I wanted to add that the review of work in te field is certainly a service to all of us. 14

15459 Distribution
Bair, James H. , Norton, James C. , Kelley, Kirk E. ,

A Few Thoughts on 'Experiences with AHI'

(J15459) 3-APR-73 12:13; Title: Author(s): Van Nouhuys, Dirk H. /DVN; Distribution: /JHB JCN(cc) KIRK(fyi); Sub-Collections: SRI-ARC RADC; Clerk: DVN;
Origin: <VANNOUHUYS>BAINCRIT.NLS;3, 3-APR-73 12:09 DVN ;

comments on your ftp notes

i read your two memos on ftp. they look about ready to be sent out as rfc to me. my only suggestions might be to clarify the commands you would keep as file transfer commands eg structure etc. i mean to say that it might be helpful if you could say somthing about the parameters or sub types or whatever they have unless are all the same as indiccated in the "offical" documents.
-- jon. 1

15460 Distribution
Day, John D. ,

comments on your ftp notes

(J15460) 3-APR-73 09:59; Title: Author(s): Postel, Jonathan B. /JBP; Distribution: /DAY; Sub-Collections: NIC; Clerk: JBP;

Correction to (14404,) title

Correction to (14404,) title: It should read: Plan for L. Roberts Visit to ARC 4/11 and 4/12 1

Correction to (14404,) title

(J15461) 2-APR-73 23:30; Title: Author(s): Norton, James C. /JCN;
Distribution: /RWW DCE DVN PR; Sub-Collections: SRI-ARC; Clerk: JCN;

Response to 15416, re: text editors vs. nls

Thank you for your reply. I will be very interested in your comments on the comparison, if it can be called that. Please note that it is not finished and what is there is a rough draft...but it is coming along. Do my general comments hold for the editors you are familiar with 1

15462 Distribution
Deutsch, L. Peter ,

Response to comments on paper, Experiences with AHI.

Thanks for looking at the paper, your brief comments are encouraging. Please note that as with many things in the system this is a rough draft and in some instances just an idea/outline. I will send you copies at latter stages in the development of this collection of pet ideas. Hopefully, Doug's comment will no longer be appropriate. ie. about organization, clarification, etc. Thanks again, this collaborative dialogue is great 1

15463 Distribution

Engelbart, Douglas C. , Norton, James C. , Van Nouhuys, Dirk H. ,

Network Monitor Code: 1.29 vs 1.31

Jim ... I agree with your memo (MJOURNAL,15444,1:wy) that we should observe the performance of 1.31 for a week or so, before investing any substantial effort to track down the cause of the bugs that were occurring in 1.29.

Was ours the only 1.29 system experiencing those difficulties? If so, what is different about us from the standpoint of the Network interface? Do we know what BBN's major rewrite to the Network-related monitor code is supposed to accomplish? 1

15464 Distribution

White, James E. (Jim) , Wallace, Donald C. (Smokey) , Van Nouhuys, Dirk H. ,

MDK 3-APR-73 10:42 15465

Instructions for Recovering Dumped or Archived Files

A real do-it-yourself kit for weekenders, nighttimers, and others who need a file that's not on-line. Hope it is useful. Suggest you let people know it's available, especially BAH MEJ EJF for starters.

INSTRUCTIONS FOR RECOVERING A FILE
FROM THE DUMP TAPES
AND FROM THE ARCHIVE TAPES. 1

There are four main steps: 2

1) Determine the tape reel number
2) Find the tape reel and mount it
3) Run the BSYS subsystem under Tenex
4) Unmount and return the tape to its proper location. 2a

HOW TO DETERMINE THE TAPE REEL NUMBER 3

ARCHIVE SYSTEM 3a

For the Archive system, the reel number is given in the request.
That is, use the EXEC INTERROGATE command: 3a1

@ int [esc] <directory>file.ext;ver [cr] 3a1a

[cr] means carriage return key
[esc] means escape key, or alt mode key 3a2

DUMP TAPES 3b

To find the tape reel you need, you must determine the DATE and the TAPE NUMBER for that date. 3b1

To do this, get the listings from the bottom drawer of the file cabinet under the PDP-10 console. 3b2

Pick the listing that corresponds to the DATE of the dump tape you want to use. 3b3

Find the name of the DIRECTORY you want in the listing you've chosen. Opposite the name is the TAPE NUMBER for this date. 3b4

Look further in the listing for that date, till you get to the section covering the TAPE NUMBER for this DATE. Then look in that section for the directory name with the files listed under it. 3b5

That file list says what's on the tape for that directory, on that date. 3b5a

If you can't find the file you're looking for in the

list, you've got the wrong date. Try another listing, for another date. 3b5b

NOTE ::: One difficulty in finding the right date is that dumps are sometimes taken "incrementally". 3b5b1

"INCREMENTAL" DUMPS CONTAIN ONLY THOSE FILES THAT WERE CHANGED OR CREATED ON THE DATE OF THE DUMP. 3b5b2

Files NOT changed were dumped on a previous date. Therefore, you may have to search the listings for the date on which the file you're looking for was dumped. 3b5b3

If you find the file in that list, then you're ready to find the tape reel with that TAPE NUMBER, for that DATE. 3b5c

HOW TO FIND THE TAPE REEL AND MOUNT IT 4

The tapes are mounted on the rack near the center of tne computer room. You'll find the DATE and TAPE NUMBER typed on the reel labels. 4a

RED tapes at the top are ARCHIVE tapes.
WHITE tapes are DUMP tapes. 4b

To thread the tape through the read/write heads on the tape reel, be sure you hold down the toggle switch marked "START BRAKES" ... hold it towards the BRAKES position. 4c

Wind the tape around the take up reel a ways, then press
START, LOAD POINT
in that order. 4d

Be sure the door is closed, then press
AUTO 4e

Flip the dial to 0 (ZERO),
and be sure the other drive says 1 (ONE). 4f

Now you're ready to run BSYS. 4g

HOW TO RUN BSYS 5

LOGIN 5a

LOGIN AS OPERATOR (Password RALPH). Then do the following SCENARIO: 5a1

SCENARIO 5b

```
@ bsys [cr]
* restore [esc] FILE (FROM TAPE) [cr]

  ENTER TAPE UNIT (MTAN:)  mta0: [cr]
  LISTING TO FILE:  tty:[cr]
   MOUNTING TAPE DIRECTORY
  RESTORE  MTA0:   <directory>file.ext;ver [cr]
  [CONFIRM]  [cr]
  RESTORE MTA0:  [rubout]

* exit [cr]
@
```

5b1

NOTE: In the above scenario, the system output is in UPPER CASE, the user input is in lower case. 5b2

[cr] means carriage return key
[esc] means escape key, or alt mode key
[rubout] means rubout key 5b3

Typing of tenex filenames follows tenex conventions, i.e., altmode may be used 5b4

MORE THAN ONE FILE PER TAPE 5c

Hitting rubout after the "RESTORE MTA0:" message says to the system that you have no more files to recover. 5c1

If in fact you DO want to recover more files FROM THE TAPE THAT IS MOUNTED, then type the filename here instead of rubout. 5c2

If you want to recover a file from another tape, just hit rubout after the RESTORE MTA0: message and then run BSYS again. 5c3

BAD FILENAME 5d

If the system doesn't find the file you want in the tape's directory, then you will get a "question mark" as in Tenex.
You'll have to get the right filename or the right tape before proceeding. 5d1

BAD TAPE 5e

If the tape is physically bad, you will get the message
"CANT POSITION TAPE TO THIS FILE ?"
and you're out of luck, unless you can find another tape
with the same file on it. 5e1

HOW TO UNMOUNT AND RETURN THE TAPE 6

To rewind the tape, press
LOCAL RESET, REWIND
in that order. 6a

After it stops rewinding, press
REVERSE
This takes it off the take up reel. 6b

To complete the rewinding manually, be sure that you press and
hold down the toggle towards the BRAKES position. 6c

Put the CORRECT reel cover on, and return it to the shelf
EXACTLY where you got it. 6d

15465 Distribution
Wallace, Donald C. (Smokey) , Peters, Jeffrey C. ,

REVISED TIMING AND COST OF TEXT INSERTION WITH NLS 1

Introduction 2

Since the first measurements of the system were made (Rech, 14351), changes have been made in NLS in order to improve the efficiency of text insertion. In order to evaluate the improvement and ascertain the current status of the system, these measurements have been repeated. DEX is currently in the process of being revised so it was not included in these measurements. It should also be pointed out that improvements to DNLS of an even greater magnitude are expected to be completed in a short time. 2a

Summary of Results 3

Measurements were made under three different sets of circumstances in order to arrive at upper and lower bounds for CPU time used and also for comparison with the previous measurements. These were: Load Average >4, slow typing; Load Average >4, normal typing; and Load Average <4, Fast Typing. 3a

Under normal conditions, (Load Average >4, normal typing), the average marginal CPU time required to insert text into an NLS file is 3 msec per character with TNLS and 21 msec per character with DNLS. This is compared to 10 msec in TNLS and 30 with DNLS before the improvements. The cost of inserting one character with TNLS has therefore improved from .1 cent to .03 cent and with DNLS from .3 cent to .2 cent. 3b

It also appears that the cost of executing the insert command has decreased from 300 msec to 225 msec in TNLS and from 700 msec to approximately 500 msec in DNLS. (A more accurate estimate of the time in DNLS has not yet been obtained.) 3c

In the following table are estimates of the times it will take to insert N characters into an NLS file under various operating conditions. The detailed measurements from which these conclusions are drawn are given below. These measurements have been plotted in graphs in the document XDOC #14660. 3d

	Load Average >4 Slow Typing	Load Average >4 Normal Typing	Load Average <4 Fast Typing
TNLS	225 + 7.5 * N	225 + 3 * N	225 + 2.6

Revised Timing and Cost of Text Insertion with NLS

* N			
	DNLS	500 + 21 * N	500 + 18 * N
			4

Record of Measurements 5

1) TNLS

Number of Characters	CPU Time (sec)	Time per Character (msec)	Load Average	Notes	
72	.5	6.9	>4	Slow typing	
73	.6	8.2	3.4	"	
73	.8	10.9	>4	"	
73	1.1	15.0	5.9	"	
73	.8	10.9	6.7	"	
73	.5	6.8	>4	"	
142	.9	6.3	4.0	"	
143	.9	6.3	3.2	"	
143	.9	6.3	4.5	"	
143	1.1	7.6	3.9	"	
143	1.0	6.9	>4	"	
178	.5	2.8	--	Fast Typing	
184	.7	3.8	--	Slow Typing	
212	1.2	5.7	3.7	"	5a
325	1.0	3.1	>4	Normal Typing	
354	.9	2.5	--	Fast Typing	
534	1.2	2.2	--	"	
683	2.1	3.1	>4	Normal Typing	
709	2.0	2.8	--	Fast Typing	
725	2.3	3.2	>4	Normal Typing	
946	3.9	4.1	--	Slow Typing	
1085	2.9	2.7	--	Fast Typing	
1820	5.1	2.8	--	Normal Typing	5b

2) DNLS

Number of Characters	CPU Time (sec)	Time per Character (msec)	Load Average	Notes
71	1.5	21	.7	Fast Typing
74	1.4	19	1.3	"
143	2.4	16	1.0	"
145	2.7	18	1.0	"
186	3.2	17	1.4	"
205	4.0	19	.9	"
215	3.8	17	1.0	"
263	5.0	17	1.0	"
263	5.2	19	1.1	"
269	4.3	16	1.2	"
325	7.0	21.5	>4	Normal Typing
359	5.8	16	.8	Fast Typing

Revised Timing and Cost of Text Insertion with NLS

528	9.8	18	.7	"	
683	14.4	21.1	>4	Normal Typing	5c
725	15.5	21.3	>4	"	
1820	36.2	19.8	>4	"	5d

Revised Timing and Cost of Text Insertion with NLS

(J15466) 3-APR-73 17:21; Title: Author(s): Lee, Susan R. /SRL;
Distribution: /sri-arc ; Sub-Collections: SRI-ARC; Clerk: SRL;
Origin: <LEE>MEASURES.NLS;2, 3-APR-73 13:34 SRL ;

AHI/Network Line Printer

Procurement of AHI/Network Line Printer

AHI/Network Line Printer

In my opinion we should actively pursue the purchase of an independent AHI line printer as suggested if not directed by Bethke in a past Confession. The purchase of an independent printer would eliminate the reliability problems we are having with the present 8066 interface unit, 8090, tape drive, Data Products printer set up. The primary problem is with hardware failures in the printer. The periodic non availability of the printer greatly discourages its use when available. People must be able to depend an the printer inorder for it to develope use and it does develope use when dependable. If the branch and eventually the division is to be using a line printer and if we are to expand network use than an independent network printer should be purchased.
I suggest that we either pursue the procurement ourselves or pressure ISF to follow through with Bethke's directive.-TFL 1

15467 Distribution
Stone, Duane L. , McNamara, John L. , Kennedy, Edmund J. ,

AHI/Network Line Printer

(J15467) 3-APR-73 06:59; Title: Author(s): Lawrence, Thomas F. /TFL;
Distribution: /DLS JLM EJK ; Sub-Collections: RADC; Clerk: TFL;
Origin: <LAWRENCE>TEMP.NLS;2, 3-APR-73 06:52 TFL ;