

## User Feedback Decisions leading to NLS=8,3

This document contains the status of user feedback decisions for NLS=8,3. It is over 50 pages long, we advise you NOT to print it. Read it online. For the new features and bug fixes, see the Documented branch. For those suggestions that have been rejected, see the Rejected branch. The items scheduled to be done in the next version are in <NLS,MODS,>. Those items which remain as Needs & Possibilities are in <FEEDBACK,FDBK,FUTURE>.

User Feedback Decisions leading to NLS-8,3

Introduction, Assumptions, Decision Algorithm 1

Assumptions and Goals: 1a

This file was created as part of an attempt to develop a methodology for collecting, storing, retrieving, analyzing, and making decisions concerning user feedback. This methodology has not been finalized but is described in its present form below. 1a1

It has generally been observed that a "suggestion box" capability is needed to take advantage of user feedback that will allow the user to be easily informed of the status of his suggestion and to provide some scales of measurement for analysis and development decisions. The algorithm below is a way of augmenting this process with the specific intent of avoiding any extra burden on the already over-burdened people involved. 1a2

There are several steps in the following algorithm. These have been customized for the internal ARC feedback process concerning software development and documentation. However, they could be generalized for any development group that wishes to augment their feedback process. 1a3

Each Development group could have it's own feedback ident, sndmessage directory, decision file, and person responsible for coordinating the file. For example: 1a4

GROUP	COORDINATOR	IDENT(S)	FILE	SNMSG DIRECTORY
NLS DEVELOPMENT	JOAN	FDBK	<FEEDBACK,FDBK,>	FEEDBACK@SRI=ARC
USER DEVELOPMENT	JHB	FEED	<FEEDBACK,FEED,>	FEEDBACK@OFFICE-1
NIC DEVELOPMENT	JAKE	NIC	?	

If one group is sent an item which does not belong to that group, the feedback coordinator would be responsible for forwarding the item to the proper group. 1a6

A central Query Database could provide places from which any user could access the decision file to determine the status of his suggestion or to automatically express his opinion (via the Insert Opinion command described below) concerning a development thrust as depicted by a decision file. 1a7

An ANALYSIS team uses the decision files to analyze the feedback and make recommendations. 1a8

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It is assumed that the process of organizing, analyzing, and keeping track of user feedback, bugs, needs, possibilities, and thinkpieces is important enough to the decision process in a living system to warrant the allocation of the necessary initial setup and continuing maintenance time,

1a9

Algorithm for the NLS Software Development And Utility User Development Feedback Mechanism:

1b

## USERS:

1b1

Send comments through SNDMSG to FEEDBACK@SRI-ARC or send them through the Journal to the ident: FDBK,

1b1a

Utility members send comments to their architect, who will forward them, or send them directly to ident FEED or through SNDMSG to FEEDBACK@OFFICE-1. An architect can send things to be shared by other architects to KWAC,

1b1b

Review the newly updated Future Needs & Possibilities branch when sent (see last step). They send their opinions to FDBK, use the "Insert Link" command or use the Insert Opinion Command (see SOFTWARE below).

1b1c

## FEEDBACK COORDINATOR periodically (weekly):

1b2

Forwards items that belong to other groups to the appropriate ident,

1b2a

Reviews the Unclassified Items branch in <FEEDBACK>FDBK and makes an attempt to move bugs, trivia, Needs and possibilities, and implemented items to the appropriate places and consolidates duplications,

1b2b

Prints out (or otherwise gives to DEVELOPMENT) the BUGS and ACCEPTED TASKS branches,

1b2c

## NLS SOFTWARE DEVELOPMENT:

1b3

Once a week, or as provided by the Feedback Coordinator, reviews each item in the BUGS and ACCEPTED TASKS branches, and marks it as

1b3a

Future NP

Done

Rejects it or

Assigns it to an implementer,

1b3a1

\* Moves marked items to their assigned branches in FDBK.

1b3b

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- Bug reports which are not clear enough should be rejected and the sender informed. 1b3b1
- [An optional step depending on the available time allocated for Feedback purposes would be to forward this current status information to the user(s) who made the suggestion.] 1b3b2
- [\* items to be completed by the Feedback coordinator.] 1b3b3
- Updates the Accepted tasks branch in the Feedback file to contain the current NLS implementation categories with the ident of the implementer responsible for each category. 1b3c
- To items moved into the DONE branch, adds any changes made that are different from or not included in user feedback with descriptions sufficiently accurate for the documenter to document them. Note: if an implementer makes a change in the system and does not somehow get it represented in the DONE branch, IT WILL NOT BE DOCUMENTED. 1b3d
- Notifies the Feedback Coordinator when bringing up a new system. 1b3e
- After bringing up a new version of NLS, reviews each item in it's Future Needs & Possibilities branch and either 1b3f
- confirms its current position,  
moves it to a more appropriate place,  
rejects it, or  
assigns it to an implementer. 1b3f1
- ANALYSIS; 1b4
- Analyzes information in FDBK and integrates it with other data for the purpose of making suggestions to operations, NIC, user-development, help-development, software-development, and analysis and for determining problem areas to be followed up with further studies. Analyzes feedback mechanism for possible improvements. 1b4a
- DOCUMENTATION; 1b5
- Checks the Help System branch under Accepted Tasks and implements or rejects suggested changes. 1b5a
- Periodically checks for new items in Done Branch, moves each item out of the branch into the Documented branch, and

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updates the documentation if necessary, <See --  
documentation, manual,>.

1b5b

FEEDBACK COORDINATOR for each new version of NLS:

1b6

Places items in each development area in the Future Needs &  
Possibilities branch in a suggested order of execution as  
directed by ANALYSIS supported by analysis' data and  
suggestions if any.

1b6a

Whenever a new version of NLS comes up, the feedback  
coordinator journalizes the entire feedback file at this  
time for posterity and to save space.

1b6b

First, use SENDMAIL's Number Assign command to get the  
number for the file.

1b6b1

Then fill out the proper NLS version number and page  
total in the following form and process it.

1b6b2

TITLE: User Feedback Decisions leading to NLS=8,3  
AUTHOR(S): FDBK  
DISTRIBUTE FOR INFO-ONLY TO: SRI=ARC KWAC

COMMENT: This document contains the status of user  
feedback decisions for NLS=8,3. It is over 50 pages  
long, we advise you NOT to print it, read it online.  
For the new features and bug fixes, see the Documented  
branch. For those suggestions that have been  
rejected, see the Rejected branch. The items  
scheduled to be done in the next version are in  
<NLS,MODS,>. Those items which remain as Needs &  
Possibilities are in <FEEDBACK,FDBK,FUTURE>.

1b6b2a

After journalization, items for that NLS version in the  
Executed and Rejected branches are deleted and the link in  
the branch statement for these branches is updated to point  
to the newly journalized version.

1b6c

Very old Future NP items should be verified with their  
supporters to determine if they are still desired.

1b6d

SOFTWARE to augment this Algorithm:

1c

Insert Opinion B/A: (in favor?) Y/N: OK:  
This command would be in the readmail subsystem and would allow  
anyone to insert their initials in front of an item classified

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in FDBK independent of whether they have write access. A minus sign would precede the idents of those that said "no", 1c1

The Insert Link command in Sendmail subsystem should be implemented to allow anyone to use it on an item classified in FDBK independent of whether they have write access, 1c2

Complete Feature B/A (exactly as stated?) Y/N: OK:  
This command would move an item specified by an implementer from the implementer's "to do" branch to the appropriate category in the Implemented branch in FDBK to be documented, 1c3

Author: announcements of old versions of feedback 1d

FDBK 25-SEP-74 14:16 24054  
User Feedback Decisions leading to NLS=8.1  
Message: <HJOURNAL, 24051,> contains the status of user feedback decisions for NLS=8.1. It is over 100 pages long, we advise you NOT to print it. Read it online. For the new features and bug fixes, see the Documented branch. For those suggestions that have been rejected, see the Rejected branch. The items scheduled to be done in the next version are in <NLS,MODS>. Those items which remain as Needs & Possibilities are in <feedback,fdbk,future>.  
\*\*\*\*\*Note: Author Copy\*\*\*\*\* 1d1

FDBK 24-SEP-74 23:37 24051  
User Feedback Decisions leading to NLS=8.1  
Location: (HJOURNAL, 24051, 1:w)  
\*\*\*\*\*Note: Author Copy\*\*\*\*\* 1d2

First journalized fdbk file == <24048,> 1d3

Unclassified Items 2

Journal (Sendmail and Message items) 2a

JHB Notes from Laura Gould Visit 24 June 1974 (Visitlog)  
1-JUL-74 18:25 (GJOURNAL, 23503, 1:w)  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\* 2b

Comments: These notes are colored by my interests, rough but readable, and hopefully contain those suggestions that will be useful in the development of NLS, 2b1

Notes from Laura Gould Meeting, 24 June 1974 2b2

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seminar included discussion of three areas concerning the CAI NLS Project , "Mixed Intivie Tutorial Sysytem to Aid Users of the On-Line System", Contracted by The Deputy for Command and Management Systems, ESD, USAF (Dr. Mayer), 2b2a

Overview of the Primer (...see hardcopy): 2b2b

3 Units (chapters) or "lessons" which are roughly estimated to take about 1,5 hours each; 2b2b1

13 demo tasks run by the simulator; 2b2b2

An Agenda program drives Scholar (not sure why that's significant,...); 2b2b3

It has the question mark facility, 2b2b4

Student tasks: 2b2b5

Student performed tasks are evaluated == task evaluator which references to a preferred command sequence; 2b2b5a

Has hierarchy of tasks; 2b2b5b

references to kinds of questions the student asks, noting the knowledge necessary to answer; 2b2b5c

Question-answering system: 2b2b6

Natural language == comfortable subset of English, uses dynamic parsing; 2b2b6a

Data Base which includes the structured facts encompassing 90% of the Primer (see listing of Data Base); 2b2b6b

Instantiation == will do natural language command that is discussed or introduced by the student. In general, the simulator, written in LISP, can perform 90% of the NLS commands, 2b2b6c

Primer deals with NLS divided into subsystems, eg, file handling, 2b2b7

Does not provide for different groups of students, no facility for skipping ahead over material that is known a priori, 2b2b8

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Also "secretive", that is about not introducing commands, many of which represent short cuts, until a later session could conceivably cause bad feelings... "why didn't it show that before,..." 2b2b8a

Recognition issue: 2b2c

LEG advocates DEMAND, not fixed anticipatory as we do, 2b2c1

because of the mnemonic value of typing up to a certain (comfortable) point, maybe even the whole command word, and the CONTROL of recognition (system doesn't take off and do something until the student is ready,\*\*) 2b2c2

Recommendations (in addition to the recognition mode): 2b2d

Explicitly terminate the L: prompt field with CA, whether Null or not; 2b2d1

Print file command instead of Print only. This would not move the CM but would Print file from origin with basic default viewspecs (all, all, m,...); 2b2d2

Print Rest command was cited (CHI) as improvement over the current Print only, which doesn't have a noun field. 2b2d3

LEG's comment in the context of training and introducing NLS to new Users: "Need subset of NLS," 2b2d4

NO C: prompt for the first 2 fields: "what else can you type after the the herald?" Also, F: for filename rather than T: 2b2d5

"Noise words more helpful than prompts", 2b2d6

HELP data base not comprehensible, gave example of response to question about address. (Show Address,...) 2b2d7

JHB Questions 2b2e

Suggestions for explaining plex. 2b2e1

Reference book...necessary?? Yes, of course. 2b2e2

Ideas about test of NLS skill level...user assessment. 2b2e3

Graduated levels of NLS with restricted command set availability...first cut of this was given to her. Her response was favorable. She recommended the addition of



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markers and introducing SIDs a little earlier in the progression,

2b2e4

Bugs: see <nls,mods,bugs>

3

Praise

4

RLL 25-SEP-74 17:19 24058

Show directory command tooooooo long.  
 Message: What good is the show directory command if it take considerably longer to see ones directory using ths NLS command than using the tenex dir command? I have found myself going to Tenex almost always because of the time. P.S. Thanks for 'paging' the directory. That makes the NLS command a bit better for long dirctories (over the tenex comaand.)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

4a

Things that work impresssively well: show also. (I think this is the ideal structure for esacaping treeism). show <words> makes remarkably intelligent guesses, but it can also send you off into left field. The "O function is implemented beautifully. the "G in the middle of an editor command getting you help is quite impressive. (Especiaslly when it gets you some help that you want). The HELPs themselves are rather well written in most places that they are "finished". (RICART)

4b

KIRK 13-MAY-74 17:27 22983

Praise for the Feedback system

Message: I think the way Susan has been handling the NLS feedback is excellent. This is something we should have had long ago and I hope it becomes an established procedure for the future. It is all too easy to take for granted necessities that aren't apparant because they are working as they should. Let's not let this one go by the wayside after the newness of the new NLS wears off.

\*\*\*\*\*Note: \* action \* \*\*\*\*\*

4c

1-APR-74 1828-PDT BECK: Praise to Allah the HELP Programmers

Distribution: FEEDBACK

Received at: 1-APR-74 18:28:21

4d

When I am busily constructing networks in the HELP Database (in New NLS) and want to check how MY links work, I can immediately do a <control-g>, one show command to get to the branch I was working on and then step through the menues I have just created just as a HELP user would, do a Quit, and PRESTO! I'm back where I was in Editor, editing the file again. Very Nice.

4d1

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17-FEB-74 1700-PDT KELLEY: Praize for the way level indenting works in xnlis

cc: irby

Received 17-FEB-74 17:00:11

4e

I just used 21 levels with viewspecs 1 and B in <continuum,sri> and they worked fine. When I turned off B, it worked fine also. Things like this which seem primarily database oriented and not document production or software production oriented are rare so I really appreciate one when it comes along. It makes me very happy. Thanks,

-- Kirk

4e1

JMB 17-DEC-73 11:31 20929

new TNLS

Message: I like what Delete File does: ie, prints--

"Deleted Files are:

( beck, dodad,nls;1, ) and its partial copy"

Good Work!

4f

KIRK From-To feature in the Move and Copy commands,

4g

KIRK Ability to bug with the Insert command,

4h

KIRK All of the directory commands from NLS,

4i

#### Rejected Suggestions

> For rejected suggestions prior to September 24, 1974 see <24104, rejected>.

5

RLL 14-JUN-74 01:04 23376

new show command for intrafile addresses,

Message: How about a 'Show Return Stack' command. Does the same as 'Show File Return Stack' command but for the intrafile stack.

A related suggested, but more complex I am sure, is to allow bugging of any of the items shown in either the Show return stack or show file return stack, the bugging would of course mean to jump to that spot. I guess an option after th list is shown would be OK/C: where C = Jump.

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5a

KIRK 25-JUL-74 17:10 ---IGNORE - this is a feature, not a bug

--- 23683

Bug in Jump to name external

Location: (GJOURNAL, 23683, 1:w)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5b

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Jump to name external does not search at the address you set in useroptions if the file has a different address set,

5b1

KIRK 24-SEP-74 20:02 24044

I can't get rid of split screen

Message: Occurs after a second edge is inserted perpendicular to the first and then deleted leaving a vertical split. Must reset to get rid of the split.

Worked October 4, 1974\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5c

JBP 2-OCT-74 09:54 24118

substitute command is backwards

Location: (JOURNAL, JRNL22, J24118:gw)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5d

KIRK 29-SEP-74 15:53 24091

Help bug in WORK,

Message: Typing the word "searching" in the first iteration of the Help command in the editor finds the word but does not display it's substructure. Coming down to the same item via menu numbers works fine (i.e., the substructure is menued).

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\* This is not a software bug

5e

KIRK Two suggestions for handling statement names in NLS superdocuments that must live in TENEX file structure. %informaton preceding directory name in ORIGIN statement should be saved - forget 2nd part%

14-DEC-73 12:03 (MJOURNAL, 20903, 1:w)

5f

TENEX files are treated as very special branches in NLS. With respect to statement names this fuction is inconsistant or prevented by the way NLS handles some simple arbitrary conventions. One of these has to do with the origen statement. The other is in the DAE.

5f1

ORIGIN statement

5f2

Information inserted in front of the directory name in the origin statement should not dissappear when the file is updated. This is so the origin statement can be named something other than the directory name, and so the origin statement can contain information as the parent node of a database branch with the Filename, Date, Time Ident ; garbage at the end, hidden when line clipping is used,

5f2a

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DAE: 5f3

. period in front of an element specifies a Structural Relation. 5f3a

\* star in front of a name specifies a search for the NEXT name in the branch specified by the origin statement. 5f3b

no character in front of a name specifies a search for "any such name." 5f3c

Under this implementation, a name following other DAE elements would probably result in the preceding elements being ignored. This feels inconsistent with structural relationships which are taken in relation to the preceding elements. 5f3c1

I suggest that the search for content, word, character, marker, and names be in relation to the branch currently specified. 5f3c2

That is, the search would be limited to the branch specified by the elements preceding the name. The default would be the origin statement and thus would not change the way DAE's function when they contain only one element. However, it would become noticed (and useful) when a name followed other DAE elements. 5f3c3

This seems intuitively reasonable to me, but I have heard arguments that executing elements in this way would be inconsistent with the way other DAE elements are executed. I submit that each DAE element is executed differently depending on the characters that precede or surround the text of the element. 5f3c4

(3a3) -014- Repeating prompts is unnecessary in TNLS: cleanup TNLS echoing. i.e. Update C: File OK;/C C: Compact OK:, the two C's are not necessary. (feedback,fdbk,02828) 5g

IGNORE 5g1

(4b2) -016- When using Jump to Link command with viewspecs specified in the link, let viewspecs be manually set to SUPPLEMENT those in the link. (feedback,fdbk,03271) 5h

for example, "jump (to) link SELECTION VIEWSPECS <confirm>" 5h1

moreover, implement this capability in ALL jump commands. 5h2

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i.e. implement this in the J[ump to] R[eturn] and J[ump to ]  
F[ile] R[eturn] commands, 5h3

IGNORE, not allowing viewspecs 5h4

KIRK 17-AUG-74 17:22 23816  
exceed capacity bug  
Location: (GJOURNAL, 23816, 1:w)  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

51

-----1-----1-----1-----  
=

511

Comments: Why is it that when ever I try to edit the statement  
with all the dashes, I get 'exceed capacity'. But when I  
refresh the screen, everything is cool, it did the edit, 512

NOT REPRODUCEABLE 513

KIRK 14-SEP-74 19:10 23973  
Showing information that exceeds the view area  
Message: The last two times I've shown something, it has pushed  
the top line or so off the screen and then said Type CA for more  
CD to quit ... Typing CA shows nothing but the message "Type CA  
to continue", No more info.  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5j

KIRK Output Terminal <^o> bug  
1-AUG-74 20:30 (GJOURNAL, 23716, 1:w)  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5k

<^o> after final confirmation in Output Terminal command in  
DNLS (TNLS too, I guess), causes the user to be hung at IO  
WAIT, 5k1

NOT REPEATABLE!! 5k2

DVN 21-AUG-74 12:30 23837  
Daughter-in-law of Set Viewspecs (23832)  
Location: (GJOURNAL, 23837, 1:w)  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

51

The Problem (bug?feature?) is that Reset All in the Useroptions  
System does not touch the Viewspecs ON/Off status, 511

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RLL 25-SEP-74 17:19 24058

Show directory command toooooo long,  
 Message: What good is the show directory command if it take  
 considerably longer to see ones directory using ths NLS command  
 than using the tenex dir command? I have found myself going to  
 Tenex almost always because of the time. P.S. Thanks for  
 'paging' the directory. That makes the NLS command a bit better  
 for long dirctories (over the tenex comaand,)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

5m

Future needs & possibilities or need discussion, evaluation,  
 > for items already completed, see == documented>

6

Small NLS changes requested (not bugs)

6a

KIRK 26-FEB-74 16:32 22065

Some comments concerning the new dynamic addressing elements  
 from a database building and document referencing point of view  
 Location: (HJOURNAL,22065,1:w)

\*\*\*\*\*Note: (Secondary Distribution Copy from XXX)\*\*\*\*\*

6a1

The new AE (address expression) is a very powerful tool. I  
 don't think there is a single special character that is not  
 used for some special function. It is important that these  
 functions be specified unambiguously with the minimum number  
 of characters so that the maximum number of functions can be  
 accomodated,

6a1a

In this framework, I feel the following suggestions should  
 be considered,

6a1b

First, I strongly oppose using Ampersand for jump to Name  
 External. Ampersand is a special character that should be  
 available for use within a name. Conjunction is a valuable  
 and necessary searching concept that is especially important  
 for cutting down on duplicate names in large databases while  
 retaining a mnemonic and easily typed identifier. The  
 alternative to "g" is "-and-" which is so clumsy as to  
 almost preclude it's use.

6a1c

I suggest instead of using &, that \$ be used for "jump to  
 name external",

6a1d

[As a side issue, I think that the external default is  
 backward. The default should be "jump to name external"  
 with the special character required if you don't want to  
 search the external file(s).]

6a1d1

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In the TNL\$ LINEFEED command, can we have NLS echo something (like <LF>) to show what you've typed before it goes on to print the statement?

It would be useful for the TNL\$ user to be able to read his TNL\$ printout later and see what he did to get that result. (21198,) (JMB)

6a2

3-JUL-74 1357-PDT LEAVITT: buggish  
Distribution: FEEDBACK  
Received at: 3-JUL-74 13:57:38

6a3

Not really a bug but a pain. I use the substitute text command a lot in tnl\$. If you try using it you will see that it feeds a great deal of paper in completing one substitute ( a command that has a number of steps, there is no need to have a blank line between every one of those steps. When I do a whole lot of substitutes the amount of ti paper I use is horrendous. It insults my basic liberal bullshit ecological concerns.

6a3a

SRL 27-MAR-74 09:23 22504

Output Quickprint Branch

Message: Is there some reason why the message output Quickprint branch couldn't be displayed when viewspec g is on?

6a4

In Demand Recognition, CONFIRM should work for recognition. This way Altmode or SP might not be required before a CONFIRM even after a complete command=word has been typed. (22175,) (KIRK)

6a5

Instead of the current "Action or Information only" barrier in the Send command, the default should be "Information" with an OPTIONAL Action commandword (recognized by a single <"U">. (22941,) (KIRK)

6a6

Distribution command hard to find.  
Send sounds like the choice to use when finished.  
Double verification not needed following Done.  
Interrogate should be default with options available  
Action? Y/N - If no, automatically fyi. (JAKE)

6a6a

Allow "none of the above" when submitting via Sendmail instead of for info or for action (22878,) (JMB).

6a6b

Make Interrogate the default when entering sendmail unless there is an unfinished item.

6a7

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RWW 9-MAY-74 13:01 22931  
 Bugs and Thoughts - New CML  
 Location: (MJOURNAL, 22931, 1:w)  
 \*\*\*\*\*Note: \* action \* \*\*\*\*\*

6a7a

I tend to use Interrogate all the time. Do others? If so why not just automatically enter interrogate when arriving in SENDMAIL. Should other fields be added like keywords and obsolete, assuming one can pass them easier than at present. (22931,) (RWW)

6a7b

The current situation of automatically initializing whenever entering sendmail makes Execute Sendmail practically useless. Yet I rarely want to send more than one item...

6a7c

KIRK 16-MAY-74 19:05 23024  
 Interrogate opinion  
 Message: I think the order should be; (1) Title (2) Type of source (3) Send (4) Show status (5) Done. First impression is I wouldn't want interrogate to be the default but I haven't thought about it.  
 \*\*\*\*\*Note: [ INFO=ONLY ] \*\*\*\*\*

6a7d

KIRK 17-MAY-74 12:18 23032  
 Trying out interrogate  
 Message: After consideration, Interrogate as a default mode when entering SENDMAIL seems to be a good idea only if the user does not already have an unfinished item. This would also make a good signal that would help me avoid a problem I've had where I've quit out of SENDMAIL unfinished, then gone back in and started on a new item only to find sometimes embarrassing parameters attached to the new item that were left over from the old.  
 \*\*\*\*\*Note: [ INFO=ONLY ] \*\*\*\*\*

6a7e

SLJ 17-MAY-74 17:02 23039  
 comment on your 23019  
 Message: i think interrogate should yes yes be default in sendmail, standard order would be faster for me, bye, and you will will will get bike back back back,  
 \*\*\*\*\*Note: [ INFO=ONLY ] \*\*\*\*\*

6a7f

The sequence Replace From...To...By seems to be clearer than Replace At...Through...By. In general From-To seems clearer than Through (JAKE)

6a7g



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(type of source;) should come after (title;) and (send to;) so a message could be written in relation to the title and sendlist, (22761,) (KIRK) (JAKE)

6a7h

Institute Program CONTENT (as) Content/Sort/Seqgenerator OK  
 Could be:  
 Institute Content/Sort/Sequence CONTENT OK

6a8

Update File OK / <Old/Compact/Rename OK>  
 could be:  
 Update File/Old/Compact/Rename OK

6a9

KIRK 8-JUN-74 22:27 23368  
 hatred for change in replace link implementation  
 Message: A screen full of carefully thought out, irreproducible thought just vanished with the message: "ILLEGAL LINK" as I was using the Replace Link command. Total bummer.  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a10

KIRK 8-JUN-74 22:31 23369  
 inconsistency-in replace link command  
 Message: when I say replace invisible, and type in a visible, my typein doesn't disappear with the message ILLEGAL INVISIBLE.  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a10a

Load File BUGWORD VSPEC CA is what I'd still like to see, with extraction of a valid file name from the bugged visible, and with display of the deduced-file name before VSPEC CA (at least before the CA part). (23142,) (DCE, KIRK)

6a11

Jump File BUG VSPEC CA is o.k., where assume you bug a link and it extracts file name == but if Load File worked right, would rarely really need this option. Also, should show the file it will take you to before you commit yourself with the final CA. (23142,) (DCE)

6a11a

Jump Link B:/A: VSPEC CA I'd also like, where the VSPEC would over-ride those provided in the link. (23142,) (DCE)

6a12

In TNLS, I used to be able to say Print Branch (work, td: gebtzm) CA CA and have the VSPECS applied to the printout. Doesn't seem to work that way now? How come? Generally, I'd like to see the VSPEC of the last link used in an address apply to the view (Print or Display), unless LIT

User Feedback Decisions leading to NLS=8.3

vspecs added by user (which would over-ride conflicting link-held vspecs), (23142,) (DCE)

6a12a

Break Statement: As it was previously specified (Old NLS, and from OLD DCE) it is supposed to let you enter SPs that are inserted before the broken-off segment as it is made into a statement. Indeed, the \*? menu shows that a SP is allowable after the bug; but a SP produces a "?" response, and I can't put leading SPs in front of the new statement.

6a13

KIRK 26-DEC-73 09:32 21187

AN ability missed with the break statement command in New NLS

Message: A feature in the old system that is missed in New NLS is the ability to insert text between broken statements. Use of something like the DFSL may return this ability to New NLS.

6a13a

It is hard enough (technically impossible) to Insert Text at the beginning of statements, but when leading invisibles are deleted for you automatically,.. In XNLS I find I am no longer capable of inserting text at the front of a new statement created by breaking from another statement. Is this a bug or a feature? (22059,) (KIRK)

6a13b

I seem to find from the \*Q HELP info that there isn't expected to be this provision, at least by the documenters. I want that provision back; in fact, I feel that one ought to be able to insert any characters after an initial SP -- i.e. that all characters after the SP (that follows the BUG LEVADJ) and before the final CA should be inserted at the head of the breakoff statement, (23142,) (DCE)

6a13c

=(23116,) (MDK) "TI" shouldn't be an alternative in the "simulate terminal" command if you're already in TI mode; similarly, "tasker" shouldn't be an alternative if you're already in tasker mode. Fixing those would remove an annoying letter conflict.

6a14

In TNLS, feedback a space after a prompt (22907,) (RLL)

6a15

RLL 6-AUG-74 20:06 23740 sug on copy file command

Location: (GJOURNAL, 23740, 1:W)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a16

When copyin file (copy file command) and one gives a new file name the statement zero in the new file is a copy of

## User Feedback Decisions leading to NLS-8,3

statement of the old file. Thus, the old file name and directory appears, this, of course, disappears when one does an update. The suggestion: perhaps it would be better to replace file name in statement zero with the new file immediately. One is not immediately sure which file you really have up.

6a16a

NDM 17-SEP-74 13:31 31067

Load Remote file command

Message: I don't see any pretense of a Load Remote command in new NLS. Some of us need that. It will be available in some form by Oct 1, won't it?????

6a17

DVN 11-JUN-74 16:05 23332

Message: If you want to use both the level adjustment and the filter in a command such as copy, you have to specify the filter first. The prompt would be a little nicer if it said [\*/]/L: rather than what it now says, L:[\*/].

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a18

JMB 3-JUL-74 17:53 23524

Suggestions for the Questionmark Facility

Location: (GJOURNAL, 23524, 1:w)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a19

Comments: wouldn't this be clearer and easy to change?

6a19a

RLL 13-SEP-74 11:07 23964 use same line for optional info in show directory command"; Author(s): Robert N. Lieberman/RLL;  
Distribution: /FDBK( [ ACTION ] ); Sub=Collections: SRI=ARC;  
Clerk: RLL;

6a20

## User Feedback Decisions leading to NLS=8,3

Please put size info when using show directory with options on sam line as name o file, otherwise it goes to o fast on the screen, same for more than one copy of same file.

6a20a

Allow an end of statement to end a sendmail form as well as <CR>. And allow <CR>s in Messages in a sendmail form.

6a21

DCE 20-AUG-74 08:51 23825  
 (^V) Before (CR) Doesn't Seem to Work in Comment Field  
 Location: (GJOURNAL, 23825, 1:w)  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a21a

In tnis if one wishes to format a comment with a carriage return it will of course terminate the comment command. One expects that if he wishes a literal carriage return he can precede the carriage return keystroke with a (^V). I tried this and it doesn't seem to work properly. The carriage return indeed does get added as a literal to the comment but the impact on nls seems to be also as though the carriage return terminates the command and readies you for a new command in the particular mode.

6a21a1

JMB 19-JUN-74 17:22 23463  
 Sendmail's Process command doesn't work as advertised  
 Message: I did insert Sendmail in Editor. As Help advises (under sendmailforms) I deleted the "DONE:" and added "MESSAGE:" in its place. I then used editing commands to type in my message and fill in the other fields. Then I used Sendmail's Process command to send the item. Show Status then revealed that it got everything but the Message; indeed, DONE had "nothing to send!" Rumor is that the message needs a carriage return after it (though DONE: doesn't) for Process to work; that seems wierd and Help doesn't say anything about that. Could the command or the advertising be cleared up?  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a21b

RLL suggestion on the show commands: always have a 'show' for a 'set'  
 12-AUG-74 10:48 (GJOURNAL, 23767, 1:w)  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a22

I would strongly urged for consistency and simplicity to have for each 'set' command a corresponding 'show' command. For example: set buffer size/show buffer size, set private/show privacy setlink default/show link default, etc.

User Feedback Decisions leading to NLS=8,3

True we hae show status but that does not sail as nicely,  
Even a show character size would be nice,

6a22a

DVN 23-MAY-74 14:09 23104  
Driven Over Allocation by Mystery Files  
Location: (GJOURNAL, 23104, 1;w)  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a23

Some of you may recall that last Friday and Monday I tried  
to send a journal item which was never delivered because of  
a confusing accumulation in the distribution field following  
several attempts to distribute,

6a23a

An sther problem seems to have arisen from that evil journal  
submission. Today the system began to tell me I was out of  
pages although Show Disc asserted that I had 25 or so pages  
to spare. Jeff discovered that the culpable pages were in  
the partial copy of my sendmail file, invisible to me.  
Presumably they had accumulated during th various submission  
attempts,

6a23b

This seems only one way in which a user could accumulate  
pages which the monitor counts against him but which neither  
show directory nor show disc status will reveal. It's a  
pretty frustrating feeling, I suggest making those files  
visisible,

6a23c

KIRK 22-SEP-74 00:34 24026  
Default name delimiters NULL NULL?  
Message; Default name delimiters were to be changed to NULL  
NULL. Has this decision been changed unknown to me or was it  
just overlooked?  
\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

6a24

RLL 12-JUL-74 08:21 23610  
add an 'OK' to sort command  
Message; strongly urge the sort command have a 'OK' confirming  
<CA>. At present, after address is given the sort takes off  
and does its thing.  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a25

KIRK 22-SEP-74 18:02 24032  
Typical cNLine Systems thinking  
Message; why aren't Output Journal and Print Journal named  
Output Sendmail and Print Sendmail?

User Feedback Decisions leading to NLS-8,3

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a26

KIRK 5-SEP-74 20:40 23922  
 NP for jump file return  
 Message: Jump to file return choice message (currently a  
 filelink) should be the complete link containing the statement  
 number and viewspecs,  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6a27

3-MAY-74 1616-PDT LEE: Sendmail subsystem, Interrogate  
 command  
 Distribution: FEEDBACK  
 Received at: 3-MAY-74 16:16:55

6a28

When it says "Send for action to" it seems you should be  
 able to  
 type ? and get a message telling you to type \*N to send  
 something  
 for information at least in DNLS,

6a28a

Large changes requested

6b

NSW shopping list Estimated Resources TOTAL 40  
 This table summarizes minimum estimates of resources required  
 for implementing the simplest approach to each task,  
 Figures are in man months, OPTIONAL TASKS:

6b1

COBOL Programmer's Interface

6b1a

Develop a special COBOL interface 3  
 which enforces structured  
 COBOL code

6b1a1

COBOL syntax checker 3

6b1a2

COBOL shorthand facility 3

6b1a3

Online COBOL program library 1

6b1a4

Spelling completion 2

6b1a5

Test data files generator 4

6b1a6

Online debugging facility 3

6b1a7

Interface for Clerical Personnel

6b1b

## User Feedback Decisions leading to NLS-8,3

Preparation and output of text	1	6b1b1
Preparation and transmission of mail	1	6b1b2
Calculator Extension	1	6b1b3
Documentation and Publication System		6b1c
Interface to other textual input systems: OCR, MTST, Etc	1	6b1c1
Additional editing functions and entities	3	6b1c2
Special applications packages	-	6b1c3
Modifications to the Output Processor	5	6b1c4
Graphics		6b1d
Simple drawings	5	6b1d1
Graphics input from other tools: 1 assumes above		6b1d2
Flow-Chart production	1 assumes above	6b1d3
JEW Proposal for a New Family of NLS Editing Commands		
23-OCT-73 12:49 (LJOURNAL, 19830, 1:w) %justifying text string lengths% (19869,) (JBN) (17867,) (RL)		6b2

## INTRODUCTION

6b2a

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

6b2a1

## MY APPLICATION, BY WAY OF EXAMPLE

6b2b

I attempt to make assembly-language programs readable both on- and off-line. I head each procedure with an

User Feedback Decisions leading to NLS-8,3

asterisk box containing a description of the procedure's function and calling sequence (for the benefit of Output Processor listings); I tucked the boxes away in the file tree structure in such a way that I can suppress them with level clipping (for the benefit of on-line viewing), 6b2b1

An example of such a box is the following: 6b2b2

```

;*****
;*****
;***
;***
;***      == SEND MAIL TO USER AT DISTANT SYSTEM
==      ***
;***
;***
;***      ASSUMES:                RETURNS:
;***
;***      a == distant user ptr +1 == unsuccessful
;***      b == local fn ptr      m == err msg str
ptr      ***
;***      +2 == successful
;***
;***
;*****
;*****

```

6b2b2a

6b2b2b

I build just one of these from scratch and then create each successive one by copying the previous one, and then 'cutting and pasting'. 6b2b3

Consider the task of replacing the string 'local fn ptr' with some other string describing the argument passed in accumulator 'b' for the new procedure whose box is being constructed. 6b2b4

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



User Feedback Decisions leading to NLS-8,3

execute the appropriate Insert or Delete Character operation to restore alignment, 6b2b4a

A much more straightforward solution would be possible with a primitive like the following: 6b2b5

R[replace] M[asured] T[ext] bug1 bug2 LIT CA 6b2b5a

whose meaning were: 6b2b6

Replace the indicated string of length LOLD with the literal of length LNEW. If LNEW > LOLD, delete the (LNEW-LOLD) characters which follow the new string. If LNEW < LOLD, insert (LOLD-LNEW) SPs following the new string. 6b2b6a

SOME EDITING COMMANDS PROPOSED 6b2c

CONVENTION 6b2c1

The entity Text is used for simplicity in the examples below, but note that the entities: 6b2c1a

- Word
Visible
Link
Number
Character (this last one isn't very exciting) 6b2c1a1

would also make sense. 6b2c1b

[I don't know what to do with invisible.] 6b2c1b1

REPLACING MEASURED TEXT STRINGS 6b2c2

R[replace] M[asured] T[ext] bug1 bug2 LIT CA 6b2c2a

This operation would replace the indicated string of length LOLD with the literal of length LNEW. In addition, if LOLD differed from LNEW: 6b2c2b

If LNEW > LOLD, the (LNEW-LOLD) characters which followed the indicated string would be deleted, or 6b2c2b1

If LNEW < LOLD, (LOLD-LNEW) SPs would be inserted following the new string. 6b2c2b2

TRANSPOSING MEASURED TEXT STRINGS 6b2c3

User Feedback Decisions leading to NLS=8,3

T[ranspose] M[easured] T[ext] bug1 bug2 bug3 bug4 CA 6b2c3a

This operation would interchange the indicated strings of lengths L1 and L2, respectively. In addition, if L1 differed from L2: 6b2c3b

The  $|L1-L2|$  (i.e., the absolute value of  $L1-L2$ ) characters which followed the longer string in its new location would be deleted, and 6b2c3b1

$|L1-L2|$  SPs would be inserted following the shorter string in its new location. 6b2c3b2

INSERTING MEASURED TEXT STRINGS 6b2c4

I[nsert] M[easured] T[ext] bug1 LIT CA 6b2c4a

This operation would insert a copy of the literal of length L at the indicated destination. But first: 6b2c4b

L characters at the destination would be deleted. 6b2c4b1

The operation would therefore effectively overlay a section of text at the destination with the literal. 6b2c4c

COPYING MEASURED TEXT STRINGS 6b2c5

C[opy] M[easured] T[ext] bug1 bug2 [to] bug3 CA 6b2c5a

This operation would insert a copy the specified text string of length L at the indicated destination. But first: 6b2c5b

L characters at the destination would be deleted. 6b2c5b1

The operation would therefore effectively overlay a section of text at the destination with the specified text string. 6b2c5c

DELETING MEASURED TEXT STRINGS 6b2c6

D[etele] M[easured] T[ext] bug1 bug2 CA 6b2c6a

This operation would (quite intuitively, I think) replace the indicated text string of length L with L blanks. 6b2c6b

The operation would therefore effectively blank a section of text. 6b2c6c

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

6b2c6c1

## MOVING MEASURED TEXT STRINGS

6b2c7

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

6b2c7a

This operation would be equivalent to:

6b2c7b

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

6b2c7b1

D[elete] M[easured] T[ext] bug1 bug2 CA

6b2c7b2

A Break Branch command should work differently from the break statement command. It should put the original substructure under the new statement instead of under the original statement.

6b3

Break Group and Break Plex commands should break at every <EOL> in statements at the current level ignoring substructure and viewspecs.

6b4

JAKE Column manipulation  
13-SEP-73 11:29 19059

6b5

RLL re: new text string = remarks &remarks that wouldn't appear when file is printed = alternate to 19557)%  
15-NOV-73 08:27 (IJOURNAL, 20258, 1:w)

6b6

re: intra-statement remarks = suggestion

6b6a

I suggest that a special intra-statement text string be implemented, called remarks. This string would be delimited by special characters, default for example being % (percent signs). This delimiter could be changed in a fashion similar to statement name delimiters.

6b6a1

The purpose of 'remarks' is to allow intra-statement text that is completely ignored in the nls print command or the output processor (by means of a switch for nls and a new directive for the output processor). This will enable the user to put comments or remarks or notes at places in the statement where they apply. This suggestion stems from the typical way people read

User Feedback Decisions leading to NLS=8,3

documents, also, this concept can be used in creating papers, the remarks would be used by the various authors, editors, or typists to communicate suggestions, alternative text, or missing text,

6b6a2

the command i[insert] r[remarks] [at a:] addr ca [t:] would insert the specified text after the given address and enclose the text with the , in effect, delimiters, the commands delete remarks, move remarks, copy remarks would have the obvious results,

6b6a3

two options are possible- the remarks text for computation of addresses could be a) ignored or b) not ignored, at the moment i am not sure which would be better, perhaps it should be related to the printing option, that is, if remarks printing is desired then all addresses would take in consideration the remarks text and if no remarks printing is desired then the addresses would be computed as if the remarks text was not there, clearly this might cause some confusion and i can conceive that such an option would be difficult to implement,

6b6a4

this suggestion is an alternative to the margin notes suggestion made early, possibly both might be desirable,

6b6a5

i would like comments on both this suggestion and the margin notes suggestion, (see nic document (kjjournal,19557,) for margin notes suggestion) robert lieberman (rll) (nsrdc@sri=arc)

6b6a6

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User Feedback Decisions leading to NLS-8.3

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6b6b6

RLL margin note addition to nls &non=Printing remarks&  
8-OCT-73 18:09 (KJOURNAL, 19557, 1:w)

6b7

(tojournal)

6b7a

i suggest a margin note part of a statement, this would act as marginal notes for the specified statement, there would be an option of printing these notes or not printing them, they would be inserted with a special insert statement or through a special address reference (e.g. m.1a2 to mean the margin of .1a2). all editing (change, replace, delete, etc) will not (repeat not) effect any change in the address referencing of the text body itself (so one does not need to know what is in the margin for referencing), in a very real sense the margin will act as a separate file with identical statement structure, this could be simulated in display nls by splitting your screen in two, but the advantages of having it within the same file as the text body seems to

User Feedback Decisions leading to NLS-8,3

me wooth it, of course typewriter nls would have no  
 ohter choice, 6b7a1

the motivation for this suggestion stems from the desire  
 to have all the advvantages of the hardCopy environemtn  
 incorporated into nls 6b7a2

robert liebermaa nsrdc (rll) 6b7a3

MDK A suggestion on NLS File Structure, with Application to  
 Back-Links and Output processor Directives  
 27-NOV-73 10:36 (IJOURNAL, 20574, 1:w)

6b8

## MOTIVATION

6b8a

This brief note has been motivated in part by discussions  
 with Charles P. Bourne, Kjell Samuelson, and Pauline  
 Atherton, during their recent visit to ARC. These three  
 members of ASIS were interested in NLS, especially from  
 the standpoint of dialogue and reference support. They  
 were concerned that we had not implemented any solution  
 to the problem we at ARC have referred to as  
 "back-links",

6b8a1

Consequently, I've been thinking about the problem again,  
 and I want to share what I believe to be a useful scheme  
 for organizing and storing back-link and similar  
 information for files. The scheme is intended to make it  
 practicable that

6b8a2

a) the back-link and other similar information be  
 automatically displayed at the time a file is read,  
 but

6b8a2a

b) the original file remains unchanged,

6b8a2b

In addition to being applicable to Journal files, the  
 scheme also should be applicable to an unrelated problem  
 associated with use of the Output Processor. These two  
 applications are described in this note, after a sketch  
 of the general scheme is given.

6b8a3

## SCHEME

6b8b

The scheme is an extension of the "partial copy" concept,  
 and has these attributes:

6b8b1

## User Feedback Decisions leading to NLS-8.3

There should be a new file type (or at least a new distinct subset of existing NLS files), which for want of a better name I am suggesting we call a "quasi" partial copy (QPC) --- namely a file which has some but not all the attributes of partial copies, 6b8b2

The QPC of a file F would not normally be visible separately from F; the QPC's contents would normally be seen only when "merged" with those of F at the time a viewer looks at F. (Here of course the QPC shares a very important attribute of ordinary PC's, namely that it is intimately tied to the structure of the parent file F.) 6b8b3

The QPC would have its own PC, in order to allow someone to make modifications to the QPC while others are viewing F + PC + QPC. (Here the QPC has some of the attributes of an ordinary NLS file,) 6b8b4

Three new mutually exclusive viewspecs are recommended: 6b8b5

capital X: show F together with its QPC (this would be the default viewspec) 6b8b5a

capital Y: show F but not F's QPC 6b8b5b

capital Z: show F's QPC but not F 6b8b5c

When updating F the contents of F's QPC (and of the QPC's PC) would be IGNORED by NLS. (This is the crucial distinction between a PC and a QPC,) 6b8b6

Update File QPC and Output File QPC would be possible only when viewspec Z is on, 6b8b7

Implementation of the QPC concept would have to be compatible with BSYS (especially the Archive System), 6b8b8

#### JOURNAL SYSTEM APPLICATION 6b8c

For Journal files, the main goal of introducing the QPC concept is to be able to preserve back-links and notes that are made to a Journal file, and to be able to see them at the time that Journal file is read, 6b8c1

These back-links and notes would be stored in the Journal file's QPC, and so would be visible to the user; but they would not alter the contents of the original Journal file, 6b8c2

## User Feedback Decisions leading to NLS=8.3

The QPC of a Journal file F would therefore have four main purposes:

6b8c3

- to hold links back to other Journal files that "obsolete" F,

6b8c3a

These links would automatically be stored in a separate branch of the QPC when the Journal subcommand "obsolete" was used,

6b8c3a1

- to hold links back to other Journal files that "update" F,

6b8c3b

These links would automatically be stored in a separate branch of the QPC when the Journal subcommand "update" was used,

6b8c3b1

- to hold links back to other Journal files that "cite" F,

6b8c3c

These links would automatically be stored in a separate branch of the QPC when the Journal system discovers a link to F in the origin statement of a different Journal file, G,

6b8c3c1

- to hold notes that are placed there (in a "NOTES" branch of the QPC) by what I propose be a new Journal system subcommand, "submit note",

6b8c3d

"submit note" would be similar to submit message or submit statement, in that only one statement's worth of note would be allowed. But instead of creating a separate Journal item for the note that is submitted, the submit note subcommand would append the note to the "NOTES" branch of the QPC of F,

6b8c3d1

The submit note subcommand could also (if thought desirable) cause a footnote indication to be made in the QPC at the statement the note refers to, so that the reader of F would be aware of the note when reading the relevant statement in F.

6b8c3d1a

If a viewer wanted to see just the original Journal file F, he need only jump to it with viewspec Y on, or turn Y on while viewing F,

6b8c4

If user A was submitting a Journal item which caused



User Feedback Decisions leading to NLS-8,3

modification to F's QPC while viewer B was looking at F, then the modifications caused by viewer A would be stored in the QPC's PC (i.e., the QPC would be locked). The QPC would be updated by a background process (before or during archiving), and viewer B would not be able to see the modifications until after that update had taken place.

6b8c5

#### OUTPUT PROCESSOR APPLICATION

6b8d

For the Output Processor, the main goals are

6b8d1

1) to permanently remove the directives from the text, thereby making it possible to view a file on-line without seeing the directives, and without having to invoke a process that scans for and deletes the directives.

6b8d1a

2) to remove what I perceive as one barrier to certain types of further development of the Output Processor, the barrier being that the O.P. doesn't know at once where all the directives are embedded, and it must always look for them (a time-consuming process).

6b8d1b

To achieve these goals through the QPC scheme, we would need a new noun (the word "directive" seems obvious) in the text editing commands. Then the commands insert directive, copy directive, substitute directive, etc., would all do their thing in the QPC, without changing the original file F at all. That is, each directive that is inserted, moved, copied, etc by a user would exist in the QPC (where it would be explicitly or implicitly coupled to a DAE) and would be manipulated by NLS in the QPC.

6b8d2

The display generator and output quickprint would be able to ignore directives and not display them, simply by use of viewspec "Y" (show F but not its QPC). But the option to see the directives would be available with viewspec "X" (show F and its QPC).

6b8d3

The Output Processor would (in principle, at least) be able to run much faster. It would read the QPC separately from the parent file F, so that it had a kind of "road-map" to the directives, and could handle statements without having to scan them to find the directives. I think this would open up new possibilities for directives, and especially for human engineering of the whole O.P. concept.

6b8d4

User Feedback Decisions leading to NLS=8,3

LPD 23-JUN-73 12:34 17430 Message:

I think the following facility might be of considerable value in the increasing applications of NLS to retrieve data from resource files: the possibility of jumping to a name that was not spelled quite right, i.e., allowing a modest number of missing or doubled characters, transpositions, or wrong characters. Warren Teitelman's LISP system has this ability -- in fact, it invokes it automatically if it fails to find an exact match -- and it is an enormous help.

6b9

Programming

6b10

JEW 31-JAN-74 17:01 21704  
LOCAL STRING watchamacallit [Idunkno]  
Location: (GJOURNAL, 21704, 1:W)

6b10a

Wouldn't it be nice if one could declare a maximum string length with a declared symbol, in addition to with a self-defining term. Then such length dependencies would be explicit, and changeable by simply redefining the symbol and recompiling the affected files.

6b10a1

JEW A SEAS Idea, Offered with No Expectations &new NDDT%  
22-JAN-74 12:58 (GJOURNAL, 21560, 1:W)

6b10b

JCN Response to JI Proposed NLS Features: Meta nls and Output  
Nls (20028,) and (20027,) &supportts%  
3-NOV-73 09:01 (LJOURNAL, 20031, 1:W)

6b11

Jean: Thanks very much for your recent NLS feature suggestions/proposals (20027,) and (20028,).

6b11a

They are features that have real promise and I'm sure our Development staff (RWW, CHI, NDM,...) will give them serious consideration. The Meta NLS ideas are along the same lines as what we used to call executable text (but go farther than what we built for the XDS 940). We did have the feature where users could string out a series of NLS commands in statements,...with loops, command accept redefinition, etc,... to perform many higher-level NLS operations.

6b11b

With the changeover to the PDP-10 and the availability of L10 to users, we decided not to re-implement executable text features, feeling that the L10 features would provide much more power,...and easier debugging features, BUT we have

User Feedback Decisions leading to NLS=8,3

never got around to making the interface and, say, NLS-based subsystem (?) that really permits users to take advantage of such user-programs. Your thinking is right on,,,and I'm sure will prove quite helpful as an encouragement/stimulus and as a set of user-feature initial specs.

6b11c

My first reaction to the specific set of commands/features you suggest is that those are just the set I'd like as a user.

6b11d

I particularly like the way you picked out potentially interested/involved users and developers and NP in your Journal message sending,, a good use of the message-directing capabilities,,, now what we need is time and energy to do something about these things,,,I'll sure support it.

6b11e

I'm quite sure Doug will be heartened by the reappearance of some support for meta NLS stuff. Oh, I also like the idea of getting a file that looks like what the hardcopy does after output processing. I'll be interested in what Dean Meyer thinks about that. As a lower-level idea and not an answer to your suggestion,,, I assume you do know about the user-program DELDIR? It strips out directives in a document,,,there may be times when it would help to get documents eadable online after hardcopy processing. but surely not the useful idea you propose.

6b11f

Thanks again, Jean I'll be watching along with you to see how this develops. Jim

6b11g

JI G[oto] M[eta] N[ls] %repetitive tasks%  
3-NOV-73 03:57 (LJOURNAL, 20028, 1:w)

6b12

(ndm)

6b12a

The purpose of this note is to invite attention to a concept which I believe has much merit relative to augmenting NLS to render it more useful to many network users. The concept is for the development of an NLS subsystem wherein the user could define and label for subsequent re-use, a process consisting of multiple NLS command executions. Specifically, what is proposed is a User Meta NLS Language. A brief background, description, and discussion are provided in the following:

6b12a1

## User Feedback Decisions leading to NLS=8.3

Background: As a network NLS user, I have found that increasing sophistication in the use of NLS requires that I allocate a reasonable amount of time restructuring past work to reflect increased knowledge of NLS. Examples include restructuring files to conserve disk space through the elimination of NLS overhead, restructuring files to make them also easily viewable through NIC Query, etc. Further, in the conduct of day to day activities, there are many repetitive processes that are effected, where the command sequences are the same, but the files on which they are performed may change. And finally, often I find use of assorted user-progs highly desirable; in some instances they exist, in other instances they do not. Often, one exists which if augmented with another, enable me to do what it is that I desire. In dialog with other NLS users, the opinion was formed that these attributes have an underlying commonality with other NLS usage. Thus, the evolution of the following concept. No pretense at concept completeness is made; the purpose of this note is to propose the concept and subject it to your critical review and consideration, and if found meritorious, to serve as a stimulant to on-going dialog directed at its evolution to a useful NLS augmentation.

6b12a1a

Description: The primitives of G[oto] M[eta] N[is] are partially characterized by the following:

6b12a1b

D[efine] P[rocess] (name) user=name

6b12a1b1

This command would enable the user to execute any sequence of NLS commands and have the sequence of commands "packaged" into a named process wherein upon re-execution, all references to specific files, etc., would be generalized such that the user would be required to re-specify the files as they were required. Two modes are envisioned: (1) a process could be defined for dynamic execution; in which case the user would be required to submit file names as they are required, and (2) a process could be defined for deferred execution; in which case the user would be required to specify all files during specification for process execution - this will be discussed more fully in the

following.

6b12a1b1a

E[xecute] D[efeered] P[rocess] (name)

6b12a1b2

This command would allow the user to specify required parameters for a predefined process and request its execution on a deferred basis; that is, the "job" would be queued for deferred execution.

6b12a1b2a

E[xecute] P[rocess] (name)

6b12a1b3

This command would initiate a user defined process.

6b12a1b3a

S[how] U[ser-progs]

6b12a1b4

This command would cause the system to provide the user an index to all included user-progs (as distinguished from named-processes previously defined by the user) wherein each index term would include the name of the user-prog, a mini-description of its function, and its authors ident.

6b12a1b4a

D[escribe] U[ser-prog]

6b12a1b5

This command would provide a detailed description of a specified user-prog including an example of its use.

6b12a1b5a

I[nsert] U[ser-prog]

6b12a1b6

This command would allow a user to augment the user prog library with a user program of his construct. The insertion would result in a system initiated dialog with the submitor to ensure that he supplies all required information for his submission. The entire content of his

User Feedback Decisions leading to NLS-8,3

submission would result in its being placed in a queue for subsequent examination by an NLS/L10 expert who would certify it for inclusion. Any problems found with the submission would result in a journal item being submitted to the user; otherwise, if the submission were found to be adequate, it would be included into the user-program library and the user so notified.

6b12a1b6a

S[how] C[ommands]

6b12a1b7

This command would provide the user a list of his prespecified processes. Note that these prespecified processes constitute a user specific library which should most probably be maintained as a specific branch in the users initial file.

6b12a1b7a

Discussion: The above are only a few of the commands envisioned, but should suffice to give a good idea of the concept. The benefits I envision from such a capability include:

6b12a1c

An extensible user-program data base under NLS management and easily available and useable to users.

6b12a1c1

The ability for users to define, label, and re-execute repetitive processes.

6b12a1c2

The user ability to significantly augment NLS to his specific usage environment.

6b12a1c3

And many others.

6b12a1c4

References: NIC #20009, 20025, and 20027

6b12a1d

I would appreciate your thoughts on this suggestion, and look forward to an on-going dialog.....Jean

6b12a1e

User Feedback Decisions leading to NLS=8,3

JI O[utput] N[is] %to get rid of OP directives%  
2-NOV-73 23:41 (LJOURNAL, 20027, 1:w)

6b13

(rww)

6b13a

In collaborative work for the ARPANET Newsletter, it is frequently the case that an article submission is made wherein the submitor has taken great care to embed the appropriate output processor directives. This is especially useful when the article is subsequently journalized and distributed seperately. However, this type of submission does create a problem in eliminating the output processor directives and reformatting the article to make it useful for the on-line version of the newsletter which is also viewable through the NIC Query language. Other instances of such a scenario can be frequently cited. The purpose of this note is to invite your attention to the following suggested NLS augmentation.

6b13a1

Background References: NIC #20009 2 Nov 73 [jil], and  
NIC #20025 2 Nov 73 [dnc]

6b13a1a

Suggestion: Create a new NLS command, O[utput] N[is], which would process an NLS file with embedded Output Processor directives and transform it to an NLS file without Output Processor directives BUT, where the directives had taken effect. Several suboptions may be desirable: (1) to assure that all transformed statements are at the same plex [for compatibility with NIC Query], and (2) leave transformed statements at the same levels as their original occurrence.

6b13a1b

Discussion: At the present time, the only way I have of effecting this is through the use of a hack wherein I telnet to NIC, Output Processor the subject file, edit the file into a TENEX file through the use of telnet, typescript, re-insert the file through E[xecute] I[nsert] S[quential], then use the user-program "append" to minimize multi-statement NLS overhead. Clearly, this "HACK" leaves a lot to be desired in terms of efficiency.

6b13a1c

User Feedback Decisions leading to NLS-8,3

I strongly recommend you give this recommendation your most serious consideration, I believe the ensuing NLS command would have appreciable utility to your user community. Thanks,.....Jean

6b13a2

DHC 21-JUN-73 16:26 17412  
Auto-updating as option in Load File or Logout

6b14

JCN NP Item: Typescript File Command in NLS or EXEC  
24-SEP-73 08:39 19264 Message:

Here is a request for consideration of a new feature: a command either at the exec level or in nls that makes the system record what the user types and what the system sends back to him in a file for future use by the user. I have found (as have others) tht use of the telnet, typescript file for making scenarios and for capturing other data is very useful. It means going out via telnet and re-entering the ARC system (or some other) to set up the typescript file. This seems wasteful of network facilities and adds unwanted steps in the process. I'm not sre what difficulties adding such a feature would entail, but offer this sggestion here to get some discussion started.

%WAS THERE ANY%

6b15

Output Processor

6b16

MDK Output Processing: A Suggestion for How to Improve the Speed %output printfile - looks for directives only in origin statement%  
9-FEB-73 16:36 (IJOURNAL, 14367, 1:w)

6b16a

JBN Request for OP Directive Preventing Substatement Page Breaks

1-JUL-73 20:07 17590 Message:

CHI == For the Directory, as well as for production of formatted reports, there is urgent need for an Output Processor directive to produce page breaks at statements of a certain level only. This is not the directive to produce page breaks at specified levels at each occurrence, but one to insure that page breaks are not made at substatements when this is not desired, and the whole branch should be carried to the next page. I have asked for this before, and perhaps there is some reason it cannot be done? == Jeanne also (14342,) (JBN)

6b16b

RLI output processor suggestion re: time zones



## User Feedback Decisions leading to NLS-8.3

8-NOV-73 11:49 20109 Message:

the time zone would be very nice to append to the commands 'gdt' and 'gt', one letter would do, namely, e = eastern, c=central, m=mountaan, p= pacific, daylight vs standard time should not be a problem, clearly we have another set of commands now possible, 'gdte', 'gdte', 'gdte', and 'gdtp', (also for 'gt,') 'gt' and 'gdt' would always append 'p' unless the new commands are included in the system, robert (20799,) (NDM)

6b16c

DHC 7-MAY-74 13:29 30705

Sweeping Journal Directive %alternative to (16047,)%

Directive will contain any directive to be executed at a given level.,

6b16d

DHC Output Processor suggestions

27-AUG-73 11:48 18678 Message:

In order to make processed output better fit the device it is being printed on (or formatted for) I suggest the following:

6b16e

1. Have the Output Processor (during Output device Teletype) use the Terminal specs (line width, page size, form feed, etc) as limits, which embedded directives CANNOT exceed,

6b16e1

2. Allow run-time specified directives. The author of a file has certain formatting ideas. The printer of the file may want something different. The printer's directives should take precedence. This saves the printer from having to copy the file and change embedded directives,

6b16e2

3. Allow the concatenation of files, at run time. This, too, saves having to do copying,

6b16e3

KIRK ignore Plex directive.

18-NOV-73 11:23 20356 Message:

I need an Ignore Plex (IGP) directive (like IGB, IGS, etc.).

6b16f

RLL for output processor : new command 'GrabS'

5-OCT-73 10:20 19525 Message:

a suggestion for the output processor, the command 'Grab' serves a useful function for lines; why not have a similar command (GrabS') for statements. One often does nto knwo how many lines will be in a statement but a header statement such as a chapter title will be followed by another

User Feedback Decisions leading to NLS-8,3

- statement, r. lieberman of nsrdc 6b16g
- TTY window OFF allowing 2 more lines of text if desired, (22061,) (KIRK) 6b17
- command feedback OFF allowing 4 more lines of text if all you are doing is jumping and reading, (22061,) (KIRK) 6b18
- These require CML re-write 6b19
- 3-JUL-74 1355-PDT LEAVITT: bug  
 Distribution: FEEDBACK  
 Received at: 3-JUL-74 13:55:15 6b19a
- When I use the output quickprint and output printer commands in tnls, there is echoed, or printed, an extre "OK:", so one would see:  
 Output C: Quickprint OK/C: OK:  
 If I give a command accept after the C and ignore the second OK, the process gets completed fine. But if I pay attention to the second OK and give another CA, the bell rings. I have learned to ognore the second OK but other particularly new users may be confused by it, so why not get rid of it. 6b19a1
- line entiti.  
 If we eliminated LINK as a command word as proposed in (JJOURNAL, 22236, 1:w) there would be no conflict. 6b20
- Filters should obey line clipping viewspecs. 6b20a
- DCE Re-implementing DNLS Line entity  
 9-OCT-73 12:17 (KJOURNAL, 19580, 1:w) 6b20b
- DVN For Lines and Arrays  
 10-OCT-73 09:00 19590 Message:  
 I second Doug's motion (kjournal,19580,). see also my argument for Matrices (journal,16245,) 6b20b1
- Transpose window Command, 6b21
- Journal 6b22
- CHI 20-JAN-73 20:07 14006  
 Proposed EXEC level capabilities: Journal Submission and Printing

## User Feedback Decisions leading to NLS=8,3

Message: I recommend the addition of two more entry points into NLS, one for Journal submission and one for Print Journal. I recommend that a new EXEC command be created, say JOURNAL, such that there is are two subcommands, one for submitting a message and one for printing Your Journal mail. The default for not specifying which submode should be submission, I think. Also, the Print Journal function should be slightly modified so that it marks the statements it has already typed -- so that repeated use of the command will result in only new material being typed. NOTE: If we can fit this into SNDMSG and MESSAGE, all the better. -- Charles

6b22a

DHC Statement Names for Journal Mail

12-JUL-73 16:38 17774 Message:

It just occurred to me that it would be very nice to have online Journal mail have the Journal number as the Statement name. What are the arguments against such an action and how hard would it be to implement??

--Dave

6b22b

JBN Request for Journal feedback Line to Show Lack of Title

Please consider having the Status block presented to the Journal sender include the line

3-AUG-73 08:32 18200 Message: Message:

[no title]

to prompt the sender that one has not been supplied and that it is a normal part of the submission. -- Jeanne N

6b22c

JEW 25-FEB-74 16:09 22048

Secondary Distribution BUG?

Message: Dave-- Apparent bug in Secondary Distribution. The following message accompanies the delivered citation:

'Secondary Distribution Copy from XXX'. Note the incorrent ident (I assume). Background's? --Jim

6b22d

DCE 7-MAR-74 17:55 22352

At least one Journal item is not indexed

Location: (JJOURNAL, 22352, 1:w)

6b22e

JBN Request for proper RFC journal format.

6-JUL-73 21:12 (KJOURNAL, 17694, 1:w)

6b22f

## User Feedback Decisions leading to NLS-8,3

JBN Resubmitted Reply to WLB re Journal Headers  
 20-APR-73 08:28 (MJOURNAL,16031,1:w)  
 \*\*\*\*\*Note: (Secondary Distribution Copy)\*\*\*\*\*  
 6b22g

MCK Journal Complaint  
 4-JUL-73 06:29 (KJOURNAL, 17631, 1:w)  
 %default output directives should be by choice or better  
 advertised% (15469,) (WLB = also speed up ident check)  
 6b22h

CHI \* BACKLINKS in the Journal  
 15-NOV-72 21:37 (LJOURNAL, 12866, 1:w)  
 6b22i

MDK \* Annotating Journal Files with Footnotes  
 19-OCT-72 9:33 (LJOURNAL, 12329, 1:w)  
 6b22j

MDK MINOR SUGGESTIONS re the Journal.  
 6-MAR-73 9:07 (IJOURNAL, 14915, 1:w)  
 %citation format, default viewspecs, status command% %allow  
 other viewspecs & statement nos. (19425,) (JMB)%  
 6b22k

MCK Comment on "Distribute Document"  
 4-DEC-73 10:04 (IJOURNAL, 20702, 1:w)  
 %DD for offline doc = message "Document is not online" or  
 notify NIC person to manually DD%  
 6b22l

JEW Identifying Exactly WHAT File is Not On-Line  
 %change message to specify what directory a journal file is  
 in; ability to interrogate journal catalogs%2-OCT-73 12:19  
 (JJOURNAL, 19414, 1:w)  
 6b22m

JEW How About "RFC-524" Instead of "17140"?  
 25-JUL-73 16:50 (LJOURNAL, 18011, 1:w)  
 6b22n

DCE On Journal-item Citation Naming; cf. (18011,),  
 (18036,) and (18063,)  
 31-JUL-73 09:17 (LJOURNAL, 18132, 1:w) %opposes%  
 6b22n1

MDK On Changing Journal File Naming Convention  
 27-JUL-73 08:56 18036 %supports%  
 6b22n2

User Feedback Decisions leading to NLS=8,3

JEW some Dialog Support Ideas for the Next Couple Years  
20-FEB-74 15:50 (HJOURNAL, 22002, 1:w)

6b220

Ideas (not fully developed) for Dialog Support  
development over a couple=year period.

6b2201

JOURNAL AND IDENT SYSTEM RE=WRITE

6b2202

Absolutely the most important item on the list!! If  
this project doesn't get top priority, we will one  
day -- sooner or later -- see the world come crashing  
down upon us!

6b2202a

Should assume a multi=host environment as we've  
discussed and partially designed, with well defined  
modules -- cataloger, archiver, recorder, publisher,  
registrar, etc, -- distributed and replicated  
throughout the Net.

6b2202b

Flexible access controls are to be built in from the  
start.

6b2202c

This topic has been labeled 'Multi-Site Journal  
System', but it's important to realize that the Ident  
system (i.e., its replacement) is intimately involved --  
it's probably the most important and complicated of  
all the modules, in my view of the world.

6b2202d

BACKGROUND NETWORK JOURNAL SUBMISSION AND NLS FILE  
RETRIEVAL

6b2203

It turns out that there's too much overhead associated  
with submitting a Journal article or formatting,  
converting, and retrieving an NLS file to require that  
it happen in-line with the Network request that  
initiates it.

6b2203a

I therefore suggest that we create a background  
process running NLS to respond to such requests,  
interfaced to the outside world via the mail system.  
That is, permit a user to submit a journal article or  
request a copy of a specified NLS file, formatted in a  
particular way (e.g., via the Output Processor) by  
sending an appropriate message via Network mail to  
JOURNAL@NIC. The message would specify a Network  
return addr to which the background process would make  
reply, and, for the case of file retrieval, the host

## User Feedback Decisions leading to NLS-8,3

and filename (along with login parameters) where the file is to be sent.

6b2203b

Journal submission by this mechanism would provide full flexibility with regard to specification of comments, preassigned catalog numbers, RFC numbers, etc.

6b2203b1

## JOURNALIZATION OF SEQUENTIAL FILES

6b2204

We've long been aware that many journalized documents originate as sequential files. We've long been aware of the difficulty of converting sequential files to tree-structured ones in a reasonable way. Although I know that much more work can be done in the area of defining and implementing a variety of clever conversion routines, I believe that that's not the real answer to the problem. In general, you don't make a guy, who's spent time and effort formatting his file, happy by massaging it -- by ANY program (programs don't come that clever).

6b2204a

I suggest that we permit sequential files to be journalized (and stored as such), just as there are handles for journalizing hardcopy documents.

6b2204b

## PERSONAL MAIL-MANAGEMENT SUBSYSTEM IN NLS

6b2205

No work has been done by us in this area. We need an equivalent of READMAIL, but presumably even more powerful.

6b2205a

## DRAFTS, COMMENTS, AND ACKNOWLEDGMENTS

6b2206

Formalize the notion of drafts, comments, and acknowledgments, so the journal can make decisions (e.g., about routing) on the basis of whether or not a document has been acknowledged by certain individuals, etc.

6b2206a

## GENERALIZED ROUTING FOR JOURNAL DELIVERY

6b2207

We can, I think, give the user a great deal of flexibility about the routing of a document to the people in its distribution list (I would expect sequential, and, of course, the current parallel delivery to fall out of this).

6b2207a

## User Feedback Decisions leading to NLS-8.3

A distribution list would, in the general case, be more complicated than it currently is. For example: 6b22o7b

Distribution: (CHI JDH DCW) then (RWW or 25-FEB SPM) then ack JEW 6b22o7b1

meaning: 6b22o7c

Distribute in parallel to CHI, JDH, and DCW; when and if positively acknowledged by all of them, send to RWW. Then send finally to JEW, either when RWW has acknowledged or by 5 pm, Feb 25, whichever comes sooner. 6b22o7c1

Both the syntax and example are contrived, and more constructs could be defined, but the idea, I think, is clear. 6b22o7d

DELIVERY OF NETWORK MAIL TO INITIAL FILES 6b22o8

MESSAGE.TXT files can be eliminated for those NLS users who desire it. All network mail sent to them would be reformatted and placed in their initial file, like journal mail. 6b22o8a

SNDSMSG SUBSTITUTE IN NLS %DONE% 6b22o9

I've 90% completed an NLS command which replaces SNDSMSG, in that it does exactly the same thing as SNDSMSG (in terms of the mode of mail delivery), but operates on NLS files and allows both 'User@host' and ident forms for addressees. 6b22o9a

GENERALIZED JOURNAL ADDRESSES IN THE IDENTFILE 6b22o10

Instead of the current hardcopy, on-line, and network mailbox address, permit each user to maintain N such mailboxes. Each would be of one of those three types, and each would admit only mail which met certain criteria, e.g.: 6b22o10a

Authored by one of a specified list of users. 6b22o10a1

Meeting certain specified size constraints. 6b22o10a2

Containing specified keywords in the title. 6b22o10a3

Etc. 6b22o10a4

## User Feedback Decisions leading to NLS-8.3

## PROMPTING MECHANISMS

6b22011

Allow the user to be notified (at login, or if already logged in, by NOTIFY) when, e.g.:

6b22011a

mmail arrived at a particular mailbox.

6b22011a1

On a pre-specified date and time of day, with a specified message.

6b22011a2

Etc.

6b22011a3

## VIEWING WHAT'S BEEN CHANGED IN A FILE

6b22012

Provide the ability for a user to visibly distinguish on his screen between a file and the changes contained in its partial copy (with underlining, italics, or whatever, perhaps under user control). Allow a file to be viewed through any of several PCs.

6b22012a

This, to my mind, is the way to implement (at least one form of) comments on a journal document. A user could then send a draft to N other users for review, each of whom would create his own partial copy for the file, and return it via the journal to the originating user, who could then view the N partial copies against the original file, and produce a final copy.

6b22012b

## AUTOMATIC GARBAGE COLLECTING OF INITIAL FILES

6b22013

Allow the user, via the identfile or his profile, to specify a garbage collecting algorithm for his initial file, involving parameters like:

6b22013a

Time it has sat in the file.

6b22013a1

Who it's authored by (e.g., "Discard after 30 days anything not authored by RWW or JCN").

6b22013a2

Etc.

6b22013a3

## UNRECORDED MAIL %DONE%

6b22014

No definition required. (17497,) (DHC)

6b22014a

## JI Distribution Groups

4-NOV-73 11:48 20038 The suggestion is for a capability comparable to the "B" option in TENEX sndmsg where I would be able to insert a branch for the distribution in the journal



User Feedback Decisions leading to NLS=8.3

mail system,

6b22p

DHC 22-JUN-73 17:54 17426

Author Control of Distribution Media for Journal Mail

6b22q

AT DELIVERY TIME, I SHOULD BE ABLE TO SAY MEDIUM HARD, ONLINE AND IF THE PERSON HAS ONLY ONLINE TURNED ON, BUT HASN'T SAID 'NEVER' FOR HARDCOPY, HE WILL GET A HARDCOPY (THO HE WOULDN'T, NORMALLY).

6b22q1

LPD Don't like current Net Journal distribution  
19-AUG-73 00:29 18495 Message:

I disapprove of the current Net Journal Distribution procedure. The TENEX READMAIL facility is a far less convenient form in which to maintain a permanent record of Journal items addressed to me than my Initials file at ARC. The overhead of transferring such notices to a permanent file is also odious. Until and unless the NIC can make a subsystem (such as NLS) available to aid in this process, I would like my Journal items delivered BOTH to my "home" host and to my NIC Initials file. If it is impossible to do both, I would prefer the latter to the former.

6b22r

JEW smaller Separator in Print Journal  
26-APR-73 13:50 16210 Message:

To whoever is messing around with 'Print Journal' these days (is it Chuck?), Dave Crocker suggests in (15477,) that the separator be reduced from three to one line. Makes sense.

6b22s

DCE NP for SNDMSG, User Program INMES, and round-trip conversion between NLS and sequential files  
17-OCT-73 17:35 (LJOURNAL, 19746, 1:W)

6b22t

comments: Time for more dialogue re improved facilities for NLS support of composing, sending, and managing SNDMSG traffic?

6b22t1

KIRK quit command

30-JAN-74 10:09 21677 Message:

In being consistent with the subsystems and novice user naivete, there should be a quit Tenex command in NLS that would take you out to your higher level. Your higher level would be telnet, a superior NLS, or Logout. There should also be a quit

User Feedback Decisions leading to NLS=8,3

job command which would equal the Logout command,

6b23

DIA 8-APR-74 14:29 22662  
 Viewspec suggestions for NLS  
 Location: (LJOURNAL, 22662, 1:w)

6b24

Let viewspec questionmark display the viewspecs when you  
 want to see them, (KIRK)

6b24a

limit display if viewspecs,

6b24b

This would be a user profile parameter that would control  
 the display of viewspecs. The effect would be that  
 viewspecs would not be displayed unless they were  
 DIFFERENT than a specified set of viewspecs. The result  
 would be that the viewspec area would be empty unless  
 there was something unusual == which the user would like  
 to be aware of,

6b24b1

I find myself paying little attention to the viewspecs  
 anyway, except when I have some 'special' (unusual for  
 me) setting,

6b24b2

Print Journal

6b25

DHC Fewer hard copies of Jourrrnal Messages  
 19-JAN-73 12:17 14012 Message:  
 This suggestion is actually courtesy of Jon Postel:

A Journal Message receiver should have hard-copy as an  
 optional, rather than automatic occurrence. This would  
 lessen the mail situation some,

Probably the easiest thing to do is have the print Journal  
 command have a verbose mode which queried for a) deletion of  
 the message, and b) hard copy of the message,

6b25a

Now that filters delimited by semicolons ;filter; are defined  
 as viewspecs in the definition of a link or an address,  
 ;filter; should be a valid viewspec whenever the V: prompt  
 appears, (22486,) (KIRK)

6b26

Alternative views in help

6b27

24-SEP-74 1818-PDT KEENEY: help

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Distribution: KELLEY  
 Received at: 24-SEP-74 18:18:37

6b27a

how can i get a printout of the whole help system,  
 i am really behind on nls development and reading the  
 latest help  
 might help (so to speak...)  
 marcia

6b27a1

-(23116,) (MDK) the command feedback window and the literal  
 feedback window should be merged, in practically all instances,  
 so that the total expression that a user composes --- command  
 words, command noisewords, literal typeins, etc --- is  
 displayed in the appropriate order for the user to reflect  
 upon,

6b28

The major difficulty in doing this would seem to be how to  
 handle bugs,

6b28a

I think this depends on the situation,

6b28b

If the user is bugging a word or character or filename then  
 that string can just be displayed; if the user is bugging a  
 structure, then the statement number(s) of that structure  
 could be displayed, or perhaps just the symbol "<bug>" could  
 be displayed; other cases would have to be thought out, of  
 course, but the net effect would be an eminently more  
 readable command feedback line,

6b28c

-(23116,) (MDK) I would like to see a modification to the  
 "Output File" command that allows the output to be "filtered"  
 That is, the command should at least optionally obey viewspecs  
 "i" and "k". This would make it MUCH easier to do a content  
 search and save the results without having to split the screen,  
 create a new file, copy filtered, etc,

6b29

SRL 4-JAN-73

The message at the top at times is poetic, but rather strange  
 looking, for example, Transpose text at through and through,  
 Copy Group from through to follow, etc. It seems the words  
 should go away when they are no longer applicable or slashes  
 between or something (CHI: we could echo an @ or BUG for each  
 bug selection == we will want to do this in final tty=simulated  
 CFL anyway) (JAKE)

6b30

DSM 24-MAY-74 15:07 23117  
 CML Backspace implementation  
 Location: (GJOURNAL, 23117, 1:W)

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\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

6b31

There is a inconsistency in the CML interpreter,

6b31a

In expert/expert recognition mode when the user types the sequence <Space><Letter><Backspace> the backspace is executed as a double backspace and the interpreter considers the next letter input as a LEVEL! Command. Example <space>S<backspace>C recognizes copy command

6b31a1

It would seem more consistent to have one backspace leave the interpreter in a state expecting a second level command sequence, and require the user to type two backspaces (or a command delete) to get to the top of the parse tree.

6b31a2

Changes in basic CML io entities DSEL, LSEL, SSEL,

6b32

Indirect Addressing

6b32a

RLI suggestion on indirect addressing,  
14-AUG-74 14:14 (GJOURNAL, 23793, 1:w)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6b32a1

I believe indirect addressing would be nice to have within editing commands. When the control U business disappears in the new version, one could use the control u to be used as an indirection. E.G. if bugged after control u, the name/link bugged would be taken as the effective address. This is extremely valuable where an index is kept of links and structural entities are moved/copied to positions relative to this links. The slight inconsistency with TNLS should not be a barrier since such an indirecting scheme has very low value for TNLS users and <CA> for them means CM where <CA>=<BUG> means the spot currently being pointed to. Just don't permit it for TNLS. If there is some other conflict I have issued, then consider a special character or another (ugh) control character to indicate the indirection. (how about slash?) Robert

6b32a1a

KIPK 14-AUG-74 17:04 23797  
Addressing in commands by bugging a link  
Location: (GJOURNAL, 23797, 1:w)  
\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

6b32a2

## User Feedback Decisions leading to NLS-8,3

I support RLL's suggestion (23793,) for allowing <CA> immediately after <"U> mean "I'm bugging a link containing the address". The prompts in DNLS would be

B/T/[B/A] for CONTENT (LSEL)

6b32a2a  
6b32a2a1

where the parameter in square brackets for LSEL wants an address (or link, depending on your point of view),

6b32a2a1a

B/A/[B/T] for SOURCE (SSEL)

6b32a2a2

B/A/[B] for DESTINATION (DSEL)

6b32a2a3

I see no inconsistency with TNLS where A: <CA> means "the location of the Current Marker",

6b32a2b

This would also be consonant with the new entity "Default Select" (DEFSEL) for use in the Append, Break, Connect, Distribute, etc. commands. DEFSEL would be T/[B/A]. Just like the new LSEL Robert suggests only without the first B.

6b32a2c

DVN 15-AUG-74 08:21 23798

For Indirect Addressing in Editing (support for 23793)

Location: (GJOURNAL, 23798, 1:W)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6b32a3

Robert's right, I have frequently missed being able to bug a link as a source of a copy etc.

6b32a3a

KIRK Use of the equivalent of a Default Select (DFS<sub>L</sub>?) (Same as TNLS CONTENT = TYPEIN / [ADDRESS], In DNLS = T:[B:/A:],) would allow the user to CONFIRM a command without having to type anything for the default. This would save typing the special control characters <"N> and <"U> in order to change the default for the most frequent use in some commands including the following,

6b33

Append Statement (at) SOURCE (to) ADDRESS <NULL> / TYPEIN /  
BUG / [DAE] CONFIRM

6b33a

This forces the user to type a null character (<"N> or <SP><BS>) whenever appending without inserting any text between the appended statements,

6b33a1

Because bugging text to go between appended statements is more infrequent than not inserting any text between

## User Feedback Decisions leading to NLS=8.3

- statements (NULL), and in order to make the TNLS Append more closely parallel the DNLS Append, I suggest changing the syntax to be: 6b33a2
- Append Statement (at) SOURCE (to) ADDRESS DFSL CONFIRM 6b33a3
- Append Statement syntax (5 bugs required) is too lengthy; possibly use optional text, intervening text, or insert added text, instead of to-through 6b33a4
- RLI suggestion on a new append statement  
23-OCT-73 08:41 19825 Message:  
after a execute insert sequential there exist a nls file with no structure, we have found it desirable to structure it by joining (appending) several statements together, however, the append command operates on statements only, we suggestion that aappend be extended to groups, so that one can append to a statement from a group of statements, namely, append to statement .1 from .3 to .13 etc, one could call this ommand group append to distinguish from append, robert lieberman of nsrdc 6b33a5
- COnnect (to) Directory USERNAME CA <CONFIRM / <"u> PASSWORD CONFIRM> 6b33b
- requires a CA followed by <"u> in order to specify a password (instead of nothing or <SP> as in Tenex). No=password can be the default field and the password can be typed in without requireing <"U>. The command would be: 6b33b1
- COnnect (to) Directory USERNAME CA (Password) DFSL CONFIRM, 6b33b2
- Ken Tells me that this is desirable in other Directory commands as well. 6b33b3
- Output <Quickprint/Journal/Printer/COM> [File CONTENT / Copies TYPEIN] CONFIRM 6b33c
- This requires <"U> to specify another filename or number of copies other than 1. The following syntax would eliminate the need to type <"u> and could also save accidental printings by following the double command accept convention, 6b33c1
- Output <Quickprint/Journal/Printer/COM> DFSL CA (Copies = 1?) DFSL CONFIRM 6b33c2

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Set Name delimiters should be considered,

6b33d

DVN 18-JUN-74 08:29 23392

Strings for the Scope of Substitute

Message; I.e. Substitute character in text, What ever happend to that good idea?

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6b34

Automatic repeat of commands with Commandwords available along with the first parameter (a la NLS=7)

6b35

CML should be modified so that after typing the noun in addition to the parameter (e.g. B:[A:]) all of the command verbs in a subsystem can be made available. This is so those people who think this capability from the old system is valuable can write their own subsystem to do this, (22175,) (KIRK)

6b35a

2) Repeat

6b35b

Can't we have a more intelligent implicit way of getting out of repeat mode as in old system by having it recognize that characters being typed are illegal at that point and try to interpret them as commands?(22931,)

(RWW)

6b35b1

-(23116,) (MDK) I am personally not satisfied with the automatic return to "command reset" mode after every command terminator.

6b35c

The use of "RPT" is not a satisfactory mechanism, especially since it usurps the <control=b> that was previously used for the old center=dot function --- an annoying need to relearn an old habit.

6b35c1

I don't have an obviously winning solution; but my own preference is simply to type "command delete" --- very simple with the mouse, not so simple with a TI --- when I know I want to start a new command. Perhaps this is one place where the old difference between TNLS and DNLS syntaxes should prevail.

6b35c2

19-JUL-74 1558-PDT FEINLER: New NLS

Distribution: FEEDBACK, feinler

Received at: 19-JUL-74 15:58:45

6b35d

To verbalize some of my reticence to use the new NLS :

6b35d1

## User Feedback Decisions leading to NLS=8.3

- There are too many confirms and too much undefinable verbage in the command language, I find a few of the commands almost unintelligible with respect to what I am expected to do. (ex, Sendmail, Append) The number of interruptions from the command language interfer with my concentration on the job I am trying to do.

6b35d2

- The fact that each command is cancelled after it is executed once cust way down on efficiency. For instance, if I am jumping down through a file changing a statement here and some text there. In the old system I could go back and forth between the jump command and the insert command with one bug. Now I must retype the command from scratch. If I have a 'hold' on a command in the new system so that it does not go away after each use, then it is cancelled every time I have to do a jump. Also the double button routine is difficult for me to execute - not infrequently I hit both but only the command delete registers thus canceling my work.

6b35d3

I have mentioned that 'jumps' and text finding seems slower in the new system than it does in the old. HGL is checking this out.

6b35d4

These are verbalized here not to 'knock' the new system but rather in the hopes that they will be useful user comments.

6b35d5

Execute verbose could put him in the most verbose mode for all feedback for the single following command when it's an unfamiliar one such as show drectory (21703,) (21711,) (DVN)

6b36

KIRK 11-AUG-74 00:58 23758  
Ampersand should be a valid character in a statement name,  
Location: (GJOURNAL, 23758, 1:W)  
\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6b37



User Feedback Decisions leading to NLS-8,3

Therefore, some other character should be used to specify an external name. It is of utmost importance that this decision be made as soon as possible before ampersand becomes tradition and impossible to remove.

6b37a

DVN 10-JUL-74 21:34 23591  
 For a Means of Highlighting Strings that Are the Object of  
 Content Searches  
 Location: (GJOURNAL, 23591, 1:w)  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6b38

We are now trying to print via COM some files that came over from another system that included an hyphenation program (as many do) which leaves words with "-" in their midst wherever they now occur in the resulting NLS statement. It happens that many of the statements are very long, more than a screenful in some cases. We cannot merely do a mass substitute because the text includes dashes.

6b38a

what we need in this case is something we often need in editing, a way of visually highlighting a string which is the object of a substitute or a content search. Then an editor could go rapidly through the text, sight every "-" in a moment, and decide it's fate quickly and easily.

6b38b

Since, as I understand it, underline is available both on tasker and on the devices supported by the line processor, underline seems a good way for NLS to highlight strings. I have mentioned this problem before, probably not loudly enough. If NLS is ever to compete as a production editing system, (journal, 23555,) it needs some such feature. Most word processing systems do. The information that a string occurs somewhere within a statement is just not enough for production editing on displays.

6b38c

Jump to Bottom of window.

6b39

KEV request for a new nls command  
 5-JAN-73 13:53 13709 Message:

It would be nice if there were a jump to bottom command in NLS that function similarly to the current jump to item command except that the item selected became the new bottom line of the screen. Viewspects that matter (such as the e viewspec) could be taken relative to the bugged item. This command would be very useful in looking at assembly files for example.

6b39a

User Feedback Decisions leading to NLS-8,3

RLL 9-AUG-74 10:43 23750  
 A new jump command suggestion,  
 Location: (GJOURNAL, 23750, 1:w)  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6b39b

I have often found that I wanted a window view showing the last (tail) part of the plex. Jump to tail shows only the tail statement and what follows. I suggest we have another jump (e.g. jump to full tail) that would have the tail statement as the last line of the window, this would give a full screen view of the last part of the plex. Of course it would obey viewspecs. A more general set of jump commands would be a tjump. Where tjump noun does the same as jump noun but positions the bugged (or addressed) statement at the tail(end, bottom) of the window. Rob

6b39b1

(KIRK)

6b40

Allowing edges to be moved anywhere up to the margin and then moved back.

6b41

Jump to previous screen composition, including windows that have been moved away. (MDK)

6b41a

Allow a user to type "Execute command in TENEX" which would take him to the exec to do one command and then allow him to return (22815,) (KIRK)

6b42

-(23116,) (MDK) you can of course "goto tenex", but you can't "execute command in Tenex" --- so tenex is not a true subsystem !

6b42a

KIRK Proposed system using two viewspecs to view warps (text specified by a link instead of link syntax).  
 13-JUL-73 20:46 (LJOURNAL, 17811, 1:w)

6b43

Warps on. When viewspec 1 is on, the text at the addresses specified by links (warps) will be viewed instead of the link syntax unless viewspec 2 is in the viewspec field of the link.

6b43a

Warps off. When viewspec 2 is on, link syntax will be seen instead of warps.

6b43b

If viewspec 2 precedes viewspec 1 or viewspec 2 and not viewspec 1 is in the viewspec field of a link, only the

## User Feedback Decisions leading to NLS=8,3

syntax for that link will be seen even if warps are on, when you jump to a link with viewspec 2 in it, warps will be off unless viewspec 1 is also in the viewspec field of the link,

6b43c

If viewspec 2 precedes viewspec 1 in the viewspec field of a link, only the syntax for that link will be seen even if warps are on. However, warps will be turned on when you jump to that link,

6b43d

If only viewspec 1 is in the viewspec field of a link and viewspec 1 is on, the warp will be viewed instead of the link syntax, and the view of the warp will have warps on. That is, the view will be the same as if neither viewspec 1 nor 2 were in the viewspec field,

6b43e

However, if viewspec 1 precedes viewspec 2 in the viewspec field of a link and viewspec 1 is on, the warp will be viewed instead of the link syntax, but the view of the warp will have warps off,

6b43f

Stacking warps is controlled by viewspec 1 followed by some number of viewspec 2's. Each additional viewspec 2 adds the capability of seeing one more stacked warp.

6b43g

I propose that warp views be allowed to include more than one statement and be governed by the viewspecs in the viewspec field of the link. If viewspec 1 or 2 is in the link, only viewspecs to their left will apply to the warp view, only viewspecs to their right will apply when jumping to link. A link with an empty address field cannot be a warp. Addressing and editing the text in a warp should be possible when warps are on,

6b43h

Warps should be surrounded by the delimiters of the link,

6b43i

For example, warps off:

6b43j

LOCATOR <nic,locator,0:122sebbmz>

6b43j1

JOURNAL (journal, tjcat, 1:xbr2)

6b43j2

Warps on:

6b43k

LOCATOR <<NIC>LOCATOR,NLS;115, 12-JUL-73 17:17 KIRK ;  
1 USING THE LOCATOR ONLINE  
(:wn)

1A The Locator organizes selected NIC documents so that you

User Feedback Decisions leading to NLS-8.3

can reach and read any part of documents online with few

commands,

2 NIC DOCUMENTS

(:ebtm)

2A ARPA NETWORK RESOURCES NOTEBOOK NIC 6740

(:tebbn)

2B GLOSSARY

(This is the NIC GLOSSARY.

To find the definition of a one word term, type:

p[rint] b[ranch] ,TERM CR CR

CONTROL o ("o) stops printing,

For an offline formatted version, use

<NIC,GLOSSARYFL,0:w>

2C INDEXES TO THE NIC CATALOG COLLECTION NIC 5145

(:tebm)

2D NIC USER GUIDE NIC 7590 and ARC USER GUIDES

(userguides,arclocator,2:tebm2)>

6b43K1

JOURNAL (journal, tjcat, 1:xbr2)

6b43K2

HELP Software DEVELOPMENT

6b44

KIRK 28-SEP-74 01:28 24087

Syntax could be better

Message: I think we made a big mistake when we decided to describe the syntax in terms of how you specify something (CONTENT, SOURCE, DESTINATION) instead of what you need to specify (STATEMENT, CHARACTER, etc.) when we decided we didn't have room to put both. I'm journalizing this for the record in hopes that it can be rectified someday.

\*\*\*\*\*Note: [ INFO=ONLY ] \*\*\*\*\*

6b44a

Free text input

6b44b

RWW 1-MAY-74 16:15 22874

help system needs

Message: Some suggestions fo Help, w need to instrument help to see path etc. It would also be nice to let the user input free form text to express his question or problem and whether or not it got answered or what ever.

\*\*\*\*\*Note: \* action \* \*\*\*\*\*

6b44b1

Brief views specifiabile by user

6b44c

RLL 23-APR-74 12:48 22804

help system suggestion

## User Feedback Decisions leading to NLS=8,3

Message; suggestion on help system; the show < command returns one to next higher level; fine. But in TNLS it would be nice to return to this point without printing out all the "help" info again includingg the menu (it was presumedly printed out before and one can look at it). Yes, one could use the control O command to cease printing but this is not 'neat'. If not too hard suggestion a show <n command to supress the printing,

6b44c1

Most frustrating thing is finding two or more objects on the menu you want to examine. You go after one, but it is very difficult to get back to previous menus. The best thing to do, apparently, is type SHOW T:/[A]: " until you get to the place where you can re-select. The large penalty for doing so is that you have to look at that piece of text again. There really ought to be a way to get only the previous menu in the tree, (RICART)

6b44c2

## User=program integration into NLS suggestions,

6c

Currently Append Branch is not implemented. It would be easy to implement by having it do exactly what append statement currently does. Append plex and group is another story. They should work like the Append user program in the running system. (22059,) (KIRK)

6c1

Preliminary Proposal for handling user=programs in NLS=8 see <hjournal, 23986,> <hjournal, 23992,> and <hjournal, 23999,> for background

6d

suggestions for handling user=programs listed by Applications <hjournal, 23986,>. Codes in parens: Difficulty (a, b, c), Priority (1, 2, 3).

6d1

LETTER (works now, no change)

6d1a

FORMAT, DELDIR, and SHOWDIR (work now, no change)

6d1b

part of FORMAT user=program

6d1b1

JFORM3: (a1) works now,

6d1c

suggest change as the default journal format with some possible minor changes to avoid confusion with level indention, (Harvey?)

6d1c1

DELSP (a1)

6d1d

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BASE: Delete Leading (spaces in) STRUCTURE (at) DESTINATION OK:	6d1d1
alternative implementation in PUBLISH user=Subsystem	6d1d2
ADDRESS (b1) works now, suggest integration as	6d1e
BASE: Insert Address (to follow) STRING (for ident:) CONTENT OK	6d1e1
possible additions	6d1e2
BASE: Insert Address (to follow) STRUCTURE LEVELADJUST (for ident:) CONTENT OK: This command inserts the address as a statement.	6d1e2a
BASE: Insert Address (and phone?) Y/N (to follow) STRING (for ident:) CONTENT OK	6d1e2b
alternative implementations	6d1e3
BASE: Copy Address (to follow) STRING (for ident:) CONTENT OK	6d1e3a
MESSAGE (b1) works now, suggest integration as	6d1f
BASE: Copy/Move Message (file) OK/CONTENT (to follow) DESTINATION LEVELADJUST OK:	6d1f1
alternative implementations	6d1f2
BASE: Copy/Move Sequential (file from) CONTENT (to follow) DESTINATION LEVELADJUST (using) SEQTYPE OK: SEQTYPE = One (<CR> ends statement) Two (or more <CR>s ends statement) [JUSTIFIED (source file)] Message (file format) Assembler Assembler/Heuristic/Justified/Message] OK	6d1f2a
(note: there is currently no Move Sequential command)	6d1f2a1
INSEGH (being re-implemented by Charles as)	6d1g
"COPY" "SEQUENTIAL"	6d1g1
<"file from"> source - LSEL("#"OLDFILELINK")	6d1g1a

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```

    <" to follow"> dest _ DSEL("#STATEMENT")                6d1g1b
    level _ LEVADJ                                           6d1g1c
    <"using">                                                 6d1g1d
        ( "ONE" <"<CR> ends statement">                    6d1g1d1
          / "TWO" <"<CR>s ends statement"> ["JUSTIFIED"]    6d1g1d2
          / "ASSEMBLER" )                                     6d1g1d3
SENDMES (b2)                                               6d1h
SENDMAIL: Unrecorded Y/N/C/OK:
C prompts for: Immediate ((sendmessage) distribution:)
CONTENT OK:                                               6d1h1
    Question: If the Distribution command was used as
    well, does the mail goes to those people as unrecorded
    or recorded nls files/messages?                       6d1h1a
APPEND (c2)                                               6d1i
    BASE: Append Group/plex (at) DESTINATION (join with)
    CONTENT OK:                                           6d1i1
    note: Append Branch should do the same thing that Append
    Statement now does (i.e., carry the substructure along,)
    except it would place the substructure after any
    substructure under the destination instead of before it,
    <feedback,fdbk,future>                                6d1i2
ADDTXT (c2)                                               6d1j
    BASE: Insert Front/Back of STRUCTURE (at) DESTINATION
    CONTENT [FILTER] OK:                                   6d1j1
    alternative or additional implementation                6d1j2
    BASE: Substitute Back/Front [FILTER] (in) STRUCTURE
    (at) DESTINATION <new text> CONTENT OK:               6d1j2a
    maybe STRING/STRUCTURE instead of just STRUCTURE ??  6d1j2a1
TOC(b1), INDEX(c1), MAKEREF(c2), WORDCOUNT(a3):        6d1k
    PUBLISH user-subsystem commands                       6d1k1

```

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Generate	6d1k1a
Table (of Contents)	6d1k1a1
Index	6d1k1a2
References	6d1k1a3
Count Words	6d1k1b
Could easily be interfaced as BASE commands	6d1k2
SORTNOCASE, sortrev, sortalphabetic: (b2)	6d11
BASE: sort STRUCTURE (at) DESTINATION SORT-ALT (finished?) Y/N/OK: SORT-ALT = OK: ! for default or current sort=key *userprogram ! Ignore (case) Reverse Skip CONTENT	
CONTENT after Skip wants a content-pattern.	6d111
SUBFTPM, (ftpmSYS), Load Remote (file)	6d1m
(hopper has a user=Subsystem)	6d1m1
should be implemented as the SITE field in ADDRESSES	6d1m2
DELNAME (a3)	6d1n
should remain as user program	6d1n1
SUBLIST (b3)	6d1o
should remain as user program	6d1o1
NOTABS (c3) (doesn't work right in nls=7)	6d1p
should remain as user program	6d1p1
The NIC programs not listed here need more research and can be handled as a separate issue.	6d2
NLS-8.1 (ARC currently available userprograms 20-SEP-74)	6d3
address	6d3a
calculator	6d3b



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identification	6d3c
jform3	6d3d
letter	6d3e
message	6d3f
mouse	6d3g
sortalphabetic	6d3h
sortnocase	6d3i
sortrev	6d3j
inseqh is part of running system	6d3k
letter	6d3l
no change to subsystem	6d3m
format, deldir, and showdir done as part of FORMAT user=program	6d3n

## DOCUMENTATION DEVELOPMENT

DB: Data Base

> this contains items that have not yet been assigned to a person or are controversial. For assigned tasks, see <nls,mods,done>

6e

Create and maintain a reasonable tree structure with which the user can identify. This depends on an accessing system that allows the user to see Map and Full views. And allows the user to take reference links located in a node. (Reference links are not classified by the node and therefore do not belong in its substructure.)

6e1

The treeishness is very confused by the arbitrary allowed branches. Let's say that you are trying to find out about subject X. You are led down the tree, selecting various branches. At one point, your eyes light up since one choice is "all you wanted to know about X". You think that finally you are going to get the info. In reality, it takes you back to a previous menu and you have to start all over again.

6e1a

DvN I really like the when FILENAME at the same spot spells out its parts in the menued line.

6e1b

## User Feedback Decisions leading to NLS=8,3

RLL 23-APR-74 17:50 22810

annoying loop in help menu system

Message: JUst came across a loop in the help system, I realize that this probably occurs quite often, however it was a bit annoying to kep seeing in menus the same selection. The particular instance in this case was with ITEM, show item has 1, message and show message has 1, item, guess it would be too hard to prevent this sort of tight loop (a stack of the last menu items called might beinspected before system goes off- if recently displayed then could user option of aborting this selection),

6e1c

10-MAY-74 0545-PDT JERNIGAN: HELP Loop in Programs Section  
Distribution: FEEDBACK, jernigan  
Received at: 10-MAY-74 05:45:51

6e1d

There is apparently a loop in the HELP Database under the Programs Subsystems section, (1) into the Programs part of Subsystems; (2) Show "loading user program" which is item 3, (3) At this point a section of information comes up entitled "loading user programs" and under it there;are a "show also" selection plus 10 items, In the Show Also are "Programs Load, Filename, extension". (4) Do a Show "Programs Load" and it shows a section of info with two items, first one which is "important loading information", (5) Do a Show "important loading information" (which is item 1), (6) you get an Item not found; (7) do a show 1 (which is same thing), and you get "important loading information, a CR, and loading user programs: blah blah, which is where you started, I have the TI paper printout from the loop and will deposit it on Susan's desk, (Point is, it is not important loading information if you just saw it from where you came in.)

6e1d1

The first line of every function statement could be the syntax, Add syntax as first part of each function statement.

6e2

f) In help database, on some commands you get the syntax in the menu, others not, I like getting the syntax as it may not require me to go on, Let's adopt this as the uniform convention, (22931,) (RWW)

6e2a

f. SHOW DELETE MARKER (22871,) (MDK)

6e2b

This works o.k. but illustrates an undesirable feature:

6e2b1

The first line of the response says simply "MARKER", It should say "DELETE MARKER", This comment holds for all

## User Feedback Decisions leading to NLS=8,3

SHOW's for which the object is a stacked statement name:  
the first line that results from execution of the SHOW  
command should contain the entire stacked statement name, 6e2b2

Change all STRING and STRUCTURE and SUBSYSTEM references in  
Function, (syntax and example) to a reference for each  
command=noun, 6e3

Backlink system 6e4

Whenever the Insert Link command is used, 6e4a

before it inserts the link, it parses the link and 6e4a1

finds the addressed statement and 6e4a2

places a link appended to the end of the addressed  
statement 6e4a3

preceded by a carriage return, and 6e4a3a

surrounded by pound signs: #<01234># 6e4a3b

it then inserts the SID of the statement addressed by the  
inserted link 6e4a4

after comment dashes 6e4a4a

after the address inserted by the user, 6e4a4b

If it does not find the addressed statement, 6e4a5

it will insert the link without the "=- SID" 6e4a5a

but only after sending out a message and requesting an  
extra confirmation, 6e4a5b

The delete statement command 6e4b

checks to see if any links delimited by # are in the  
statement, and 6e4b1

if one is found, refuses to delete the statement, 6e4b2

if the user still wishes to delete such a statement, he must  
use the Delete Referenced Statement command, 6e4c

The Renumber SID's command will check for links and either

User Feedback Decisions leading to NLS=8,3

not work, or else only renumber those statements without links,

6e4d

You must use the Renumber Referenced SID's command to renumber referenced statements,

6e4e

Suggestions outside the realm of NLS code,

> Network Information Center Feedback sent to ident NIC, see Jake feinler to determine status,

Operations and User Development feedback sent to indent FEED, see <OFFICE-1, FEEDBACK, FEED,> or Jim Bair for status,

6f

DVN 20-MAY-74 19:38 23062  
 response to Response  
 Location: (MJOURNAL, 23062, 1:w)  
 \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6f1

I think "Force Case" is much nicer than "set Case mode", (mjournal,23019,1q) How about "show markers",...,"Show File Marker" is two extra key strokes considering "marker" is a second character name in expert expert mode,

6f1a

#### OPERATIONS & USER DEVELOPMENT (UD)

6f2

##### ARC Environment

6f2a

KIRK 1-FEB-74 12:28 21723  
 NP for an Offquota command  
 Message: The equivalent of an Offquota command (for the group allocation system) is needed to maintain the first-on, last-off convention and make Cooperation among members of each group much less painful. This would allow you to keep your place in the offquota stack when another member of your group is scheduled to be onquota. Currently when you are automatically made onquota, you must log out to allow a scheduled person to log in.

6f2a1

Interface to video-tape cassette machines,

6f2b

##### Hardware

6f2c

##### Mouse and Keyset

6f2c1

I want two mouse=sets with five buttons each instead of one mouse and one keyset (KIRK)

6f2c1a

##### Typewriter terminals

6f2c2

User Feedback Decisions leading to NLS=8,3

KIRK Features desired in typewriter-like keyboard hardware for optimal user control,  
24-JUL-73 20:47 (LJOURNAL, 17999, 1:w)

6f2c2a

Printer

6f2c3

RWW NP for a Printer Escape Mechanism  
17-JAN-73 10:05 13857 Message:

A problem has arisen today which has been seen before, namely someone sends a very large file or large number of copies of a file to the printer and then realizes he made a mistake, in the meantime the printer is tied up for 20-30 minutes. Can an escape mechanism be put in the system so the the operator can tell the printer process to stop printing the current file and move on to the next on in the queue?

6f2c3a

TENEX

(Secondary distribution to KEV &amp; DCW)

6f2d

The message "use downtime command to see new up-down schedule" would be a valuable thing if it only appeared when there was a new up-down schedule. (22176,) (KIRK)

6f2d1

J1 TENEX/NLS File Compatibility : A mini-suggestion  
30-OCT-73 07:55 19908 (JOURNAL, JRNL15, J19908: gwy)

6f2d2

DHC Archive listings briefer

12-NOV-73 14:41 20174 Message:

I am really glad to see the Archive stuff getting polished, a VERY strong request, tho, is to make the printing of what tapes thefiles are on OPTIONAL (default to DON'T print). If the Archive system works properly, the user doesn't actuallyever need to know the the tape numbers,

And it will greatly speed up the listing process.  
(Dave,)

6f2d3

JBN Repeated Request for Truncated Print of ARC SNDMSG  
3-AUG-73 08:26 18187 Message:

Again, I would like to request that local sndmsg be fixed so that it prints on 8 1/2 paper rather than across

User Feedback Decisions leading to NLS=8,3

the printer paper. As you know, sndmsg from outside stops at the perforation, and it is inconvenient that ARC messages do not. I am sending this only to NP. If that is not the place, would you forward the request, == Jeanne N

6f2d4

IMLAC

6f2d5

DHC IMLOAD for Imlacs attached to TIPS

23-APR-73 12:54 16048 Message:

The IMLOAD program should be able to reload an imlac attached to a TIP port, just as SENDPRINT can divert output to a TIP port (ostensibly a printer). This way, a Crashed imlac could be reloaded, using another terminal, without having to put a standard editor into the imlac.

TIP Divert Output doesn't work. I have tried it many times and apparently too much dirty data get into the loader stream.

6f2d5a

DHC IMNLS changes that should be

25-APR-73 13:17 16163 Message:

These two suggestions are courtesy of Mark Kampe:

6f2d5b

1. Make the functioning of the "direction" buttons an option which is user settable (It would be option 'A', after option 'O'). This would allow users to use the buttons, to control the cursor, instead of the bug. Also, please have UCLA's option begin enabled. Also, the option should not exclude use of the bug, while it is enabled.

6f2d5b1

2. Use the 'clear screen' instruction (or clear data area) as a button (page xmit?) on the board, under user control.

6f2d5b2

Scheduler

6f2d6

JEW scheduler gripe \* 20-FEB-73 17:18 14551==

Scheduler gripe

It's a Nice Place to Visit, But Why Do I Have to Live There?

Location: (IJOURNAL, 14551, 1:W)

6f2d6a

Archive System

6f2d7

## User Feedback Decisions leading to NLS-8,3

JEW 4-MAY-73 14:08 16282  
 Adding a DELETE Function to BSYS  
 Location: (IJOURNAL, 16282, 1:w)

6f2d7a

KEV 16-JAN-73 14:04 13827  
 archive status of nls files  
 Message: It would be nice if nls propagated archive  
 status when it did an update file

6f2d7b

DHC 13-JAN-73 11:03 13799

QFD

Message: It is very irritating not be able to use the  
 'qfd' command in tenex,  
 and therefore to have to print out a rather long  
 directory list,

I can't believe it is computationally expensive to use  
 that commands.

6f2d8

## Network

6f2e

JEW NP NLS GLITCH, Underscore Represented as Vertical  
 Bar for Net TTYS %map into UNDERSCORE BACKSPACE%  
 27-FEB-73 13:49 (IJOURNAL, .14810, 1:w)

6f2e1

## NETWORK INFORMATION DEVELOPMENT (NIC)

6f3

## Functional Documents

6f3a

MEJ 4-MAY-73 18:14 16284  
 Desired Catalog changes  
 Location: (IJOURNAL, 16284, 1:w)

6f3a1

JAKE 5-MAY-73 21:23 16300  
 Siteidents  
 Location: (IJOURNAL, 16300, 1:w)

6f3b

Comments: Suggested method for assigning siteidents

6f3b1

RWW \* 10-NOV-72 10:33 12718  
 Three Tasks Requested of JEW for Evolution of NLS  
 Integration into the NET

User Feedback Decisions leading to NLS=8.3

Location: (LJOURNAL, 12718, 1:W)

6f3c

DHC 12=JAN=73 11:42 13776

Making nls Use the Net more Efficiently

Message: It appears that nls is quite inefficient in composing network "messages".

6f3d

Clearly it has no choice when echoing characters, but when sending out relatively large quantities of data (and relative to single-byte echoing, 20 or 30 characters is a large quantity) a larger message-size should be attempted. Perhaps a 1000-bit (one packet) buffer, vs. 2-3 seconds between messages should determine transmission, i.e., try to fill a packet, but if it takes more than 2 or 3 (or whatever seems reasonable) seconds of real time, send the message off "now".

6f3d1

1k bits doesn't seem like an unreasonable buffer (unless, of course, TENEX does nasty things to keep you from it.)

6f3d2

Please let me know what you think of my thinking. If I am off base, I would like to understand how.

thanks,

6f3d3

ANALYSIS

6f4

feedback process

6f4a

28-MAR=74 0920=PDT BAIR; Feedback mechanisms

Distribution: FEEDBACK, islei at ISI, bair

Received at: 28-MAR=74 09:20:06

6f4a1

Jon, It all of a sudden has become very clear that we must coordinate on our separate feedback endeavors. We have a mechanism for subscribers to the Utility that is being refined now after 2 months of operation (see -- bair,feed,1) @ SRI-ARC. I have looked at your groups document and could discuss it with you, particularly from the viewpoint of a Behavioral Scientist. Anyway, we are having our final meeting next week (3 Apr). There seems to be no question that there will be 3 mechanisms, 0

at ARC, 1 at Office-1, and the NET. They have very different characteristics and serve different communities. Looking forward to hearing from you, Jim

6f4a1a



## User Feedback Decisions leading to NLS=8.3

JMB - A suggestion she sent in was forwarded to a programmer who in turn contacted her for more information that was specified in the original suggestion.  
Reinforcement for distributing original text of items,

6f4a2

JHB - I would like to see an acknowledgment when action is taken, and only then. Otherwise the assumption would be that none was taken,

6f4a3

DVN 30-JAN-74 20:04 21688

Against Feedback for Now

Message: Please don't give me feedback on all the flack I have been sending you!

These days, we are going through a kind of debugging of newnls. Most suggestions are really notices of what the sender thinks are bugs either in the code or in his view of the way the system responds to the user. As we get more settled, the situation will be different, suggestions will be more constructive and long term. Then it might be useful to give feedback, perhaps request for feedback should be some kind of option,

6f4a4

KIRK 31-JAN-74 15:21 21700

Response to Susan's (21685,)

Message: Your message asking whether NEWNLS stuff should be acknowledged is a good idea. It didn't mention the alternative of each user being able to easily find out what happened to his suggestion by going to the NLS file, so you should judge the responses you get accordingly. I think you know my feelings, but I'll restate them here for the record. I think it would be nice to be able to get a message telling me the status of each of my suggestions each step along its way to implementation, rejection, or the limbo of contention. However, this expensive service (even if pared down to a minimum single message acknowledging receipt) should only be undertaken if enough of a person's time (10-50% ?) to do it right has been allocated by analysis, operations, development or whoever. Until this time has been made available, I think we should concentrate on making the feedback mechanism as accommodating as possible for someone to find what happened to their suggestion on their own.

6f4a5

JEW Dispatching Users' Questions Efficiently

2-OCT-73 14:39 19420 Message:

Why not create an ident similar to NP and BUGS, called

User Feedback Decisions leading to NLS=8,3

HELP, to which users can address questions (as opposed to suggestions or bug reports) about use of our system (eg., 'How do I do such and such?')? This would not only alleviate the very common problem (in my experience) of each person at ARC having to serve as dispatcher for questions that he can't answer, asked of him simply because the asking user knew his name; but it would also (I would guess) serve to generate a data base from which holes in our user guides could be patched. Maybe there is such an ident already and I don't know about it and nobody uses it (?). [Implementation Problem: There's already a branch in the Ident File (although not an ident) called HELP.]

6f4a6

KIRK NP for voting capabilities.  
2-JUL-73 19:12 17608 Message:

I would like to vote for Jeannes suggestion (17590,) in the NPS file but I don't know how. Is sending another Journal message the only way? It might be worth while to devise a simple voting system allowing people to associate their ident by someone else's suggestion in the NPS file. Decision makers might like to have an indication of how much user weight is behind a particular improvement. Maybe people would be more inclined to use the NP and BUGS files if they could easily vote for suggestions. I know one user who would feel he had a little more of a role in the bootstrap feedback process. (17611,) (DVN)

6f4a7

other

6f4b

JMB 24-JUN-74 12:31 23439  
re <GJOURNAL,23429,3g6> New NLS NPs  
Message: I think that #3 Show Return Stack which is under the New Commands Desired section of ADDITIONS should be moved up in priority to the New Commands Desired section of CHANGES, because the lack of such a command, or an alternative solution, is an inconsistency (there is a Show File Return stack command) and a serious frustration in TNLS (there is no way to see where you will find yourself before you go there, changing your stack==/ in an address now works only after you give the <CA>), and is even more than an NP in my opinion.

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

6f4b1

KIRK 16-APR-74 12:21 22742

User Feedback Decisions leading to NLS=8,3

My notes of the observations of Sandy trying to learn  
 Xnls  
 Location: (LJOURNAL, 22742, 1:w)

6f4b2

Assigned tasks: > see < nls, mods, >  
 this needs to link to mods or something to avoid duplication. It  
 also hasn't been updated in over a month. If you could mark the  
 appropriate status for each item, I'll put it in the appropriate  
 category (done, rejected, Future discussion item, or Assigned to XXX,  
 I guess "on the list in MODS" would also be an appropriate category.)  
 That is the primary difference between the "Assigned" branch in FDBK  
 and MODS. MODS has the assigned person's IDENT by the item where  
 assigned, and FDBK has them in branches. Lets pick one way of doing  
 it and eliminate the duplication of effort across files.

7

people to be done for NLS=8,2 see <NLS,MODS,MODS>

7a

CHI -- FRONTEND, CML, SENDMAIL

7a1

EKM -- GENERAL NLS, COBOL INTERFACE <see -- nls,mods,>

7a2

EKM -- CALCULATOR, OUTPUT-PROCESSOR,

7a3

KEV -- TENEX INTERFACE, PDP-11

7a4

DSM -- USERPROGRAMS, FDBK interface

7a5

KJM -- SECRETARIES INTERFACE

7a6

STAFF -- MYSTERY BUGS

7a7

HGL -- HELP SOFTWARE

7a8

DVN, JMB, KIRK: DOCUMENTATION, HELP INFO CONTENT <see==done>

7a9

DIA -- LINEPROCESSOR, CML compiler

Charles, I'm trying to clean out the feedback file. Could you  
 look these over and note which ones have been fixed, or wont be  
 fixed? DIA says this should be done by you.,. He also said  
 the only one he thought would not be fixed is the LP-to-Tasker  
 bug reported by DVN

7a10

KIRK lineprocessor bug

14-AUG-74 14:52 (GJOURNAL, 23794, 1:w)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a10a

Going into nls when your initial file partial copy is

User Feedback Decisions leading to NLS=8.3

busy at another job freaks out or hangs your  
lineprocessor job,

7a10a1

RLL 5-JUL-74 07:23 23526

LP bug. When tabs in text and updating done,  
Message: For DNLS and the line processor (with Delta D);  
When there are tabs in text the LP messes the display up  
after one does updates, e.g., replace word or character. It  
appears that the updated line is split into two lines with  
the first part on the line below (yes below) and the rest of  
the line as it should be. call me or try it yourself,  
Robert

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a10b

NDM 8-JUL-74 13:08 23547

Line Processor Troubles: Tabs  
Message: When I edit a line with tabs in it, the system goes  
to rewrite the statement, and after the line with tabs is  
puts in an artificial blank line. Viewspec=f works  
properly.

\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

7a10c

NDM 8-JUL-74 08:11 23544

Line Processor Troubles: SENDMAIL message  
Message: I did a message and it blanked part of the screen  
(on Line Processor). That part was never restored.

\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

7a10d

NDM RLL 10-JUL-74 12:27 23569

Line Processor Troubles: Move Boundary  
Message: On the Line Processor, in New NLS, viewspec w (all  
lines all levels), when I Move the Boundary of a  
horizontally split screen, only one line of each statement  
is displayed. It is cut after 72 chars, even if that falls  
in the middle of a word. If we turn off level indentation,  
more of the statement appears (filling the 72 char line).  
It seems the only way to recover is a TENEX reset! Haven't  
tried old NLS or work.

\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

7a10e

NDM 10-JUL-74 12:37 23570

Line Processor Troubles: Backspace in Literal Input  
Message: While typing in a literal (like in Insert Statement  
or now during SENDMAIL Message), I type two lines, then  
begin the third and see a mistake in the second. So I

User Feedback Decisions leading to NLS=8,3

backspace through all of the third line, then the next backspace erases the char/word from the top line rather than the second line. It actually does the right thing to the literal, but displays it wrongly. Further backspaces are displayed properly.

\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

7a10f

NDM 11-JUL-74 09:02 23595

Line Processor Troubles; Update File Compact  
 Message: Update File Compact, on the Line Processor, tries to refresh the display when it's about done. It takes some lines down, puts some back up, and leaves me with a screen resembling my file but with pieces of it randomly disorganized (in their placement on the screen).

\*\*\*\*\*Note: [ INFO-ONLY ] \*\*\*\*\*

7a10g

18-JUN-74 1807-PDT BAIR at OFFICE-1: Line proc error

Distribution: FEEDBACK AT SRI-ARC, bair

Received at: 18-JUN-74 18:06:57

7a10h

When doing a Jump to item, (got pbug error fndchr,... It continued in this mode apparently unable to accept a mouse bug.

7a10h1

18-JUN-74 1814-PDT BAIR at OFFICE-1: lineprocessor

Distribution: IRBY AT SRI-ARC, FEEDBACK AT SRI-ARC, ANDREWS AT SRI-ARC, bair

Received at: 18-JUN-74 18:13:53

7a10i

Perhaps something has changed, but I cannot get this thing to work in DNLS at Office-1. It crashes consistently after the third command in DNLS!!

7a10i1

RLL 19-JUN-74 13:39 23410

refresh bug in LP

Message: Using the line processor (Wash), while in sendmail, I typed a long message of about 16 lines. Loaded file was deleted line pr line as it should be when inserting text of message, however when done, the message was cleared and the file text was not refreshed, that is I had about 16 or more lines that were blank. Did a refresh via mouse buttons and viewspec f. Got all lines back but when doing the message bit again in sendmail, the lines were not erased before the new text was typed. Since it is happening now I do not know if the line will reappear when i finish this message.

Robert.

User Feedback Decisions leading to NLS=8,3

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a10j

DVN 27-JUN-74 16:41 23486

SCSR JSYS error crstr

Message: For what it matters, when I quit at tasker, detached, attached at the line processor, and attempted to continue, that was the error message I recieved, succeeded by a series of "NLS Display Error."

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a10k

NDM 27-JUN-74 13:57 23482

Line Processor Troubles: Split Screen

Message: I have a horizontally split screen. In the top window I have viewspec g on (branch only) so part of the window is blank. I deleted one of the statements in the top window. The boundary and bottom window moved up to delete the line, but never moved back down.

7a10l

Comments: happened in both old and new NLS

7a10ll

RLL 26-JUN-74 07:29 23475

Bugs in viewing (maybe LP problem)

Message: Two bugs: DNLS at the lineprocessor; 1) when having split screen (horizontal), with lower half having frozen st on (viewspec o) I did a viewspec K (signatures on) and f (refresh) the frozen statement dots disappeared (there were no frozen staements at the time). Turned on viewspec o again, tried viewspec L (sign, off) and f(refresh) and again the dots disappeared, turning viewpec o and f on worked. My guess: on split screens with frozen statements on, refreshing the screen causes the frozen st to be turned off. tried the same with no oslit screen and had no problems. (2) with no split screen tried viewspec K and f. got strnage view, namely it appears that the system thinks i have a very wide terminal. the whole staement appears (if I could see it) on one line. Of corse this cuts the staement off in the middle of what ever is the 72 character. only way out of this is by resetting NLS. again; this is DNLS with Lineprocessor.

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a10m

18-JUN-74 1807=PDT BAIR at OFFICE-1: Line proc error

Distribution: FEEDBACK AT SRI-ARC, bair

Received at: 18-JUN-74 18:06:57

7a10n

## User Feedback Decisions leading to NLS-8,3

When doing a Jump to item, (got pbug error fndchr,... It continued in this mode apparently unable to accept a mouse bug.

7a10n1

18-JUN-74 1814-PDT BAIR at OFFICE-1: lineprocessor  
Distribution: IRBY AT SRI=ARC, FEEDBACK AT SRI=ARC,  
ANDREWS AT SRI=ARC, bair  
Received at: 18-JUN-74 18:13:53

7a10o

Perhaps something has changed, but I cannot get this thing to work in DNLS at Office-1. It crashes consistently after the third command in DNLS!!

7a10o1

5-JUN-74 1635-PDT MEYER at OFFICE-1: Line Processor and SENDMES User Program  
Distribution: FEEDBACK, irby at ARC, andrews at ARC, white at ARC  
Received at: 6-JUN-74 04:47:50

7a10p

Line Processor only gets blown out by SENDMES when SENDMES goes to try a network delivery, Jim White, ideas?

7a10p1

NDM 31-MAY-74 07:33 23175  
Line Processor Troubles: Empty Screen  
Message: Still awaiting new Line Processor and new program, so don't know if this is fixed in new setup. After running a Content Analyzer that returns "Empty", X recreate display with viewspec J does NOT take down the "Empty". It just writes over it when overlap.

7a10q

NDM 23-MAY-74 06:06 23086  
Line Processor Troubles: Horizontally Split Screen  
Message: Screen horizontally split, I delete a statement in top window: boundary and all bottom window jogs up one line as it erases deleted line, then STAYS there. Recreate display in bottom window does right thing but top line of bottom window remains (duplicated as) bottom line of top window.

7a10r

MEH JHB KIRK 16-MAY-74 14:45 23023  
lineprocessor feedback  
Location: (MJOURNAL, 23023, 1:w)  
\*\*\*\*\*Note: [ INFO=ONLY ] \*\*\*\*\*

7a10s

author:JHB date:15 may 74 time:4:30

7a10s1

## User Feedback Decisions leading to NLS=8,3

all of a sudden received stream of garbage characters,  
in command mode that i couldn't stop, some of them  
were executed causing file to be renamed, 7a10s1a

author:JHB date:15 may 74 7a10s2

<"C> and con do not clear screen for tenex. neither  
does reset, 7a10s2a

author:JHB date:15 may 74 7a10s3

split screen insert statement==dumped part of  
statement into tenex window and doubled the viewspec  
fdbk, 7a10s3a

author:JHB date:15 may 74 7a10s4

would randomly not clear fdbk windows, 7a10s4a

author:kirk date:8 may 74 time:15:31 7a10s5

backspace character (BC key) is defined to be <"H>  
which doesn't wok in tenex and means something  
different in NLS, it should be defined to be <"A>, 7a10s5a

author:kirk date:9 may 74 time:9:18 7a10s6

i had viewspec B and L and then changed to W but i  
only got 2 lines no matter what i did after that, i  
could not get more than 2 lines for a statement, 7a10s6a

author:kirk 7a10s7

i got hung, characters went in but nothing came back,  
reset LP and <"P> worked, 7a10s7a

author:MEH 7a10s8

same bug as one listed previously, reset tip channel  
by disconnecting modem, works ok now, for some reason  
tip gets in a state where it will not listen to <"P>, 7a10s8a

NDM 9-MAY-74 14:34 22933

Line Processor Troubles; Dialog to date

Location: (MJOURNAL, 22933, l:w)

7a10t

Comments: Summary of Line Processor dialog in which I  
have been involved, 7a10t1



User Feedback Decisions leading to NLS-8,3

DVN 4-MAR-74 22:07 22182  
 Line Processor and XNLS Problems  
 Location: (HJOURNAL, 22182, i:w)

7a10u

I am working tonight in XNLS through the line proecessor,  
 so I am sending my problems in both directions.

7a10u1

Fragments of my origen statement are all the time  
 floating in my input text; likewise my input text runs  
 into the top lines of my file. The fragments of the  
 origien statement are, I guess, the source of ORG in  
 caps which floats up some times.

7a10u2

Sometimes when I do jump to item the screen removes a  
 middle item or two, moves the jumped-to item up to second  
 place, and waits for a recreate display before making  
 further modifications.

7a10u3

On one occasion Update File Old, prduced some kind of  
 jumble on the screen, <control=t> followed by <control=C>  
 prodcued a complete jumble including the tenex teletype  
 image, and various fragments of my file, I reset.

7a10u4

Just now it worked fine.

7a10u4a

finally some one on a TI linked to me. I hit <control=c>  
 to see more lines. That got me the teletype face plus a  
 jumbled NLS screen. I reset. Then she wanted me to try  
 something in new TNLS. I reentered WORK intending to  
 simulated terminal type TI. But I was Greated with a new  
 high in garbage. All kinds of shit like I'd not set up  
 the line procesor properly,,eg <control-c> echoed with a  
 string of chracters. I went to another terminal.

7a10u5

7a10u6

JEW -- PROTOCOLS

I'm trying to clean out the feedback file. Could you look  
 these over and not which ones have been fixed, or wont be  
 fixed?

7a11

DVN 19-JUN-74 11:57 23407

You Can't Write on Updates from Journal Files.

Message: When you update rename from a journal file to make  
 a copy to work on, the new file inherits the journal file's  
 unwritability. If then update compact to a thrird file, you  
 can write on the compacted file.

User Feedback Decisions leading to NLS-8,3

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a11a

NDM 23-MAY-74 07:45 23087  
 Bug in User Program SENDMES  
 Message: The user program SENDMES cannot send messages to Tom O'Sullivan, possibly because of the apostrophy in his name. I can neither type it in nor accept the name offered by the ident system. It blows out the line processor too,

7a11b

Comments: I assume this will also be a bug in the new system's equivalent subsystem,

7a11b1

4-JUN-74 0521-PDT MEYER: SENDMES  
 To: feedback  
 Distribution: FEEDBACK, white  
 Received at: 4-JUN-74 0536:34-PDT

7a11c

I only wrote the interface to Jim White's SENDMES. I haven't the skill nor the time to fix it. I would hope that the code does get fixed before it is made a part of the running system (in new NLS). --Dean

7a11c1

NDM 31-MAY-74 07:31 23174  
 Journal SUBCOLLECTIONS command  
 Message: In Old NLS, in the journal subcollection, I can't specify the subcollections SRI=ARC (the dash won't come out) nor NSW (I type N at it puts up NIC). Also, with each character I type, it does (on the line processor) a complete recreate display. Also, it doesn't allow backspacing,

7a11d

JDH -- FROZEN NLS  
 I'm trying to clean out the feedback file. Could you look these over and not which ones have been fixed, or wont be fixed?

7a12

3-JUL-74 2304-PDT KELLEY: there is an undeliverable mail file in my directory  
 Distribution: FERGUSON, FEEDBACK, white  
 Received at: 3-JUL-74 23:04:30

7a12a

I think it is the result of a bug in the new SNDMSG.

7a12a1

DCE 10-JUN-74 15:44 23317  
 Bug in sort process for executable text  
 Message: Sort Plex process didn't use instituted SORTMERGE program (I was using SORTREV) when executed as a command

User Feedback Decisions leading to NLS-8.3

statement via Process Command Statement (i.e it sorted in normal ordering), yet the proper use of SORTEV occurred if I executed the Sort Plex operation by hand -- no change in the status of the program buffers or program=institution assignments between these trial, Repeatable inconsistency, \*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

7a12b

JCP -- TENEX

7a13

to be done by 1 July 75

7b

ESSENTIAL TASKS:	Estimated Resources	TOTAL		
		18=20		7b1
New NLS-8 to Office-1		9		7b1a
NLS Frontend Backend Split		3		7b1b
COBOL Programmer's interface				7b1c
Make current NLS available in the NSW COBOL environment and develop a basic training package		2		7b1c1
Develop a preprocessor and an interface to a remote job entry facility		2		7b1c2
Documentation and Publication				7b1d
Training package		1		7b1d1
Interface Output Processor to special output devices			1-3 per device depending on its characteristics	7b1d2
Modifications to NLS file system expected		0	no changes	
required			to be	7b1e

to wait until after 1 July 75

7c

Done: to be documented. See <nls,mods,done>

8

Documented tasks, fixed bugs, and answered questions

> Bugs listed here are fixed. For items completed prior to these see <24104, documented>. Online documentation is located in <documentation,help,how>.

9

User Feedback Decisions leading to NLS=8.3

Output quickprint No (headers) command...

9a

=(23116,) (MDK) I would like to see Output Quickprint REFRAIN from putting its single-line, top-of-the-page identifier on any but the first page of an output quickprint listing. (Continuing to print the page number at the top or bottom of each page is an o.k. thing, however, I recommend adding the word "Page".)

9a1

The result would be an eminently more useable draft, in my opinion, and would open the door to allow some simple user programs to do quick, clean, simple formatting jobs for particular user needs without having to invoke the cumbersome Output Processor.

9a1a

This works, you can add as many characters as you like but they must all be typed in the command

9b

I think the Control Characters command in Useroptions should allow one to add more than one user-defined character for a function. That is, when I define "!" as a Ca character, <EOL> as Ca goes away. Why can't I have both (besides <control-d>)? In old NLS, I used to be able to have both (all three, or more, though I couldn't take away <control-d>). (22450,) (JMB)

9b1

JMB 25-MAY-74 17:29 23123  
Useroptions Feedback commands in TNLS  
Location: (GJOURNAL, 23123, 1:w)  
\*\*\*\*\*Note: [ ACTION ]\*\*\*\*\*

9c

Why does the Show Feedback command only show the feedback mode, when you can also set and Reset Length and Indenting in TNLS? It's confusing not to be able to find out what your status is if you've been playing with them.

9c1

My opinion is that  
length = ##  
indenting = ##  
should print underneath  
mode = -----  
for all tnlS users. (They should show the defaults if the user hasn't changed them.)

9c2

Please let me know your solution to this problem ASAP so I can document the Show Feedback command properly.

9c3

"Successful. internal structure ok"

9d

"File Verify in Progress" message should be just "Verifying

User Feedback Decisions leading to NLS-8,3

File". Actually, it is unnecessary with the ... feature.  
 However, "Good" should print out if it is not "Bad", (22175,) (KIRK)

9d1

KIRK 5-SEP-74 17:26 23921

NP for Move Edge

Message: Moving Edge to the margin should not delete the window,  
 but should save it for later use.

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9e

How has this been changed?

9f

DVN 27-AUG-74 08:57 23875

Output COM OK is a Bug

Location: (HJOURNAL, 23875, 1:W)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9f1

Last Night for the third or fourth time I mindlessly  
 committed Output COM OK. This command sends the COM output  
 to the printer instead of to a file (output to a file is  
 available as an alternative,). The printer puts out the COM  
 gibberish one-line-segment-to-a-page. Since a 10-page file  
 may easily contain a thousand line segments, the result is  
 quite a waste of paper and printer time. This option should  
 not be available.

9f1a

check (sendmail) show record with .lastname

9g

RLL disregard previous message on process command bug. Real  
 problem discovered.

12-AUG-74 11:10 (GJOURNAL, 23769, 1:W)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9h

With regard to previous fdbk message on lprocess command  
 bug/set buffer size: note problem has been cleared. Instead warn  
 people that no space should follow a literal. The real bug is  
 that the space was taken as a number. It worked fine for  
 6<space> (took it as 44) but failed on 8<space>.

9h1

RLL bug with process command using set buffer size.

12-AUG-74 10:56 (GJOURNAL, 23768, 1:W)

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9i

The set buffer size command to 8 using a process command  
 command yields a 'invalid buffer size' message. Tried several

## User Feedback Decisions leading to NLS-8,3

- times and rewrote the command several times. it works fine if don directly. (yes, i did remember the spaces between command words, spelled he command out correctly and gave a <ca> at the end. 91i
- Reset viewspecs resets to system defaults and should reset to user defined defaults. 9j
- Print Rest command uses system default viewspecs ; should use current viewspecs. 9k
- Change documentation for insert sendmail (form) (note you don't have to delete or fill out the ones you don't want). 9l
- Control-s does syntax for a command (documnt) 9m
- 13-SEP-74 2056-PDT MAYNARD: NEW Commands  
Distribution: KELLEY, vannouhuys  
Received at: 13-SEP-74 20:56:56 9n
- There are new commands in the USEROPTIONS subsystem which allow a user to define which subsystems and which user programs she wants to be attached (or loaded) at startup time.  
The Commands Are:  
Entry subsystem (BASE / PROGRAMS / SENDMAIL / ... etc.)  
defines the subsystem you enter at startup time  
Entry Program (LSEL(#oldfilelink)  
defines a user subsystem to be your entry subsystem  
Include subsystem (Base / programs ...etc)  
implies thissubsystem will be attached at startup time  
Include program LSEL(OLDFILELINK)  
implies thhis user program will be loaded at startup time (and attached if it is a subsystem)  
Exclude subsystem (Base / programs .. etc)  
removes the subsystem from startup list  
Exclude program (Base / programms ... etc)  
removes the program from the list loaded at startup time  
Show Default (Subsystems and programs)  
Reset Default (subsystems) 9n1
- check with charles for the current defaults they are changing too rapidly to try to specify now. 9n2
- 24-SEP-74 1043-PDT IRBY: protect command  
Distribution: KELLEY  
Received at: 24-SEP-74 10:43:02 9o
- now is Set Tenex Protection for file. Set public and Set private have been changed to Set NLS Protection for file.

## User Feedback Decisions leading to NLS=8,3

(actually i think protection is a noise word???), -- Charles,  
 p.s., sorry I forgot to record this in mods. also set  
 temporary is now second level and requirres an extra (really)  
 CA and will abort if user already has a PC for the file.

90l

25-SEP-74 1207-PDT LEE at OFFICE-1: Show Recognition command in  
 Useroptions Subsystem

Distribution: FEEDBACK AT ARC, feedback  
 Received at: 25-SEP-74 16:04:53

9p

There doesn't seem to be any way to Show Recognition...  
 Show R = gets you show return ring sizes  
 Show <>R = gets you the bell

9p1

(1a1) [hgl] -020- -035- Help instead of or in addition to Goto  
 Help. Make the command Help available from any subsystem Done  
 (feedback,fdbk,01104)

9q

JMB 26-JUN-74 15:38 23480

Bug in Help software

Message: Database statements preceded by a percent sign are being  
 shown and menued when they are named (they're there because I need  
 the name to be there). They're supposed to disappear when Help is  
 run. please fix, 26-JUN-74 Fixed by HGL 2 October.

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9r

JMB 27-JUN-74 16:28 23485

Bug in Help software Fixed by HGL 2 October.

Message: Database statements preceded by a right squarebracket are  
 not working (should not menu; should print all lines) when the  
 statement is named. Help only prints the first line and menus  
 it! Please fix as soon as possible. 27-JUN-74

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9s

KIRK 24-SEP-74 21:06 24050

Sendmail Number Assign command problems

Message: 1. It says "illegal string designation after assigning  
 the number and then does not show up in status. 2. After using  
 the Number Assign command and quitting out of sendmail before  
 sending the item, that number is currently lost from usage  
 forever. Correct?

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9t

3-APR-74 1144-PDT VANNOUHUYS: Compact Still Scrambls Markers

Distribution: LEE

Received at: 3-APR-74 11:44:37

9u

## User Feedback Decisions leading to NLS=8,3

when you do update compact your markers still endup at the old character position in different statements (presumably the statements that now have the old SID's), (resubmitted April 29 = (22884,) Feb 5 (21789,)

9u1

Fixed, also fixed another bug that caused markers to be deleted when they should not have been,

9u1a

RLL 11-JUL-74 20:19 23602

send-mail.pc file too long, Bug?

Message: how come my send-mail.pc file is 15 (yes 15) pages long and the .rll one page long which corresponds to the size given in th show file status command info? Is the siz info under the dir command wrong?

(resetf should do appropriate pmaps to remove all allocated pages)\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9v

KIRK 5-SEP-74 09:37 24112

NP for Move Edge command

Message: Moving Edge to the margin should not delete the window, but should save it for later use,

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9w

KIRK 30-SEP-74 14:46 24102

Reset Name delimiters command was not changed.

Message: should work off of user's specified default,

\*\*\*\*\*Note: [ ACTION ] \*\*\*\*\*

9x

26-SEP-74 11:20-PDT ENGELBART: In NLS 8.1, can't invoke Process Command

Distribution: FEEDBACK, engelbart

Received at: 26-SEP-74 11:20:32

9y

In BASE subsystem, have three commands beginning with "P", Playback, Print, and Process. Can only invoke Print (no SP) and Playback (preceding SP). In the ? listing, Process has no "<>"; it doesn't seem reachable by my normal recognition mode. Goofup?? (Me, or implementers??)

Friendly complainer, Doug

9y1

This is a funny that occurs right after doing a simulate and not thereafter,

9y2

25-SEP-74 0648-PDT LEE at OFFICE=1: ARRGH!!

Distribution: FEEDBACK AT ARC, feedback

Received at: 25-SEP-74 06:50:42

9z



User Feedback Decisions leading to NLS=8,3

Seemingly the only way to get out of print journal, print rest, and possibly other print commands in the running nls at arc is to do a CTL c, ??? Fixed to listen for control 0 ,

9z1

JEW Helping the User Keep Track of NLS Changes %NLS release date  
= date of last NLS load = file of changes loaded automatically%  
11-MAY-73 13:52 (IJOURNAL, 16376, 1:w)

9a@

The problem of NLS changing out from under the user has become a common one, and it's frustrating for users, especially those for whom NLS has become an important and regularly-used tool, to frequently wake up and find themselves at the mercy of a system that's radically different from the one they used the day before. I cite, in particular, the recent addition of 'A:'-like prompts throughout the command language.

9a@1

It seems that the communication gap is not the result of our failing to provide documentation of NLS changes, but rather that users (including myself) just don't, for some reason, go read the documentation that's provided. I propose the following as a help.

9a@2

#### NLS VERSION NUMBER

9a@3

That NLS, like the monitor and many TENEX subsystems, identify itself with a release date and version number(s) whenever the user invokes it,

9a@3a

These parameters should be faithfully (perhaps automatically) updated whenever a new NLS load is done or a patch made. This seems like an unobtrusive yet consistent handle by which the user can determine whether or not things have changed since he last looked.

9a@3a1

#### AGGRESSIVE DOCUMENTATION

9a@4

That a file containing, for each change made to the system, a brief (say, one line) description of the change, and a pointer to detailed documentation, be created each time an NLS load is done.

9a@4a

That NLS maintain in the Ident file for each user (individual ident), the date and time he last invoked NLS,

9a@4b

That each time a user enters NLS, the recorded date and time be compared to the write date of the system-change documentation file. If the user hasn't used the system

User Feedback Decisions leading to NLS=8.3

since it changed, that the file be displayed for him (no override option would be available, but the file would be brief).

9a@4c

NLS thus says to the user whenever appropriate, "Hey look, the following things within the system have changed since YOU last used it; if any of them seem to bear upon that subset of the system which YOU use, you'd better go read further about them."

9a@4d

If the documentation file were an NLS file, 'displaying' it might consist of the system's loading it in place of the user's initial file, and, in TNLS, forcing a 'Print Plex ,1' for the user. It seems to me that this would be EXTREMELY convenient for the DNLS user, for whom a menu of changes would be automatically displayed. He could quickly take the links provided to obtain detailed information about changes that affect him, and then go on about his work.

9a@4e

VIST-LOG Septmeber 12, 1974 Marc Henderson and Jim Eusebio

VISIT LOG: september 12, 1974

WHO:

Marc L. Henderson

Address: SRI - Middlefield M121 Ext. 4696 or 4697.

Associations: Assistant Executive Director, Urban and Social Systems Division, also Acting Director Statistical Analysis and Computation Department.

James W. Eusebio

Address: SRI - G193 Ext. 2427.

Associations: Programmer; Statistical Analysis and Computation Department.

REASON FOR VISIT:

To learn more about NLS and possible applications of NLS to the Urban and Social Systems Division projects.

SUMMARY OF EVENTS:

I gave a 45 minute demonstration of the system , with emphasis on those features which I thought would be most useful to their applications, Marc expressed interest in the communications tools available, and I demonstrated the journal and send-message facilities available, I also explained the use of linking and the shared screen capabilities, Jim was more interested in the systems programmig tools , so I demonstrated the Debugging tools available and our use of the TASKS file in NLS.

Following the demonstration we had a short discussion of the various ways in which their organization could make use of NLS, Before I give the details of this discussion I would like to give a brief overview of the kind of knowledge work being done in the USSD.

USSD PROJECTS:

Briefly the Statistical Analysis and Computation Department is a computer service organization for the Urban and Social Systems Division, This Division has two very large projects, SIME-DIME (Seattle Income Maintenance Experiment - Denver

VIST-LOG Septmeber 12, 1974 Marc Henderson and Jim Eusebio

Income Maintenance Experiment) and the Follow Through project,  
Both of these projects perform the following basic functions - 1d1

DATA COLLECTION - 1d1a

SIME-DIME collects interview data on participating families over time. Data is entered online from Seattle and Denver using the "Electric Interview" system which runs on the Burroughs B6700. 1d1a1

FOLLOW THROUGH - Collects demographic, test and interview data on students, parents, teachers and administrators over time in each of approximately 200 participating school districts nation wide. 1d1a2

DATA MANAGEMENT - 1d1b

The Burroughs B6700 is used by both projects for data management. Both projects are making increasing use of DMS II, the Burroughs supplied Data Management System. Both projects have similar problems dealing with complex hierarchical data structures which vary with time. 1d1b1

ANALYSIS - 1d1c

Statistical Analysis and report generation are done both on the B6700 and on the CDC 6400. Canned software packages such as SPSS, Statistical package for the Social Sciences, and the Biomedical Statistical Package are used extensively. 1d1c1

DISCUSSION: 1e

In the discussion which followed the demonstration it was generally agreed that the major problems facing these two projects can be classified into two broad categories. 1e1

The first is a classical management problem of managing such large and geographically distributed projects. We discussed the applicability of NLS and in particular the NLS communications tools to this problem. Both Marc and Jim agreed that such tools would indeed be useful to them. Their only objection was concerned with the problems involved in retraining the people to use these new tools and new methodologies implied by the tools. 1e2

This brought up the second problem area. Basically the problem is that the researchers who design the data collection and data analysis are too far removed from the data. Their only

VIST-LOG Septmeber 12, 1974 Marc Henderson and Jim Eusebio

interface to the data is through the programmers in the Statistical Analysis and Computation Department. The problem here is also a classical one, the problem of communication between a researcher who knows little about programming and the programmer who knows little about the researcher's needs and goals.

1e3

We all agreed that the best solution to this problem is to provide the researchers with the necessary tools and an appropriate interface. This led naturally to a discussion of ARC's long experience with user interfaces in general and of the Command Meta Language in particular. I then outlined our plans to separate the user interface of NLS into a front end processor.

1e4

We discussed the possibility of interfacing their software packages on both the Burroughs B6700 and the CDC 6400 to an NLS front end. They were both expressed interest in further exploration of this idea. They seemed to feel that the benefits of providing the researches with a coherent interface to the software packages of all three machines would be well worth the effort of training the researchers in new methodologies. We did not discuss either the hardware or development costs involved, however, I did point out the fact that a large percentage of the development work necessary will take place in the coming year under the NSW contract. We agreed to keep a communications channel open and to continue exploring the possible applications of ARC tools to USSD projects.

1e5

## DOCUMENTATION:

1f

I gave them both copies of Coordinated Information Services (12445) and Augmented Knowledge Workshop (14724).

1f1

NEW SYSTEM DEFAULT NAME-DELIMITERS

Name delimiter defaults have changed, effective sept, 30 1974 in XNLs 1

Current defaults are NULL NULL : 1a

This was requested by Applications but is not very useful for  
programmers because it results in all statements being named,  
and also it does not conform to sysguide conventions. 1a1

You should change your default name delimiters using the "Name"  
Command in Useroptions before creating any new files. 1b

Response to What is a simple line drawing

bob, my initial reaction to the problem of what sort of line drawings to support is that we should concentrate on categories 1 (block diagrams, flow charts, tables) and 2 (2D plotting) and should not attempt to support category 3 (3D plotting). I think this can be done so that the door is not permanently closed to 3D, but the vast majority of need at this point is in typical 2D illustrations, charts, block diagrams, and so forth,

1

Control characters in TNLS do not appear

Like they do in DNLS as in a commands branch,

1



Bug with print while simulating TNLS

In both tasker and Line processor, printing a large amount of text with viewspec w causes a bunch of what look like form=feeds.

1

Minutes from KWAC meeting 12 SEPT 74

Minutes of Architects meeting on 12 September 1974,	1
Three things to speak about:	2
1. Problems of introducing new NLS at sites	2a
What will users find most useful?	2a1
Documents:	2a2
Cue cards	2a2a
New cue-card for TNLS (useful for DNLS since language is more similar now)	2a2a1
Suggestion by Bob S.: use plastic (expensive). The point is to have a more durable card,	2a2a1a
The matrix is not desirable. (It will not be in new version),	2a2a1a1
wish list: a special card for DNLS,	2a2a1a2
Viewspect cue-cards	2a2b
Yes, we are reordering new viewspect cue-cards	2a2b1
someone suggested that it be a few points larger (both for looking at and for including more info.)	2a2b2
Command summary guide:	2a2c
Glossary	2a2d
includes: how to use NLS (basic concept in special order) will print it out in form of dictionary format,	2a2d1
Online version will not be too readable,	2a2d2
Primer	2a2e
Help database	2a2f
about 170 pages, created command language to search database and a sophisticated data structure.	2a2f1
We chose to write database first then reference guide , not sure that is the way to do it ,	2a2f2

## Minutes from KWAC meeting 12 SEPT 74

Special documents:	2a2g
output users guide	2a2g1
line processors guide	2a2g2
calculator guide	2a2g3
dex user guide	2a2g4
user programs guide	2a2g5
journal (sendmail)	2a2g6
Courses guides	2a2h
cluster of commands will be available to make training easier,	2a2h1
it would be nice to use vernacular on one side and the NLS version in the other	2a2h2
Question mark facility	2a2i
A list of old version commands versus new commands	2a2j
Suggestions:	2a3
A guide for formulating CML programs,	2a3a
The most productive work on computer and leave training to hardcopy, This is to be weighted against the effective way to teach,	2a3b
Another consideration: is our aim to do away with people?	2a3b1
User guides directory showing latest update and which are old versions	2a3c
A document that will tell all new changes and how to do it the new way before NLS8 comes up,	2a3d
Questions:	2a4
will there be training guides that will not need a teacher (i.e. stand alone)?	2a4a
Argument:	2a5

Minutes from KWAC meeting 12 SEPT 74

Whether to have both systems going for an extended period, 2a5a

People would accept the bugs etc. If it was billed as a test for a month or so. counter argument: people would not use it. 2a5a1

What about interference having both and using both, 2a5a2

another idea: have a retrospect and NLS8. This might be better than a preview and NLS7. Also have message count down when each system will disappear. 2a5a3

Important point is to quickly change everyone over to NLS8. 2a5a4

Maybe should be different for different groups: clearly for new members. 2a5a5

Response time problem when both systems are running might be the biggest factor. 2a5a6

RLL: opposed to movable dates on new service switch, etc. 2a5a7

FGB: two weeks of preview and NLS7/ 2 wks of NLS8 and retrospect/ 2 wks of nls8 and optional retrospect. Then NLS7 no more. 2a5a8

Stan: ARPA should be keyed on. Connie is strong advocate of keeping both going for some time. 2a5a9

Have to make it clear that this will be one large transition 2a5a10

JCN: think will always have complaints, but most will go along with the big change if not dragged on. 2a5a11

JCN: lots of cpu power: could be use for training which would put a greater load on system. Say after 5 pm EST. 2a5a12

Connie: could we use the ARC machine for awhile during the training. 2a5a13

JCN: must do negotiating with ARPA. 2a5a13a

other suggestions: 2a5a14

Try not running heavy subsystems [say BSYS, Output Processor, JOVIAL (RADC)] during peak hours. 2a5a14a

Minutes from KWAC meeting 12 SEPT 74

- Split shift during the month switch for some users, 2a5a14b
- We should definitely find out how much more of a load it will actually be when both version are running, 2a5a15
- JCN: will write up the procedure send it around, gather comments, and then that will be it, 2a5a16
- Training: 2a6
  - The real challenge (in Norton's estimate) is the people who have experienced not those who have are complete novices, Each group of people needs different documents, 2a6a
  - Introduction to NLS8 2a6b
    - First week
    - Next month
    - Next quarter
    - Infinity 2a6b1
  - Starting next week NLS8 will be used in training. What implications does this mean for the others, 2a6c
    - The new user will not be upset a few bugs 2a6c1
    - more trouble for sites like ARPA, 2a6c2
  - Have message appear not only at EXEC level but also after one goes into NLS (with count down), 2a6d
- 2. KWAC as a community what will happen in the next few months, 2b
  - Next meeting: 2b1
    - Date: 2b1a
      - January or February 2b1a1
    - Place: 2b1b
      - Menlo Park or a new site (warm climate), 2b1b1
    - Agenda: 2b1c
      - What the new ones (KWAC-ers) have experienced, 2b1c1
      - Feedback in new NLS8 2b1c2

Minutes from KWAC meeting 12 SEPT 74

- Possibly some workshops on specific problems, 2b1c3
- Expect 3 or 4 more architects by January 2b2
- Could we have some written letter come out ever so often? 2b3
- FGB volunteered to act as an editor for an informal news service, 2b3a
- Could we have some minutes (notes) of what was said here (at this KWAC meeting); RADC experience for example? 2b4
- 3. Plan and problems due to expansion of utility 2c
- One or two computers: (JCN) 2c1
- Must make decision on computer configurations, communications, etc, in the next 4 to 6 weeks, 2c1a
- Because of the many East coast users and the cost of transmission, an Office 2 in the East might be nice, 2c1b
- But cost of operation more since need a full set of operators space, etc, 2c1c
- Not clear we have enough users for two medium size machines, 2c1d
- However it might be easier if we anticipate others later, 2c1e
- ARC machine disappearing so ARC people will be using the utility, 2c1f
- Pricing considerations are under consideration, 2c1g
- For fair pricing of service, for encouraging use during non prime times, etc, 2c1g1
- The easiest and most effective means to cut the cost is to use the machine during off hours, Hence West coast users have been and will be sought, 2c1g2
- The last 6 months of FY75 the Office-1 computer will be more heavily used if all the users now on ARC (NSW users) stay, Hence there must be a second machine, 2c2
- Facility, prices, services, volume, staff = what a slot gets one, 2c3
- JCN: The price will be still at the same level, 2c4

Minutes from KWAC meeting 12 SEPT 74

There is no longer any funding for responding to suggestions on improving NLS. 2c5

Would be nice to have some support for such development, say one or two man years worth. 2c5a

Members of the Utility 2c6

Originally RADC, ARPA, BELL 2c6a

Total 17 slots. 2c6b

Then SRI and BRL 2c6c

Hudson institute 2c6d

NSRDC 2c6e

MIT-Seismic 2c6f

ETS 2c6g

Now 22 slots sold. 2c6h

Only good lead for Westcoast user is AFAA(Air Force Auding Agency). 2c6i

NSA 2c6j

NIOSH 2c6k

OSHA 2c6l

IBM (Gaithersburg) 2c6m

DCA 2c6n

NBS 2c6o

DOT 2c6p

Now talking to non DOD agencies. 2c6q

Network Graphics Protocol Info

Jon: Bob Sproull just came out with a network graphics protocol document. Maybe you should call or sndmsg him for details. vint



NLS 8 is released

The NLS 8 system that is up now represents its released form. Development must now move on to its other NSW obligations. Its a good system and will evolve. Suggestions for improvements should be sent to feedback or fdbk but can only be looked at in the future. They will not get lost and are sincerely requested. Those that tie in with NLS directions coming out of the trip EKM HGL and I are taking will get acted on sooner and these directions will be published. Bugs will get fixed and have priority relative to how they affect load and client activities.

The journey to NLS 8 has been long and opens up whole new system and user feature horizons. I personally want to thank all the software group for the really dedicated hard work during the past few months. Applications now has a challenging job of packaging and presenting a powerful sophisticated set of capabilities. Within resource limits Development will help as much as possible. The documentation group has also been struggling hard to keep up with a constantly shifting target and have done a good job and maintained cool in some very frustrating times and I also want to thank them for their strong efforts. Thanks also to everyone else for trying things sending suggestions and keeping cool and working with us these past months. Thanks to all Dick

Some night late last week I had a dream about you which I did not remember, something involving Tennis. Saturday night the dream group camped out together. Again I dreamed about you, something involving Tennis, but again I did not recall more. Sunday night I dreamed I was standing by a checkout desk in a supermarket in Berkeley. A tall, slightly paunchy man with a vest and red curls slicked down over his forehead was having a conversation with the clerk, "...and I happened to have a nobel prize in that field but they did not want me to offer a course in it." Somehow I knew the course was in land use planning and the refusal of the university had to do with a power struggle between Clark Ker (note suggestion of clerk) and Governour Brown. "They didn't put it in the catalog but I had already told a few people and some people registered anyway." There is an implication the class is meeting at his house. "Did you have any students?" the clerk asked. "About 10,000" he replied. I thought of Abelard.

1

Then I was outside, it was night, and I am in a phone booth. I telephone you. First I explain to you that I had these dreams about you that I no longer recall, just as I explained above. Then I ask what sort of grades you are getting in your course in land use planning. You reply something to the effect that you're doing alright. At that moment I see you coming out of the grocery store and going to your car. Surprised, I ask how I can be talking to you on the phone and see you going out to your car. You reply that you have taken the same course years ago and have gone out to your car to see if your grades then were good enough that you don't have to worry about grades now.

2

I have put the journal items in question in my directory at office 1 as x22863 and x23590 and at the same time asked Martinez to check that they are in the usual place in the journal directories.

3

blap

things i didn't get doen for nls-8

the following is a list of things that were (are) on my todo list for nls-8, due to time pressures and relative priorities they did not get done, i am distributing this in the hopes that maybe others might have some time in the future to implement them,

provide a meta-language to implement an interactive process  
commands ability

implement what i call mouse button macro strings:

this associates a string (kept in user-options) for each of the keyset chords associated with mouse case-shift 101, thus when a user hits a chord on the keyset while mouse buttons 101 are down, it would be equivalent to entering the string associated with that chord,

fix the bug associated with improper prompting if both level-adjust and optional prompting are turned off,

this bug should go away when we rewrite the interpreter,

implement the following commands:

subsystem XXX: Detach

subsystem BASE:

Undelete Modifications

\* and linefeed in DNLS

Copy, Show, and Expunge Archive Directory

Retreive, Delete, and Undelete Archive File

Show Who is on

Show Where is user

1

1a

1b

1b1

1c

1c1

1d

1d1

1d2

1d2a

1d2b

1d2c

1d2d

1d2e

1d2f

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## REVISED LIAISON LIST

Two Network Liaison Lists are now available at OFFICE=1 for network use:

<NETINFO>LIAISON.TXT = containing a listing of names addresses, phone numbers, etc., suitable for producing mailing labels with some modification.

<NETINFO>LIAISON-SNDMSG.TXT = containing a continuous listing of sndmsg addresses suitable for online group distribution of messages to Liaison.

For your information, the NIC maintains the 'official' Arpanet Liaison List, and additions or changes should be verified by contacting FEINLER@SRI-ARC. Since any network user may copy these lists, other versions may be in circulation. Consequently, the NIC disclaims any responsibility for lists other than those contained in the files mentioned above. I also urge you to check the NIC list frequently for recent changes.

NOTE: Some of you have been using Alex McKenzie's very useful version tailored toward TENEX users. There have been several changes received at the NIC just recently due to the influx of Resource Notebook information, so you may want to update that version, if you have one, or check with Alex.

These liaison lists may be FTPed by any network user. I hope you will make this known to other users at your sites. (NOTE: If needed, FTP may be accessed at OFFICE=1 by connecting to OFFICE=1, then typing:

[@]nicquest <SP> arpa <SP> <CR>

[@]ftp <CR> (There is a 'help' feature available at this point.)

## THE SRI-ARC NETWORK JOURNAL SYSTEM

Many of you have asked whether the SRI-ARC Network Journal System is available for handling RFC and Group-Note online distribution. (SEE NIC 22383, RFC 629 distributed Mar, 27, 1974.) The system is available at present, but its use for distributing Network dialog is still being reviewed. I will forward any decisions or new information to you that I receive on this topic.

## THE RESOURCE HANDBOOK

The Resource Handbook is moving along - not quite as fast as I had

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hoped, but moving. The response from all of you was great. Thanks a lot. Some servers had particularly long write-ups or extensive changes, and were not able to meet my rather stringent deadlines. I am still aiming for a Fall publication date, and hope that this will not slip too far. Again thanks for the prompt response.

4a

#### ARPANET DIRECTORY ERRORS

5

Due to a variety of problems with the identfile data several important network individuals were inadvertently omitted - in particular, the whole BBN-NET group, Col. David C. Russell of ARPA NMRO, and Prof. Feigenbaum at Stanford. I regret these omissions and ordinarily would publish an addendum. However, I have not been able to manage this under the current workload. If others have been omitted, please let me know.

5a

#### HARDCOPY DISTRIBUTION

6

NIC does not officially provide hardcopy distribution of any documents other than the Arpanet Directory and the Resource Handbook. However, we still have the reference set of NIC documents here, and I realize many of you have items missing from the Station Agent and Liaison collections you have received in the past. Therefore, I will attempt to supply single papers that are needed IF copies are available and IF I can get to it. I want to emphasize that this is unofficial service and therefore very low on my priority stack. Group-notes should be requested through the Group Co-ordinators listed on p.47 of the June 1974 Arpanet Directory and NIC will ONLY honor requests from Co-ordinators for these items - again on an unofficial basis and if available.

6a

#### PROTOCOLS

7

Protocol Notebooks are no longer available as the supply is exhausted. Currently there is no mechanism for handling distribution of protocols to my knowledge. Some alternative approaches are being considered, but to date no decisions have been made of which I am aware; therefore, maintenance and distribution of Protocol Notebooks are in limbo. Again I will attempt to supply occasional, single protocols on an unofficial, very low-key basis until some other mechanism is evolved.

7a

#### STATION AGENTS

8

The group "station Agent" is no longer being maintained by the NIC. The purpose of the station agent was to maintain the NIC-distributed station agent collection of hardcopy documents for local users and to provide host-generated documents to the NIC.

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and this activity is no longer being supported. This means that you as the Network Technical Liaison are the only 'official' host contacts for Network users, and the official liaison to the NIC for host-related information.

8a

## NIC VACATION SCHEDULE

9

I will be away from SRI-ARC from Aug. 7th until approximately Sept 15th combining vacation with attendance of the ICC meeting in Stockholm and the ARPA meeting in Washington, D. C. During that time the NIC will be essentially unattended since I am the only person handling NIC matters currently. Mil Jernigan (JERNIGAN@SRI-ARC) will check my message file but most things will be held until I return. Hope to see some of you along the way. Will contact all of you when I return. Best regards, Jake

9a

P.S. If any of you wish to FTP this rather lengthy memo, you may do so by using pathname <NETINFO>NICNOTES.TXT from OFFICE=1.

10

## Journal Confounds Bugs with Dreams

I am a member of a group exploring possibilities of controlling dreams. One of the techniques is to tell anyone who appears in your dreams about the dream. Recently Elizabeth Michael appeared in some of my dreams. Since she was travelling and I had to send her some information about demonstration files anyway, I reported my dream to her in a journal item. In one of its rare moments of humour the journal gave the same name (24170) to two items, the dream and an item by Jeanne Beck reporting a bug. The dream has the higher version number so people loading the item get the dream. Try (journal,24170,nls;1,1:w) if you want to learn about the bug.

1



To FDBK, name recognition problems in Journal files

The Journal files don't seem to be adjusted for the new name-designation conventions. For instance, the following link was delivered in a Journal citation, and doesn't work because in that file the "(J24123)" doesn't get recognized as a name, (JOURNAL, JRNL22, J24123)

Current alternatives should include control X

It would really be neat for the new users if control X was included in the current alternatives, since it is one,

1

sug: show current subversion of NLS date,

It would be nice to be able to find out or print at the beginning of a nls session the current subversion of NLS. The date and time would be most helpful since I believe there is no numbering scheme, this would help in isolating bugs to a particular subversion and be a backup in notifying people of new versions. Make the method by which this is done easy (e.g., show current subversion date, ) Rob

1

## Principles for demos

As important as demos are to our future and the image the world has of ARC and its work, I think we need to formulate some principles to guide decision making in times of demos and crises. To get the ball rolling, I would suggest the following principles:

- 1) A demo full of surprises and features that may not work is much worse than the embarrassment of postponing or cancelling a demo because of system componentry failure,

If one proceeds as was done earlier this week to try to patch together a system so that a demo can go as scheduled, one is asking for the sky to fall in. Such failure demos leave a very bad taste in the mouth of those whom you wished to impress and could cause our funding sources to become as dry as a dessert,

- 2) It is a very bad practice to bring up new systems just before a demo,

I was asked to fix several problems for the most recent demo and did so. In doing this, I ran the risk of introducing new and even more difficult problems (perhaps caused by code added by other programmers that has not yet been debugged). I think it is much better to attempt to work around known problems rather than stumble upon new ones in the middle of a demo. Severe operational problems should of course always be fixed as soon as is feasible,

system load should be kept light by limiting the use of the system, not by SETMRP priority setting gimmicks that do not work very satisfactorily,

Important demos should be scheduled well in advance and problems such as system load should be handled administratively, perhaps through changes to the group allocation,

Appropriate system personnel should be on hand at the time of the demo to handle any last minute emergency requests from the people giving the demo,

a demo site should be thoroughly debugged and tuned before the demo is given. Buffer sizes and such things should be adjusted well in advance of the demo,

Development Meeting on Monday

o Jim, Doug feel free to come and bring anybody like robert or JHB  
who you think would benefit, Dick

Development Meeting on Monday

I would like to have a meeting of development at 3:00 on Monday the 14th to review JEW, JBP trip and ours and get organized for next couple of months.

Dean's Priorities

I cast my vote for a revised OP users' Guide first, we have about 30 of these guys left and give them out almost daly. (We have a good supply of a slightly defective printing of the same version.) Second the bibliographic subsystem,

more things to be done in nls=8

the file manipulation commands in nls=8 (copy, move, delete, undelete) should be changed so that they display to the user the results of a manipulation on a file on a file by file basis, rather building up one large string and displaying the results of the entire command at the end.

1



## Bug in NLS 's Help database

When you ask for Protect in Help (when in NLS) it prints the syntax for the obsolete Protect command. This should go away; perhaps there should be a link to the Set Tenex command. [There is no function statement for Protect, just the syntax statement; I guess this problem will go away when you delete the syntax branch, but in the meantime it's confusing]

1

more answers to ISI questions about NLS and UNDO, max statement size, and L10

1) statement boundary problems:

1

max statement size = 2000 characters. Essentially all NLS users use statements to contain paragraphs. The resulting upper bound on paragraph size seems to cause no complaints, since most people agree that paragraphs that are longer than 2000 characters are probably badly organized anyway. Using them to contain at least sentences would seem much more reasonable from a space efficiency standpoint than using them to contain lines.

1a

replacing text across statement boundaries will present a problem only in figuring out what part of the new text to put in each statement. Searches will, indeed, not match across statement boundaries. However, since this would most likely also violate your rules for matching across sentence boundaries, this might not really be a problem.

1b

The reason for the 2000 character limit is, of course, that a statement lives in a TENEX page of 512 words. It might be possible to implement an extension=block facility to allow a statement to fit in more than one page, but I don't know how hard this would be.

1c

2) undo:

2

One approach that seems reasonable from our standpoint is for the undo facility to be implemented within core-nls. There are two possible implementations here, both of which call for the maintenance of a history list for each user (a list of his N most recent edits, say), perhaps as part of his profile or perhaps as a separate file or perhaps in core -- evaporating at the end of a session (I don't like that one much). Both implementations would use L10 and involve modifications to NLS source code:

2a

NOTE: the history list cannot be kept with each nls file since the user can freely edit across file boundaries.

2a1

NOTE: inside the nls file system we use a ring structure to represent the hierarchical structure. Each node in the file is therefore represented by a ring element. Each ring element points to a data block elsewhere in the file that contains the text or whatever that is associated with the node (this is being expanded to point to a list of data blocks, each typed and each containing different types of data such as graphics, special formats, tables, matrices, and someday voice).

2a2

Implementation 1: everything in the history list file

2a3

more answers to ISI questions about NLS and UNDO, max statement size, and L10

structural changes 2a3a

record the original state of the structure or the commands needed to reconstruct it in the history list, 2a3a1

textual changes 2a3b

copy the original text to the history list before the edit is made or record the commands and operands needed to reconstruct the original state, 2a3b1

Implementation 2: history list and nls file changes 2a4

structural changes 2a4a

record the original state of the structure or the commands needed to reconstruct it in the history list. If a structure was deleted within the nls file being edited, do not reuse the structure elements, undoing can then simply link the structure back into the correct place in the structure, 2a4a1

textual changes 2a4b

record the location of the data block containing the pre-edited text. The edit will cause a new text block to be used for the edited text, the old text block is not reused, so that an undo can simply link it back into the structure element, original text to the history list before the edit is made, 2a4b1

The first implementation is simpler but less efficient, since things end up getting copied to the history list. The second is more work but is more efficient since things just hang around in unreclaimed file storage until they are finally not undoable any more. I feel that either implementation would prove satisfactory and both involve a reasonable small and well isolated portion of NLS, 2b

For example, whenever the text of a statement is changed it is copied to a workspace, changed, and then put back into the file by one routine called ESC. Thus, one can simply change ESC to save the original text before replacing it by the new text, 2b1

Saving the state before structural edits may involve changes to as many as six routines, at least three of which I can think of off hand, 2b2

more answers to ISI questions about NLS and UNDO, max statement size,  
and L10

3) L10:

3

L10 is a block structured, procedure oriented system programming language. It is used and supported by ARC. An L10/11 is nearly completed, which is L10 for the PDP-11. Since we developed it (in 1970), we feel that it is a pretty good language. I will send you documentation and examples in the U.S. mail. BBN, MCA, and Dave Retz are looking at it as a possible language, but I have no idea what their opinion is of it. Since I know little of the BLISS runtime environment, I cannot say how compatible it would be with L10. In fact, I don't understand why that is an interesting question since the L10 code would run within the NLS environment, not within BLISS. I would expect that to accomplish what was described in your earlier questions and your editor documentation, would require that perhaps 5 to 10 fairly simple routines be written in L10.

3a

More last-minute mods to NLS-8

Since "Jump (to) File Named TYPEIN" is essentially the same thing as "Jump (to) File <SPACE> TYPEIN", and "Jump (to) File <SPACE> BUG" is more easily done with "Jump (to) File BUG" and <SPACE> is a non-intuitive, inconsistent "commandword", the following things should have been done when the Jump to Name command was added: ALT should have been armed when specifying the FILE entity by TYPEIN. The "Jump (to) File <SP>" command should be deleted. Charles agrees these changes should be made, so I updated the help information accordingly when I added the New command.

1

Viewspec Cards: COM formatted

Since the directives that the journal put in will screw up this file (formatted to 1/1000"), you must create your own work file from what was originally my file. I.e, copy from my origin on into a new file. DO NOT PRINT THE JOURNAL FILE DIRECTLY.

Viewspect Cards: COM formatted

VIEWSPCS	ARC 7/1/73	
a	show one level less	1a
b	show one level more	1b
c	show all levels	1c
d	show first level only	1d
e	referenced statement level	1e
f	recreate display	1f
g	show branch only	1g
h	show all branches	1h
i	show content passed	1i
j	show all content	1j
k	discard until first pass	1k
l	show plex only	1l
m	statement numbers/SIDs on	1m
n	statement numbers/SIDs off	1n
o	frozen statements on	1o
p	frozen statements off	1p
q	show one line less	1q
r	show one line more	1r
s	show all lines	1s
t	show first lines only	1t
u	no defer display	1u
v	defer recreate display	1v
w	show all lines, all levels	1w
x	one line, one level	1x

## Viewspec Cards; COM formatted

y	blank lines on	1y
z	blank lines off	1z
A	level indenting on	1a@
B	level indenting off	1aa
C	show statement names	1ab
D	don't show statement names	1ac
E	paginate	1ad
F	don't paginate	1ae
G	statement numbers right	1af
H	statement numbers left	1ag
I	show SIDs	1ah
J	show statement numbers	1ai
K	show statement signatures	1aj
L	don't show statement signatures	1ak
O	user sequence generator on	1al
P	user sequence generator off	1am
VIEWSPECs	ARC 7/1/73	2
a	show one level less	2a
b	show one level more	2b
c	show all levels	2c
d	show first level only	2d
e	referenced statement level	2e
f	recreate display	2f
g	show branch only	2g
h	show all branches	2h



## Viewspec Cards: COM formatted

i	show content passed	2i
j	show all content	2j
k	discard until first pass	2k
l	show plex only	2l
m	statement numbers/SIDs on	2m
n	statement numbers/SIDs off	2n
o	frozen statements on	2o
p	frozen statements off	2p
q	show one line less	2q
r	show one line more	2r
s	show all lines	2s
t	show first lines only	2t
u	no defer display	2u
v	defer recreate display	2v
w	show all lines, all levels	2w
x	one line, one level	2x
y	blank lines on	2y
z	blank lines off	2z
A	level indenting on	2a@
B	level indenting off	2aa
C	show statement names	2ab
D	don't show statement names	2ac
E	paginate	2ad
F	don't paginate	2ae
G	statement numbers right	2af

## Viewspec Cards; COM formatted

H	statement numbers left	2ag
I	show SIDs	2ah
J	show statement numbers	2ai
K	show statement signatures	2aj
L	don't show statement signatures	2ak
O	user sequence generator on	2al
P	user sequence generator off	2am
VIEWSPECS		
	ARC 7/1/73	3
a	show one level less	3a
b	show one level more	3b
c	show all levels	3c
d	show first level only	3d
e	referenced statement level	3e
f	recreate display	3f
g	show branch only	3g
h	show all branches	3h
i	show content passed	3i
j	show all content	3j
k	discard until first pass	3k
l	show plex only	3l
m	statement numbers/SIDs on	3m
n	statement numbers/SIDs off	3n
o	frozen statements on	3o
p	frozen statements off	3p
q	show one line less	3q

Viewspec Cards: COM formatted

r	show one line more	3r
s	show all lines	3s
t	show first lines only	3t
u	no defer display	3u
v	defer recreate display	3v
w	show all lines, all levels	3w
x	one line, one level	3x
y	blank lines on	3y
z	blank lines off	3z
A	level indenting on	3a@
B	level indenting off	3aa
C	show statement names	3ab
D	don't show statement names	3ac
E	paginate	3ad
F	don't paginate	3ae
G	statement numbers right	3af
H	statement numbers left	3ag
I	show SIDs	3ah
J	show statement numbers	3ai
K	show statement signatures	3aj
L	don't show statement signatures	3ak
O	user sequence generator on	3al
P	user sequence generator off	3am
VIEWSPECS		ARC 7/1/73
a	show one level less	4a

## Viewspec Cards: COM formatted

b	show one level more	4b
c	show all levels	4c
d	show first level only	4d
e	referenced statement level	4e
f	recreate display	4f
g	show branch only	4g
h	show all branches	4h
i	show content passed	4i
j	show all content	4j
k	discard until first pass	4k
l	show plex only	4l
m	statement numbers/SIDs on	4m
n	statement numbers/SIDs off	4n
o	frozen statements on	4o
p	frozen statements off	4p
q	show one line less	4q
r	show one line more	4r
s	show all lines	4s
t	show first lines only	4t
u	no defer display	4u
v	defer recreate display	4v
w	show all lines, all levels	4w
x	one line, one level	4x
y	blank lines on	4y
z	blank lines off	4z

## Viewspec Cards: COM formatted

A	level indenting on	4a@
B	level indenting off	4aa
C	show statement names	4ab
D	don't show statement names	4ac
E	paginate	4ad
F	don't paginate	4ae
G	statement numbers right	4af
H	statement numbers left	4ag
I	show SIDs	4ah
J	show statement numbers	4ai
K	show statement signatures	4aj
L	don't show statement signatures	4ak
O	user sequence generator on	4al
P	user sequence generator off	4am

## VIEWSPECS

ARC 7/1/73

5

a	show one level less	5a
b	show one level more	5b
c	show all levels	5c
d	show first level only	5d
e	referenced statement level	5e
f	recreate display	5f
g	show branch only	5g
h	show all branches	5h
i	show content passed	5i
j	show all content	5j

## Viewspec Cards; COM formatted

k	discard until first pass	5k
l	show plex only	5l
m	statement numbers/SIDs on	5m
n	statement numbers/SIDs off	5n
o	frozen statements on	5o
p	frozen statements off	5p
q	show one line less	5q
r	show one line more	5r
s	show all lines	5s
t	show first lines only	5t
u	no defer display	5u
v	defer recreate display	5v
w	show all lines, all levels	5w
x	one line, one level	5x
y	blank lines on	5y
z	blank lines off	5z
A	level indenting on	5a@
B	level indenting off	5aa
C	show statement names	5ab
D	don't show statement names	5ac
E	paginate	5ad
F	don't paginate	5ae
G	statement numbers right	5af
H	statement numbers left	5ag
I	show SIDs	5ah

## Viewspec Cards: COM formatted

J	show statement numbers	5a1
K	show statement signatures	5aj
L	don't show statement signatures	5ak
O	user sequence generator on	5a1
P	user sequence generator off	5am
VIEWSPECS		
	ARC 7/1/73	6
a	show one level less	6a
b	show one level more	6b
c	show all levels	6c
d	show first level only	6d
e	referenced statement level	6e
f	recreate display	6f
g	show branch only	6g
h	show all branches	6h
i	show content passed	6i
j	show all content	6j
k	discard until first pass	6k
l	show plex only	6l
m	statement numbers/SIDs on	6m
n	statement numbers/SIDs off	6n
o	frozen statements on	6o
p	frozen statements off	6p
q	show one line less	6q
r	show one line more	6r
s	show all lines	6s

## Viewspec Cards: COM formatted

t	show first lines only	6t
u	no defer display	6u
v	defer recreate display	6v
w	show all lines, all levels	6w
x	one line, one level	6x
y	blank lines on	6y
z	blank lines off	6z
A	level indenting on	6a@
B	level indenting off	6aa
C	show statement names	6ab
D	don't show statement names	6ac
E	paginate	6ad
F	don't paginate	6ae
G	statement numbers right	6af
H	statement numbers left	6ag
I	show SIDs	6ah
J	show statement numbers	6ai
K	show statement signatures	6aj
L	don't show statement signatures	6ak
O	user sequence generator on	6al
P	user sequence generator off	6am
VIEWSPecs	ARC 7/1/73	7
a	show one level less	7a
b	show one level more	7b
c	show all levels	7c



## Viewspec Cards: COM formatted

d	show first level only	7d
e	referenced statement level	7e
f	recreate display	7f
g	show branch only	7g
h	show all branches	
i	show content passed	7i
j	show all content	7j
k	discard until first pass	7k
l	show plex only	7l
m	statement numbers/SIDs on	7m
n	statement numbers/SIDs off	7n
o	frozen statements on	7o
p	frozen statements off	7p
q	show one line less	7q
r	show one line more	7r
s	show all lines	7s
t	show first lines only	7t
u	no defer display	7u
v	defer recreate display	7v
w	show all lines, all levels	7w
x	one line, one level	7x
y	blank lines on	7y
z	blank lines off	7z
A	level indenting on	7a@
B	level indenting off	7aa

Viewspec Cards: COM formatted

C	show statement names	7ab
D	don't show statement names	7ac
E	paginate	7ad
F	don't paginate	7ae
G	statement numbers right	7af
H	statement numbers left	7ag
I	show SIDs	7ah
J	show statement numbers	7ai
K	show statement signatures	7aj
L	don't show statement signatures	7ak
O	user sequence generator on	7al
P	user sequence generator off	7am

VIEWSPecs

ARC 7/1/73

8

a	show one level less	8a
b	show one level more	8b
c	show all levels	8c
d	show first level only	8d
e	referenced statement level	8e
f	recreate display	8f
g	show branch only	8g
h	show all branches	8h
i	show content passed	8i
j	show all content	8j
k	discard until first pass	8k
l	show plex only	8l

Viewspec Cards: COM formatted

m	statement numbers/SIDs on	8m
n	statement numbers/SIDs off	8n
o	frozen statements on	8o
p	frozen statements off	8p
q	show one line less	8q
r	show one line more	8r
s	show all lines	8s
t	show first lines only	8t
u	no defer display	8u
v	defer recreate display	8v
w	show all lines, all levels	8w
x	one line, one level	8x
y	blank lines on	8y
z	blank lines off	8z
A	level indenting on	8a@
B	level indenting off	8aa
C	show statement names	8ab
D	don't show statement names	8ac
E	paginate	8ad
F	don't paginate	8ae
G	statement numbers right	8af
H	statement numbers left	8ag
I	show SIDs	8ah
J	show statement numbers	8ai
K	show statement signatures	8aj

Viewspec Cards: COM formatted

L	don't show statement signatures	8ak
O	user sequence generator on	8al
P	user sequence generator off	8am
IEWSPECS	ARC 7/1/73	9
a	show one level less	9a
b	show one level more	9b
c	show all levels	9c
d	show first level only	9d
e	referenced statement level	9e
f	recreate display	9f
g	show branch only	9g
h	show all branches	9h
i	show content passed	9i
j	show all content	9j
k	discard until first pass	9k
l	show plex only	9l
m	statement numbers/SIDs on	9m
n	statement numbers/SIDs off	9n
o	frozen statements on	9o
p	frozen statements off	9p
q	show one line less	9q
r	show one line more	9r
s	show all lines	9s
t	show first lines only	9t
u	no defer display	9u

## Viewspec Cards: COM formatted

V	defer recreate display	9v
W	show all lines, all levels	9w
X	one line, one level	9x
Y	blank lines on	9y
Z	blank lines off	9z
A	level indenting on	9a@
B	level indenting off	9aa
C	show statement names	9ab
D	don't show statement names	9ac
E	paginate	9ad
F	don't paginate	9ae
G	statement numbers right	9af
H	statement numbers left	9ag
I	show SIDs	9ah
J	show statement numbers	9ai
K	show statement signatures	9aj
L	don't show statement signatures	9ak
O	user sequence generator on	9al
P	user sequence generator off	9am

Viewspect Cards: COM formatted

MOUSE and KEYSSET, Codes and Cases

10

Mouse

ARC 7/1/73

Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3-

10a

Keypad Code

10b

00000 CD BC BW (CA=001)

10c

00001 a A ! show one level less

10d

00010 b B " show one level more

10e

00011 c C # show all levels

10f

00100 d D \$ show first level

10g

00101 e E % referenced stmt level

10h

00110 f F & recreate display

10i

00111 g G \* show branch only

10j

01000 h H ( show all branches

10k

01001 i I ) show content passed

10l

01010 j J @ show all content

10m

01011 k K + discard until 1st pass

10n

01100 l L = show plex only

10o

01101 m M \* statement nums/SIDs on

10p

01110 n N / stmt nums/SIDs off

10q

01111 o O \* frozen statements on

10r

10000 p P 0 frozen statements off

10s

10001 q Q 1 show one line less

10t

10010 r R 2 show one line more

10u

10011 s S 3 show all lines

10v

10100 t T 4 show first lines only

10w

Viewspec Cards: COM formatted

10101	u	U	5	no defer display	10x
10110	y	V	6	defer recreate display	10y
10111	w	W	7	all lines, all levels	10z
11000	x	X	8	one line, one level	10a@
11001	y	Y	9	blank lines on	10aa
11010	z	Z	=	blank lines off	10ab
11011	,	<	[	(nothing)	10ac
11100	.	>	]	(nothing)	10ad
11101	;	:	-	(nothing)	10ae
11110	?	\	ALT	centerdot	10af
11111	SP	TAB	CR	(nothing)	10ag

MOUSE and KEYSSET, Codes and Cases

11

Mouse

ARC 7/1/73

Buttons: 000 010 100 110  
 Case: =0= =1= =2= =3=

11a

Keyset Code

11b

00000 CD BC BW (CA=001)

11c

00001 a A ! show one level less

11d

00010 b B " show one level more

11e

00011 c C # show all levels

11f

00100 d D \$ show first level

11g

00101 e E & referenced stmt level

11h

00110 f F & recreate display

11i

00111 g G ' show branch only

11j

01000 h H ( show all branches

11k

01001 i I ) show content passed

11l

Viewspec Cards: COM formatted

01010	j	J	@	show all content	11m
01011	k	K	+	discard until 1st pass	11n
01100	l	L	=	show plex only	11o
01101	m	M	*	statement nums/SIDs on	11p
01110	n	N	/	stmtnt nums/SIDs off	11q
01111	o	O	"	frozen statements on	11r
10000	p	P	0	frozen statements off	11s
10001	q	Q	1	show one line less	11t
10010	r	R	2	show one line more	11u
10011	s	S	3	show all lines	11v
10100	t	T	4	show first lines only	11w
10101	u	U	5	no defer display	11x
10110	v	V	6	defer recreate display	11y
10111	w	W	7	all lines, all levels	11z
11000	x	X	8	one line, one level	11a@
11001	y	Y	9	blank lines on	11aa
11010	z	Z	=	blank lines off	11ab
11011	,	<	[	(nothing)	11ac
11100	.	>	]	(nothing)	11ad
11101	;	!	-	(nothing)	11ae
11110	?	\	ALT	centerdot	11af
11111	SP	TAB	CR	(nothing)	11ag

MOUSE and KEYSER, Codes and Cases

12

Mouse

ARC 7/1/73

Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3-

12a



## Viewspec Cards: COM formatted

Keypad Code						
00000		CD	BC	BW	(CA=001)	12b
00001	a	A		show one level less		12c
00010	b	B	"	show one level more		12d
00011	c	C	#	show all levels		12e
00100	d	D	\$	show first level		12f
00101	e	E	%	referenced stmt level		12g
00110	f	F	&	recreate display		12h
00111	g	G	'	show branch only		12i
01000	h	H	(	show all branches		12j
01001	i	I	)	show content passed		12k
01010	j	J	@	show all content		12l
01011	k	K	+	discard until 1st pass		12m
01100	l	L	=	show plex only		12n
01101	m	M	*	statement nums/SIDs on		12o
01110	n	N	/	stmt nums/SIDs off		12p
01111	o	O	"	frozen statements on		12q
10000	p	P	0	frozen statements off		12r
10001	q	Q	1	show one line less		12s
10010	r	R	2	show one line more		12t
10011	s	S	3	show all lines		12u
10100	t	T	4	show first lines only		12v
10101	u	U	5	no defer display		12w
10110	v	V	6	defer recreate display		12x
10111	w	W	7	all lines, all levels		12y

Viewspec Cards; COM formatted

11000	x	X	8	one line, one level	12a@
11001	y	Y	9	blank lines on	12aa
11010	z	Z	=	blank lines off	12ab
11011	,	<	[	(nothing)	12ac
11100	.	>	]	(nothing)	12ad
11101	;	:	-	(nothing)	12ae
11110	?	\		ALT centerdot	12af
11111	SP	TAB	CR	(nothing)	12ag

MOUSE and KEYSSET, Codes and Cases

13

Mouse

ARC 7/1/73

Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3-

13a

Keyset Code

13b

00000		CD	BC	BW	(CA=001)	13c
00001	a	A			show one level less	13d
00010	b	B	"		show one level more	13e
00011	c	C	#		show all levels	13f
00100	d	D	\$		show first level	13g
00101	e	E	%		referenced stmt level	13h
00110	f	F	&		recreate display	13i
00111	g	G	*		show branch only	13j
01000	h	H	(		show all branches	13k
01001	i	I	)		show content passed	13l
01010	j	J	@		show all content	13m
01011	k	K	+		discard until 1st pass	13n
01100	l	L	=		show plex only	13o

Viewspec Cards: COM formatted

01101	m	M	*	statement nums/SIDs on	13p
01110	n	N	/	stmt nums/SIDs off	13q
01111	o	O	"	frozen statements on	13r
10000	p	P	0	frozen statements off	13s
10001	q	Q	1	show one line less	13t
10010	r	R	2	show one line more	13u
10011	s	S	3	show all lines	13v
10100	t	T	4	show first lines only	13w
10101	u	U	5	no defer display	13x
10110	v	V	6	defer recreate display	13y
10111	w	W	7	all lines, all levels	13z
11000	x	X	8	one line, one level	13a@
11001	y	Y	9	blank lines on	13aa
11010	z	Z	=	blank lines off	13ab
11011	,	<	[	(nothing)	13ac
11100	.	>	]	(nothing)	13ad
11101	;	:	-	(nothing)	13ae
11110	?	\	ALT	centerdot	13af
11111	SP	TAB	CR	(nothing)	13ag

MOUSE and KEYSSET, Codes and Cases 14

Mouse  
 Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3- 14a

ARC 7/1/73

Keysset Code 14b

00000 CD BC BW (CA=001) 14c

00001 a A ↓ show one level less 14d

## Viewspec Cards; COM formatted

00010	b	B	"	show one level more	14e
00011	c	C	#	show all levels	14f
00100	d	D	\$	show first level	14g
00101	e	E	%	referenced stmt level	14h
00110	f	F	&	recreate display	14i
00111	g	G	'	show branch only	14j
01000	h	H	(	show all branches	14k
01001	i	I	)	show content passed	14l
01010	j	J	@	show all content	14m
01011	k	K	+	discard until 1st pass	14n
01100	l	L	=	show plex only	14o
01101	m	M	*	statement nums/SIDs on	14p
01110	n	N	/	stmt nums/SIDs off	14q
01111	o	O	"	frozen statements on	14r
10000	p	P	0	frozen statements off	14s
10001	q	Q	1	show one line less	14t
10010	r	R	2	show one line more	14u
10011	s	S	3	show all lines	14v
10100	t	T	4	show first lines only	14w
10101	u	U	5	no defer display	14x
10110	v	V	6	defer recreate display	14y
10111	w	W	7	all lines, all levels	14z
11000	x	X	8	one line, one level	14a@
11001	y	Y	9	blank lines on	14aa
11010	z	Z	=	blank lines off	14ab

Viewspec Cards: COM formatted

11011	,	<	[	(nothing)	14ac
11100	.	>	]	(nothing)	14ad
11101	:	:	=	(nothing)	14ae
11110	?	\		ALT centerdot	14af
11111	SP	TAB	CR	(nothing)	14ag

MOUSE and KEYSSET, Codes and Cases 15

Mouse ARC 7/1/73

Buttons:	000	010	100	110	
Case:	-0-	-1-	-2-	-3-	15a

Keyset Code 15b

00000		CD	BC	BW	(CA=001)	15c
00001	a	A	!		show one level less	15d
00010	b	B	"		show one level more	15e
00011	c	C	#		show all levels	15f
00100	d	D	\$		show first level	15g
00101	e	E	%		referenced stmt level	15h
00110	f	F	&		recreate display	15i
00111	g	G	'		show branch only	15j
01000	h	H	(		show all branches	15k
01001	i	I	)		show content passed	15l
01010	j	J	@		show all content	15m
01011	k	K	+		discard until 1st pass	15n
01100	l	L	=		show plex only	15o
01101	m	M	*		statement nums/SIDs on	15p
01110	n	N	/		stmt nums/SIDs off	15q
01111	o	O	"		frozen statements on	15r

Viewspec Cards: COM formatted

10000	p	P	0	frozen statements off	15s
10001	q	Q	1	show one line less	15t
10010	r	R	2	show one line more	15u
10011	s	S	3	show all lines	15v
10100	t	T	4	show first lines only	15w
10101	u	U	5	no defer display	15x
10110	v	V	6	defer recreate display	15y
10111	w	W	7	all lines, all levels	15z
11000	x	X	8	one line, one level	15a@
11001	y	Y	9	blank lines on	15aa
11010	z	Z	=	blank lines off	15ab
11011	,	<	[	(nothing)	15ac
11100	.	>	]	(nothing)	15ad
11101	;	!	-	(nothing)	15ae
11110	?	\	ALT	centerdot	15af
11111	SP	TAB	CR	(nothing)	15ag

MOUSE and KEYSSET, Codes and Cases

16

Mouse

ARC 7/1/73

Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3-

16a

Keyset Code

16b

00000		CD	BC	BW	(CA=001)	16c
00001	a	A		show one level less		16d
00010	b	B	"	show one level more		16e
00011	c	C	#	show all levels		16f
00100	d	D	s	show first level		16g

## Viewspec Cards: COM formatted

00101	e	E	%	referenced stmt level	16h
00110	f	F	&	recreate display	16i
00111	g	G	'	show branch only	16j
01000	h	H	(	show all branches	16k
01001	i	I	)	show content passed	16l
01010	j	J	@	show all content	16m
01011	k	K	+	discard until 1st pass	16n
01100	l	L	=	show plex only	16o
01101	m	M	*	statement nums/SIDs on	16p
01110	n	N	/	stmt nums/SIDs off	16q
01111	o	O	"	frozen statements on	16r
10000	p	P	0	frozen statements off	16s
10001	q	Q	1	show one line less	16t
10010	r	R	2	show one line more	16u
10011	s	S	3	show all lines	16v
10100	t	T	4	show first lines only	16w
10101	u	U	5	no defer display	16x
10110	v	V	6	defer recreate display	16y
10111	w	W	7	all lines, all levels	16z
11000	x	X	8	one line, one level	16a@
11001	y	Y	9	blank lines on	16aa
11010	z	Z	=	blank lines off	16ab
11011	,	<	[	(nothing)	16ac
11100	.	>	]	(nothing)	16ad
11101	;	:	-	(nothing)	16ae

Viewspec Cards: COM formatted

11110 ? \ ALT centerdot 16af  
 11111 SP TAB CR (nothing) 16ag

MOUSE and KEYSSET, Codes and Cases 17

Mouse ARC 7/1/73

Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3- 17a

Keysset Code 17b

00000		CD	BC	BW	(CA=001)	17c
00001	a	A			show one level less	17d
00010	b	B	"		show one level more	17e
00011	c	C	#		show all levels	17f
00100	d	D	\$		show first level	17g
00101	e	E	%		referenced stmt level	17h
00110	f	F	&		recreate display	17i
00111	g	G	'		show branch only	17j
01000	h	H	(		show all branches	17k
01001	i	I	)		show content passed	17l
01010	j	J	@		show all content	17m
01011	k	K	+		discard until 1st pass	17n
01100	l	L	=		show plex only	17o
01101	m	M	*		statement nums/SIDs on	17p
01110	n	N	/		stmt nums/SIDs off	17q
01111	o	O	^		frozen statements on	17r
10000	p	P	0		frozen statements off	17s
10001	q	Q	1		show one line less	17t
10010	r	R	2		show one line more	17u



Viewspec Cards: COM formatted

10011	s	S	3	show all lines	17v
10100	t	T	4	show first lines only	17w
10101	u	U	5	no defer display	17x
10110	v	V	6	defer recreate display	17y
10111	w	W	7	all lines, all levels	17z
11000	x	X	8	one line, one level	17ae
11001	y	Y	9	blank lines on	17aa
11010	z	Z	=	blank lines off	17ab
11011	,	<	[	(nothing)	17ac
11100	.	>	]	(nothing)	17ad
11101	;	!	-	(nothing)	17ae
11110	?	\		ALT centerdot	17af
11111	SP	TAB	CR	(nothing)	17ag

MOUSE and KEYSSET, Codes and Cases 18

Mouse ARC 7/1/73

Buttons: 000 010 100 110  
 Case: -0- -1- -2- -3- 18a

Keyset Code 18b

00000		CD	BC	BW	(CA=001)	18c
00001	a	A	!	show one level less		18d
00010	b	B	"	show one level more		18e
00011	c	C	#	show all levels		18f
00100	d	D	\$	show first level		18g
00101	e	E	%	referenced stmt level		18h
00110	f	F	&	recreate display		18i
00111	g	G	'	show branch only		18j

## Viewspec Cards: COM formatted

01000	h	H	(	show all branches	18k
01001	i	I	)	show content passed	18l
01010	j	J	@	show all content	18m
01011	k	K	+	discard until 1st pass	18n
01100	l	L	=	show plex only	18o
01101	m	M	*	statement nums/SIDs on	18p
01110	n	N	/	stmt nums/SIDs off	18q
01111	o	O	"	frozen statements on	18r
10000	p	P	0	frozen statements off	18s
10001	q	Q	1	show one line less	18t
10010	r	R	2	show one line more	18u
10011	s	S	3	show all lines	18v
10100	t	T	4	show first lines only	18w
10101	u	U	5	no defer display	18x
10110	v	V	6	defer recreate display	18y
10111	w	W	7	all lines, all levels	18z
11000	x	X	8	one line, one level	18a@
11001	y	Y	9	blank lines on	18aa
11010	z	Z	=	blank lines off	18ab
11011	,	<	[	(nothing)	18ac
11100	.	>	]	(nothing)	18ad
11101	;	!	-	(nothing)	18ae
11110	?	\	ALT	centerdot	18af
11111	SP	TAB	CR	(nothing)	18ag

## Anthropomorphism Can Aid Clarity

In a recent message Dick urged us to limit anthropomorphism in the Help data base such as " ...At this point NLS expects...". I grant constructions of this kind may be inappropriate in given cases and may cloy a reader who meets them too often,, but I resist indiscriminate reduction.

1

We hear software people speaking anthropomorphically a great deal. They frequently go far beyond the usage of the HELP data base, e.g. "then I hand you this guy" meaning "then this procedure that I am considering for the moment yields a parameter that passes to this other procedure that you are considering." There is a natural genius in the way talkers talk; writers should always check it out. I think people speak in that way because it is clear. Personal constructions are in general clearer and more forceful in English than impersonal constructions and we should take advantage of that whenever we can.

2